The practice of Registered Nurses in rural and remote areas of Australia: Case study research

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Abstract

This study aimed to delineate the roles and responsibilities of Registered Nurses (RNs) working in rural and remote areas of Australia and to explore the clinical and educational preparation required to fulfil such roles and responsibilitie .

Whilst much research exists surrounding rural and remote nursing, few studies have looked in depth at the roles and responsibilities and necessary preparation for rural and remote nursing. Indeed, much of the literature encompasses rural and remote nurse data within the wider metropolitan workforce. There is limited research which clearly defines the rural and remote populations being studied. This study, however, clearly delineates those nurses working in rural and remote locations by the Australian Standard Geographical Classification – Remote Areas system (ASGC-RA).

It is known that nursing is facing a workforce crisis with many nurses due to retire in the next ten to 15 years. It is also known that this is worse in rural and remote areas in which the average age of the workforce is higher and there are issues with recruitment and retention of nurses. Thus, there is a need to understand the practice of RNs, preparation for the role and challenges that need to be addressed in order that such workforce issues can be addressed.

The study was carried out utilising Yin's case study research design. A multiple embedded case study design was selected as appropriate to explore and explain in greater detail the practice of Registered Nurses. The study was undertaken in two States of Australia, Queensland (QLD) and New South Wales (NSW). The philosophical paradigm in which the study is situated is that of social constructivism in which there is a belief that knowledge is generated through experiences and interactions with the social world.

The study comprised three phases of data collection and analysis. The first, a content analysis of documents relating to the context of nursing and more specifically rural and

remote nursing, second, a content analysis of an online questionnaire and third, a thematic analysis of semi-structured interviews revealing five major themes.

Data from the three phases were converged through pattern matching and empirical propositions were derived from the data. Alongside many replicated findings the study also generated new findings. Major new findings included the influence of expectation on practice, perceived inadequate managerial understanding and support of the rural and remote RN role, an inability to fulfil the Primary Health Care (PHC) model of practice, the level of experience necessary to work in rural and remote areas, lack of preparation in mental health and maternity, an inability to access professional development, limited collaboration and networking opportunities, and misperceptions held by metropolitan staff.

The Theory of Cognitive Dissonance was applied to the findings to explain the practice of the RN working in rural and remote areas. Through this theory it is evident that a number of implications and recommendations can be proposed in the areas of practice, organisation, education, policy and future research.

Personal acknowledgments

I've never liked the analogy of life being like a roller coaster but in considering this doctoral journey it is somewhat fitting. My first considerations of undertaking a PhD occurred having just returned from maternity leave after the birth of my first child Jack ten years ago. Little did I know then that that first conversation would lead to beginning a PhD, having my second child Amelia, moving to the other side of the world, starting a new PhD topic and having my third child Hannah, having numerous changes to my supervisory team, all whilst working full-time! To say it has been a challenge is an understatement and as I sit here writing this, I find it hard to believe that I have finally got to where I am. Of course, this journey was one that could never have been completed alone and I am forever grateful to all my family, friends and colleagues that have offered support, words of wisdom, refreshments and a shoulder to cry on.

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15th April 2019

(Original signature of Candidate) Date

Declaration of authorship and originality

I, the undersigned author, declare that all of the research and discussion presented in this thesis is original work performed by the author. No content of this thesis has been submitted or considered either in whole or in part, at any tertiary institute or university for a degree or any other category of award. I also declare that any material presented in this thesis performed by another person or institute has been referenced and listed in the reference section.

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Abbreviations

A&E	Accident & Emergency
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AHP	Allied Health Professional
AHPRA	Australian Health Practitioner Regulation Agency
AHW	Aboriginal Health Worker
AIHW	Australian Institute of Health and Welfare
AIN	Assistant in Nursing
ALS	Advanced Life Support
ANMAC	Australian Nursing and Midwifery Accreditation Committee
ANMC	Australian Nursing and Midwifery Council
ANP	Advanced Nursing Practice
ARIA+	Accessibility/Remoteness Index of Australia
ASGC-RA	Australian Standard Geographical Classification – Remoteness Area
ATODs	Alcohol, Tobacco and Other Drugs
BLS	Basic Life Support
CFHN	Child and Family Health Nurse

CN	Clinical Nurse
CNC	Clinical Nurse Consultant
CNE	Clinical Nurse Educator
CNS	Clinical Nurse Specialist
CPD	Continuing Professional Development
CRANA	Council of Remote Area Nurses of Australia
DoH	Department of Health
DON	Director of Nursing
DR	Doctor
ED	Emergency Department
EDoN	Executive Director of Nursing
EEN	Endorsed Enrolled Nurse
EN	Enrolled Nurse
ET	Endotracheal
FLECC	First Line Emergency Care Course
GP	General Practitioner
HCP	Health Care Practitioner
HETI	Health Education and Training Institute
HHS	Hospital and Health Services

HREC	Human Research Ethics Committee
HSM	Health Service Manager
ICN	International Council of Nurses
ICU	Intensive Care Unit
IM	Intramuscular
IR	Inner Regional
IT	Information Technology
IV	Intravenous
KMs	Kilometres
KPI	Key Performance Indicator
LHD	Local Health District
MBS	Medical Benefits Scheme
MC	Major City
MEC	Maternity Emergency Care
MET	Medical Emergency Team
MH	Mental Health
MO	Medical Officer
MPHS	Multipurpose Health Service
MVA	Moving Vehicle Accident

NBN	National Broadcasting Network
NE	Nurse Educator
NMBA	Nursing and Midwifery Board of Australia
NP	Nurse Practitioner
NSW	New South Wales
NT	Northern Territory
NUM	Nursing Unit Manager
ORR	Outer Regional, Rural, Remote
OT	Occupational Therapist
PALS	Paediatric Advanced Life Support
PaRROT	Pathways to Rural and Remote Orientation Training
PBS	Pharmaceutical Benefits Scheme
PCCM	Primary Clinical Care Manual
PD	Professional Development
PHC	Primary Health Care
PICC	Peripherally Inserted Central Catheter
PN	Practice Nurse
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analysis

QAS	Queensland Ambulance Service
QH	Queensland Health
QLD	Queensland
RA	Remote Area
RAN	Remote Area Nurse
RAN/M	Remote Area Nurse/Midwife
RANIP	Remote Area Nursing Incentive Package
REC	Remote Emergency Care
RFDS	Royal Flying Doctor Service
RGO	Research Governance Officer
RIPRN	Rural and Isolated Practice Registered Nurse
RM	Registered Midwife
RN	Registered Nurse
RRMA	Rural Remote and Metropolitan Areas
RA1	Major Cities of Australia
RA2	Inner regional Australia
RA3	Outer regional (rural) Australia
RA4	Remote Australia
RA5	Very remote Australia

SA	South Australia
SOP	Scope of Practice
SSA	Site-Specific Application
STM	Standard Treatment Manual
SW	Social Work/er
TEMSU	Telehealth Emergency Management Support Unit
TNCC	Trauma Nursing Core Course
TOIL	Time Owing in Lieu
UK	United Kingdom
USA	United States of America
WA	Western Australia
WHO	World Health Organisation
4WD	4 Wheel Drive

"There’s an energy out here that I cannot quantify, and whether it be the people or the land or the sky, I don’t know, but it has a draw and a pull and a magic that is just so unique that I just feel humbled to be a part of it"

NSW02

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CHAPTER 1. INTRODUCTION

1.1 Introduction

Australia is the world's sixth largest country geographically with a population of approximately 25 million (Australian Bureau of Statistics [ABS], 2018). The geographical landscape of Australia is vast with 78% of land classified as remote or very remote (Dade-Smith, 2016). These remote areas have small, spread out populations with each community being different, demonstrating cultural, geographic and contextual diversity (Bourke et al., 2012; Birks et al., 2010). Differences include variations in climate, types of industry or agriculture, infrastructure, employment, demographics, and cultural groupings (Dade-Smith, 2016). The social determinants of health are evidenced by the health of rural and remote populations, in particular Indigenous peoples, with lower levels of education, and employment opportunities, lower household income and reduced availability and affordability of essential supplies such as petrol and fresh food in remote areas (AIHW, 2016).

The geographical landscape of Australia and its remote areas is vastly different from that seen globally. Comparisons can be drawn from just two other countries, these being areas of Northern USA and Canada. These areas, like the rural and remote areas of Australia, also see nurses working in isolation in areas which have poorer health outcomes and limited access to sustainable health care services (deValpine, 2014; Banner, MacLeod & Johnston, 2010; O'Neill, 2010; Andrews et al., 2005).

Differences can be seen between the geographic distribution of the population across Australia with 69% of Australians residing in major cities, 20% in regional areas, 9% in rural areas and 2.3% in remote and very remote areas (ABS, 2010). Another difference is just 1% of Indigenous people reside in major cities as compared to 6% in rural, 15% in remote and 49% in very remote areas (ABS, 2010).

Alongside population differences, rural and remote areas also see a difference in access to health services due to the vast geographic spread. Populations in rural, remote and very remote areas have a decreasing level of access to resource infrastructure and in particular health care services. The further remote a community, the less accessible and sustainable health resources become. In these areas nurses are often the first point of contact with the health care system, with many remote and very remote communities having no medical services available onsite (Francis et al., 2016; Turner, Keyzer & Rudge, 2007).

It is argued that health care services and the role of the nurse working in rural, remote and very remote Australia is unique due to the contextual characteristics placed on their practice. Working in this unique environment, often with minimal support, requires nurses to work at an advanced level of practice, often beyond their scope of practice[1] (Francis & Mills, 2011; Lenthall et al., 2011; Lenthall, Wakerman & Knight, 2009; Mills, Lennon & Francis, 2007). To complicate this situation further, currently there is no legislation regarding the preparation of the nurse working in rural and remote areas.

Many stressors exist for these nurses which contribute to burnout, retention issues and poor workforce recruitment (Queensland Nurses Union, 2011; ACIL, 2009; Henwood, Eley, Parker, Tuckett & Hegney, 2009). Lack of staff is predicted to increase once 'baby boomers' retire in the next 10 years. Data obtained from the Department of Health demonstrates that in 2016 31% of Registered Nurses and Midwives working in rural, remote and very remote areas were aged 55 and over. In comparison, in major cities and inner regional areas this figure is 6% lower at 25% (Department of Health, 2016). There is an urgent need to examine roles and responsibilities in rural and remote nursing, as well as the preparation for these roles for essential workforce planning.

[1] Within this thesis the term 'scope of practice' is consistent with the NMBA (2016) definition which is contained in the glossary.

This chapter introduces the study, outlines interests and motivations of the researcher to choose this topic and presents the significance of this research. The research aimed to delineate the unique practice of Registered Nurses (RNs) and explore the preparation required for working in rural and remote areas in two States of Australia; Queensland (QLD) and New South Wales (NSW). A discussion about the geographical rural and remote landscape in Australia is provided to contextualise the study and assist readers to understand the complexity of nursing in these regions. Finally, a timeline and overview of the thesis structure is provided.

1.2 Interests and motivations of the researcher

The researcher (I) was born and lived in the United Kingdom (UK) up until early 2013 when I immigrated to Australia. I had worked as a nurse and an academic for 13 years in a variety of UK institutions. I had been part of the project team establishing and working in a nurse-led Diagnostic and Treatment Centre. I had also been teaching into and coordinating the Masters in Nursing (Advanced Nurse Practitioner) pathway at a large London University. I have always had an interest in how nurses are prepared for practice, advanced practice and nurse-led care. With advanced nursing practice unregulated in England, my first topic idea regarding a PhD study was in exploring how nurses were prepared for advanced nursing practice roles and the effectiveness of such preparation in the UK. However, upon moving to Australia I realised I would have to change the subject to align with differences in regulations in a different country. A great deal of time was spent 'getting to know' Australia and the health care system. During this time, I became aware of and curious about rural and remote Australia and what this meant for the delivery of health care. Historically, the Australian Nurse Practitioner evolved initially to address the need for advanced practice in rural and remote nursing in Australia and this area was aligned with my previous interest of advanced practice when living in England. Discussing

this with my Principal Supervisor, who herself had grown up in rural Australia and had lived in “rural” England, she challenged me with the question “what do you know of this area of Australia and the practice of nurses working here/there?” She cautioned that the area of inquiry was unique compared to other areas of nursing and perhaps it was advisable to first explore the curiosity I had to see if the topic would sustain my interest. So, with husband and children we set out with a full car to drive to rural and remote NSW to gain first impressions.

The geographical landscape of Australia was like nothing that I had seen or experienced in the UK. The UK population of 66 million; is double that of Australia, yet the UK is densely populated compared to the Australian outback which was sparsely populated. Hour after hour driving along dusty roads seeing nothing but trees, fences, kangaroos (dead on the road and sometimes alive at dusk or dawn) and the occasional vehicle; I was fascinated. The harsh bushland and vastness of the geography added context for me, knowing the challenges noted in the literature that nurses face working in these areas. These travels inspired an admiration for rural and remote nurses.

It was evident throughout the literature that nurses were working in a unique environment, often with minimal support requiring them to work at an advanced level and sometimes beyond their scope of practice (Francis & Mills, 2011; Lenthall et al., 2011; Lenthall et al., 2009; Mills et al., 2007a). What was also noted were many stressors for these nurses contributing to burnout, retention and poor recruitment, resulting in further hardship (Lenthall et al., 2018; Opie et al., 2010a; Henwood et al., 2009). One particular stressor was access to professional development reported by many nurses who felt ill-prepared for the vast array of nursing practices that they were required to undertake (Lenthall et al., 2009).

The uniqueness of the geographical context of rural and remote Australia along with the cries in the literature for advanced practice and improved preparedness for practice

became the drivers for this study. I wanted to fill the gaps in the knowledge about the unique practice of rural and remote nursing in Australia.

1.3 Background to research

The context of rural and remote Australia is key to this study. It is the context that makes the practice of a rural and remote nurse so unique and it is therefore important that this is presented as background to this research. The discussion that follows presents a window into rural and remote Australia both from a geographical and practice perspective.

1.3.1 Defining rural and remote Australia

There is no definitive definition as to what constitutes a metropolitan, rural or remote area within the literature, indeed many researchers self-define these areas based on their own research. However, when diverse places are grouped together inappropriately, variations within communities may become obscured, negatively affecting health and workforce allocations (McGrail & Humphreys, 2009). A number of decisions are made at a policy level on a defined geographical area such as workforce needs, resource allocation and a community's health care needs. Therefore, for effective health policy and planning, information regarding how populations and communities differ is important. Since 1994 geographical classification systems have been used to guide researchers and policy makers by classifying areas according to their remoteness. There are three key classification systems used in Australia, which include:

- The Rural, Remote and Metropolitan Area (RRMA) classification,
- The Accessibility/Remoteness Index of Australia (ARIA) classification, and
- The Australian Standard Geographical Classification – Remoteness Areas (ASGC-RA) system.

It was important for this study to use one system which would accurately represent nurses working within rural and remote communities and provide a true reflection of their 'rurality' or 'remoteness'. For the purpose of this study the Australian Geographical Classification – Remoteness Areas (ASGC-RA) system was used to identify whether or not the potential participant's practice setting truly constituted a rural, remote or very remote area of practice as defined for the study.

The ASGC-RA was chosen over the RRMA as the level of accessibility to services was more clearly defined by measuring ease of accessibility as opposed to direct distances to service centres alone. This was important for this study as accessibility to services, particularly in an emergency, is dependent on the terrain and whether a vehicle can even access an area, or alternatively access via air may be required (Bourke et al., 2012). For many remote areas unsealed and dust filled roads with animals roaming is hazardous. In addition, in 2009 the government also replaced the use of the RRMA with the ASGC when considering the administration of different programs.

The ASGC-RA system was released by the Australian Bureau of Statistics (ABS) in 2001 and was based on an enhanced measure of remoteness (ARIA+) (Australian Institute to Health and Welfare, 2004, p. 3). A 1km grid that covers all of Australia is used to calculate road distances separating localities from five levels of service centres as delineated by population size. The index score is then calculated by obtaining an aggregate of the five scores and the area is assigned to one of five categories. These are:

- Major cities of Australia (RA1);
- Inner regional Australia (RA2);
- Outer regional (rural) Australia (RA3);
- Remote Australia (RA4); and
- Very remote Australia (RA5).

Figure 1.1 illustrates the areas of Australia as classified by the ASGC-RA system. Chapter Three discusses further how the classification system was used in defining the units of analysis for this case study.

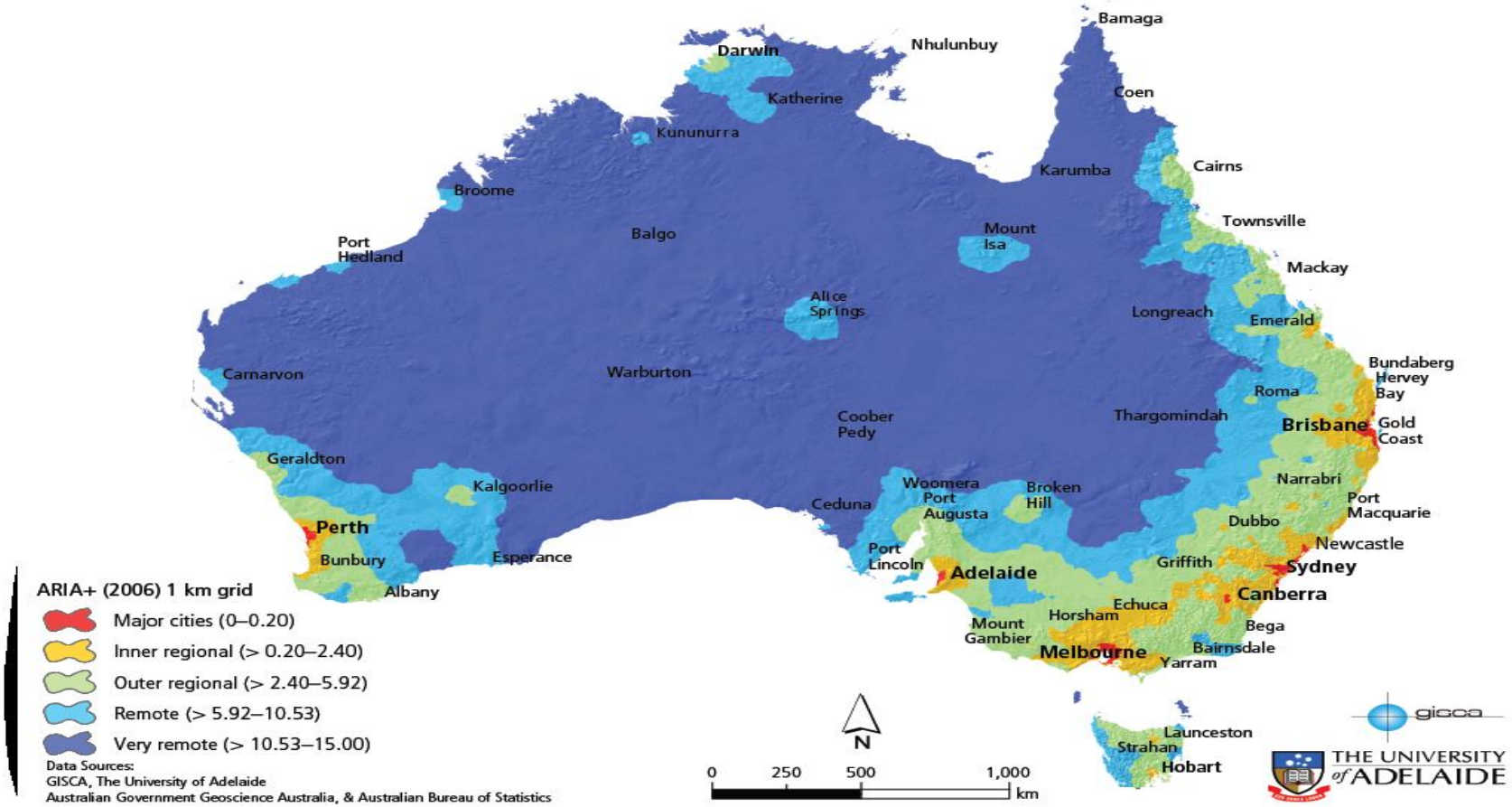


Figure 1.1 Map of Australia showing areas of remoteness (ASGC-RA, 2006)

Source: https://aifs.gov.au/publications/families-regional-rural-and-remote-australia/figure1

1.3.1.1 Accessibility

Living in rural and remote Australia often means that people do not have regular or easy access to services they need. The more remotely people live, the less services are available. There are a number of reasons that access to services may be poor and these include, the geographical availability of services due to the size of the community being too small to sustain them (Bourke et al., 2012), the physical accessibility to reach services such as the condition of the roads and the suitability of the health care provider for an individual. Services that are known to be limited include, allied health, private health services and specialist services. A number of models have been implemented to improve access to health care services including outreach, primary health care and telehealth.

There are a number of visiting services/professionals which may come to rural and remote areas. These include the Royal Flying Doctor Services (RFDS) who fly-in specialists such as paediatricians, dentists and mental health clinicians or specialist nurse-led services such as women's health. The RFDS also supports remote area nurses through telephone consultations and the evacuation of emergency cases. Aside from the single resident nurse located in a small health clinic onsite, very remote areas are totally supported by systems of 'fly in-fly out' health services (such as RFDS), or by health teams driving to health services for designated clinic days (Hussain, Maple, Hunter, Mapedzahama & Reddy, 2015). This has substantial benefits to community members that would otherwise have to travel vast distances at great personal expense to receive such treatment or review. However, this provision has not eliminated the need for people to still travel to other services, particularly those requiring specialist services which are located in major cities. Such services can involve three days or more of travel for what may be a 15-minute consultation. This also adds a lengthy stay in accommodation for visits away from home. Examples of these events are for surgical or medical specialist reviews, or to receive treatment such as chemotherapy, radiotherapy or rehabilitation, for example. Costs associated with these visits can be great and may deter people from accessing services

that they need, particularly when individuals have livelihoods to maintain, or families are left vulnerable as a result of such domestic disruption. There are also issues related to continuation of care and an absence of ongoing monitoring and evaluation of health outcomes once people have left the city and have returned to their communities (Wakerman et al., 2008).

Leaving the community in which they live can be particularly difficult for Indigenous people whose connectedness to land is essential for their health and wellbeing (Rigby, Rosen, Berry & Hart, 2011). Many find it extremely difficult to leave the land and enter a service which is westernised where their values and beliefs may be in conflict with the organisation's values and way of operating. This can be further compounded if there are language barriers. Moreover, negotiating a fast-paced and unknown environment can be very frightening. These factors contribute to health disparities seen in populations living in these areas.

1.3.1.2 Health disparities

Those living in rural and remote Australia experience poorer health and poorer access to health services than those living in urban and metropolitan areas (AIHW, 2016; Bourke et al., 2012; Schofield, Shrestha & Callander, 2012; Rural Health Standing Committee 2011; Wakerman et al., 2008). A higher proportion of the population in these areas are Indigenous (Bourke et al., 2012; Rural Health Standing Committee 2011) and this group have further health disparities in their mortality and morbidity as compared to the broader non-Indigenous population, including a 20 year decrease in life. Indeed, the burden of disease for Indigenous Australians is more than twice that of non-Indigenous people (Randall, Lujic, Havard, Eades & Jorm, 2018). Conditions such as diabetes, kidney disease, increased rates of mental illness, particularly in younger age groups, and higher rates of comorbidities in older Indigenous populations all contribute to this burden of disease (Randall et al., 2018; AIHW, 2009; Vos, Barker, Begg, Stanley & Lopez, 2009).

Poorer health outcomes for those living in rural and remote areas is not unique to Australia as this trend is seen globally (MacLeod et al., 2017; Bourke et al., 2012).

Rural and remote areas have always had, and continue to have, reduced access to healthcare practitioners (Bourke et al., 2012; Chater, 2008). Whilst some authors have discussed the 'stoicism' of the rural population with rural Australians using fewer Medicare services and visiting their GP less times than average (Chater, 2008), others have argued that this is less about stoicism and more about simply not having the healthcare services to access, or not wanting to deal with the challenge of it (Guerin & Guerin, 2009). Access to primary health care providers is of concern because of the reduced opportunity for health promotion, preventative care and early detection of disease, and it is not surprising therefore, that rural and remote communities are known to have a higher number of hospitalisations and prevalence of risk factors as compared to metropolitan areas (AIHW, 2016; Rural Health Standing Committee 2011; Wakerman et al., 2008).

Compared to those living in metropolitan cities, rural and remote populations, particularly Indigenous people, have: a lower life expectancy, poorer self-reported health, higher rates of mortality due to injuries arising from motor vehicle accidents and workplace injuries, higher rates of suicide, lower birth weights and higher rates of teenage pregnancy, higher rates of risky health behaviours such as alcohol, smoking, poor nutrition, higher chronic diseases such as diabetes, cardiovascular and respiratory disease (AIHW, 2016).

1.3.2 Defining rural and remote practice

There is no 'one size fits all' approach to nursing in rural and remote communities (Birks et al., 2010) and models of healthcare need to be continually adapted depending on the needs of the local community. Appropriately, addressing individual health care needs is complex with different individuals defining health and wellbeing according to their own values. For example, the stoic rural farmer defines health as the ability to fulfil his daily tasks as compared to an Indigenous person whose definition of health is far wider,

encompassing spiritual aspects, physical appearance and land rights (Dade-Smith, 2016). Further, the contextual complexities surrounding practice such as the access to human and material resources required to deliver patient centred care are major influences on the roles of rural and remote nurses.

The terms ‘rural’ and ‘remote’ are often used together with a lack of consistency in their use and understanding of the differences between them. The geographical classification system provides guidance to differentiate between metropolitan, regional, remote and very remote areas. Alongside the importance of geographical differentiation, it is also important to provide a practice-based definition of remoteness.

In defining rural and remote practice, precise definitions are not readily available and where a definition has been put forward it has in the main, been derived from the medical profession and their research. When attempting to define what makes rural and remote nursing or practice different a list of distinguishing factors between rural and remote and urban or metropolitan areas exists rather than a common definition. In turning to the global literature, similarities can be seen to the United States of America (USA) and Canada. In 2008 the Canadian Association for Rural and Remote Nursing (CARRN) listed a number of practice and setting characteristics that distinguish rural and remote from urban nursing practice. Each of these characteristics can be seen in rural and remote Australia. Whilst global definitions still have a medical focus, they do acknowledge the extended role of non-urban practitioners and issues of isolation and accessibility. From the literature it is evident that it is the context that defines rural and remote practice.

1.3.2.1 Rural nurses

For the purpose of this study nurses working in rural areas are classified within the RA3 group of the ASGC system and are recognised as rural nurses practising outside metropolitan areas. Such nurses are often working in a hospital or community setting in a larger town, working as part of a multidisciplinary team with quick access to a doctor.

Common factors cited in the Australian literature that define rural nurses include; advanced or extended roles, geographical distances, accessibility to a doctor, diversity and population size (Hegney, Eley, Osseiran-Moisson & Francis, 2015; Mills, Birks & Hegney, 2010).

Unlike those nurses working in remote areas, rural nurses no longer have their own professional body that they can join to access networking opportunities, support and advice. However, there is a rural nurse's 'community of interest' within the Australian College of Nursing and Midwifery (Dade-Smith, 2016). As such, many nurses have joined the Council of Remote Area Nurses of Australia (CRANA), the professional body for remote area nurses.

1.3.2.2 Remote area nurses

A remote area nurse practices in remote and very remote areas of Australia and includes those nurses in levels RA4 and RA5 for this study. There are a higher percentage of men working in remote areas as compared to rural areas and the workforce is older (Eley, Francis & Hegney, 2014; Lenthall et al., 2011). The majority of remote area nurses work in primary health care clinics largely in remote Indigenous communities. These nurses differ from rural nurses in that their access to a doctor is more limited with no immediate access (Lenthall et al., 2011). With this absence of immediate support, remote area nurses work to fulfil elements of care that would normally be undertaken by other professionals, and this activity is known as advanced nursing practice, where extensions to practice are common. Remote area nurses usually work closely with Indigenous/Aboriginal Health Workers (AHW). Indeed, in many communities an AHW is the first point of contact for people when entering services (Birks et al., 2010) with RNs having a supportive function with AHWs.

Some remote nurses work as sole practitioners being the only health care practitioner in a particular community or on an island. These sole practitioners work around the clock for

long periods of time before being relieved by another nurse to take some leave. These nurses are highly skilled, autonomous practitioners providing a range of services through extended skills and advanced knowledge. Remote area nurses can be seen to have an extended and expanded scope of practice, however as cited earlier, despite these advanced roles, there is no current regulation regarding preparation for remote area nursing.

The Council of Remote Area Nurses of Australia proposed back in 2003 that remote nurses are:

> '… Specialist practitioners that provide and coordinate a diverse range of health care services for remote disadvantaged or isolated populations within Australia and her Territories and undertake appropriate educational preparation for their practice. Their practice is guided by primary health care principles and includes emergency services, clinical care, health promotion and public health services. RANs work in a variety of settings including outback and isolated towns, islands, tourism settings, railway, mining, pastoral and indigenous communities.'
> (CRANA, 2003)

This definition has been criticised for not encompassing those remote nurses working in small hospitals (Lenthall et al., 2011). Since then publications by CRANA have not used a specific definition but instead list particular challenges that remote nurses face and the range of settings in which remote nurses may be employed (CRANA, 2013). This demonstrates the need to consider a number of other complexities alongside geographical classification that defines these areas.

1.3.2.3 Role of rural and remote nurses

In rural and remote locations nurses are the most prominent health care professional available and are often the first point of call for members of the community (Turner et al.,

2007). In some remote and very remote areas entire health care services are run by nurses alone (Francis et al., 2016; Lea & Cruickshank, 2005) with access to other health care professionals, including medical staff, through a visiting temporary service to the area (Hussain et al., 2015; Mills et al., 2010a). As a result, knowledge and a broad range of skills are necessary for rural and remote nursing practice, these nurses are described as generalist in nature rather than specialist (Henwood et al., 2009; Mills, Francis & Bonner, 2007a; Lea & Cruickshank, 2005).

Within a metropolitan or urban area, nurses generally specialise in one particular area (for example, cardiology, paediatrics, oncology), whereas in rural and remote areas nurses are required to be a 'jack of all trades' working with all ages across the lifespan and with unknown presentations (Hegney, 1996). Francis and Mills (2011) referred to contemporary rural practice as encompassing preventative, interventional and rehabilitative care. In one shift a nurse could be required to deal with aged care residents, acute inpatients, a roadside trauma, mental health and a maternity presentation. This range of knowledge and practice is not required in urban or metropolitan areas (Hegney et al., 2015).

1.3.2.4 Models of health service delivery

A number of publications at government level have promoted new models for care in rural and remote areas. Examples of such models include, Primary Health Care, telehealth and outreach services. There has, however, been limited evaluation of these services. A study by Birks et al. (2010) investigated current models being used in remote QLD and concluded that an effective model was one in which a Primary Health Care philosophy was embedded in practice. This is supported through the work of others including Dade-Smith (2016) who wrote the most appropriate health service model for Indigenous Australians is the comprehensive Primary Health Care approach. The Primary Health Care (PHC) model is based on the belief that everyone has the right to accessible, affordable and appropriate health care (World Health Organisation [WHO] 2018; McMurray & Clendon, 2015). It takes

a holistic approach based on social determinants of health, cultural safety, social justice, equity and community participation (Dade-Smith, 2016).

As part of the PHC model and in a bid to provide a higher level of culturally appropriate care to Indigenous Australians, the Aboriginal Community Controlled Health Service Organisations (ACCHSO) were created. These services provide face to face care to Indigenous and non-Indigenous people, based on a PHC model and are highly valued by community members (Dade-Smith, 2016). Aside from providing care in a culturally safe way, these services also help Indigenous Australians access and understand services available to them. One such example is the Close the Gap program for medications (Australian Government Department of Human Services, 2018) enabling Indigenous people to access affordable medications, which aims to improve compliance with medication and ultimately improve health outcomes. A number of policies are in place in the areas of education, housing, safety and employment to ensure sustainable health gains and the delivery of culturally secure health services (Australian Health Ministers Advisory Council, 2017).

Geographical differences (discussed in section 1.3.1) all have an influence on the roles of nurses. Each area brings diverse health care needs, different health care team members and variations as to how services are run. This provides many opportunities for rural and remote nurses, but with these opportunities are practical, professional and personal challenges. Understanding variances in communities is important for nurses, particularly when moving from one area to another either within state or interstate. Dade-Smith (2016) wrote that when nurses move from one community to another, they need to forget what they have learnt and relearn different cultural norms and practices, languages, differing health statuses and identify practical issues present in their new community. This is important in enabling delivery of appropriate care provision for specific needs and cultures of specific communities.

Contextual differences of many rural, remote and very remote communities can be seen to be of major influence on which model of care is the most appropriate for an area. The model of care in turn influences the practice of rural and remote nurses, bringing many opportunities but also many challenges in providing health care which is accessible, affordable and appropriate to all who live across rural and remote Australia.

In summary, the background to this study has provided a brief account of the unique nature of living and working in rural and remote areas of Australia. Evidence in the literature shows significant variations between individual rural and remote areas and indeed communities/towns within an area classified under the same ASGC-RA category. The unique needs of individual communities such as their geographical location and accessibility of healthcare professionals, will heavily influence the nurse's scope of practice (National Rural Health Alliance, 2005). It is argued that unique contextual factors lead to many nurses working in rural and remote areas in an advanced role.

1.4 Significance of research

Whilst much research has discussed issues affecting health care provision in rural and remote communities and the subsequent impact on the nursing workforce, few studies have looked in depth at the roles and responsibilities of Registered Nurses working in these locations on a day to day basis, how these roles fit within their scope of practice and what preparation nurses have had for such roles. In-depth exploration of rural/remote nursing roles and preparation for these localities has not been undertaken, but rather has been included with those studies which have also looked at metropolitan sites. Additionally, this study differentiates rural practice to remote practice, whereas most previous research has clustered these groups together. A further justification is that

research has not been published recently and as such this research is important in establishing whether the situation reported in previous literature still exists or has changed.

This research aimed to explore these areas to present evidence about the roles and responsibilities of rural and remote RNs and the preparation of these; as essential workforce planning. Importantly, this study explores these areas in line with a clear definition so that comparisons can be drawn across RNs working in different States and remote area classifications. Such findings are significant as they enable recommendations to be made regarding appropriate preparation of nurses working in rural and remote areas of Australia, influencing future workforce planning and patient/client safety (MacLeod et al., 2017).

1.5 Research aims

The aim of this study was to:

Delineate the roles and responsibilities of Registered Nurses working in rural and remote areas of Australia and to explore the clinical and educational preparation required to fulfil such roles and responsibilities.

1.6 Research questions

The research question asked:

What is the practice of Registered Nurses working in rural and remote areas of Australia?

The secondary research questions asked:

- What are the roles and responsibilities of RNs working within rural and remote areas of Australia?
- How do rural and remote nurses work within their registered scope of practice?
- How do RNs prepare for practice in order to fulfil their roles and responsibilities in rural and remote Australia?
- Why and to what extent are Eco-social influences important to the scope of nursing practice in rural and remote Australia?
- How do rural and remote nurses overcome barriers to sustain motivation and address challenges in providing effective health care provision?

1.7 Research approach

A case study approach guided by Yin (2014) was implemented with three sequential phases of data collection and analysis. The first research method implemented was document review, the second, a questionnaire and the third, interviews. Refer below to section 1.9 for further detail.

1.8 Timeline

This research was carried out between 2014 and 2018. Phase One data collection was undertaken in early 2016. Ethical approval and research governance clearance was obtained in August 2016 following which Phase Two data collection commenced. Phase Three data collection was carried out and completed by mid-2017.

1.9 Structure of thesis

This thesis follows a traditional qualitative structure and is comprised of eight chapters. This chapter has provided contextual background to the study and has outlined the research aim, questions and significance of the study. Chapter Two provides a review of literature drawing on previous work. As part of this, a systematic review focused on defining roles and responsibilities of Registered Nurses working in these areas is presented. Chapter Three provides detail about the chosen research design, case study as well as the steps taken to produce a rigorous research study. This chapter also presents the steps taken to obtain ethical and research governance approval.

Chapter Four, Five and Six provide an overview of each of the three phases of data analysis, specifically the findings for each phase. This was deemed a simple approach to presenting findings, however the researcher acknowledges that there are other ways in which the findings from case study research can be presented. This structure was chosen as each phase of this research is distinctly different. The methods of data collection differ, and different analysis techniques have been used. Chapter Four presents the findings of the document review (content analysis), Chapter Five presents the results of the online questionnaire (content analysis) and Chapter Six details the outcomes from rich interview data that was obtained through semi-structured telephone interviews (thematic analysis). Presenting the findings in this way allows the reader to gain an understanding of the findings of each phase, how each subsequent phase builds on previous findings, when there is still a gap where research questions are not yet answered, and when this occurs, how the next phase addresses these gaps. Data collection and analysis continues until research questions are answered, hence some findings are presented under the title of secondary research questions. In accordance with the principles of case study as set out by Yin (2014) each of these chapters discusses theoretical propositions and examines rival explanations where applicable.

Chapter Seven presents advanced analysis of all three phases of data, which aims to answer the overall main research question. This is achieved by converging all data from all three phases, then using pattern matching. A discussion of these key findings from the study are then presented in this chapter.

Chapter Eight concludes the thesis, presenting new knowledge. Whilst this study focuses on a unique geographical area, which is Australia, there are some findings which may be useful for other countries with similar large geographical areas of rural and remote nursing. These will be discussed in this final chapter. Finally, recommendations for future practice and future research in four areas; practice, policy, education and organisation are provided. Limitations are also presented to aid future researchers in this field.

When referring to participants within this study the terms ‘she’ or ‘her’ are used for simplicity. These terms, however, encompass both male and female Registered Nurses. In most cases, this thesis speaks in plural terms but acknowledges the uniqueness of practice between different geographical areas and for individual nurses.

1.10 Chapter summary

This chapter presented the contextual background for the study. It is evident that the geographical landscape of Australia is vast and brings with it many challenges in delivering accessible and sustainable health care services. RNs working in rural and remote areas may be the only immediate access people have to health care delivery. Thus, understanding the practice of RNs working in these areas alongside their preparation for doing so is necessary to recommend future practice, policy and education. This is particularly important in light of nursing workforce shortages in these areas.

The interests and motivations of the researcher in developing the area of study were identified. The context of rural and remote Australia was presented and the difficulties in defining rural and remote practice was discussed. A discussion of the key influencing contextual factors that make this landscape so unique globally were provided.

The significance of the research was presented, particularly in light of the lack of current research available and the research aim, and questions stated (further discussed in Chapter Three). Finally, this chapter provided an outline of the structure of the thesis to aid reading, including a timeline over which this research study was carried out. The following chapter presents a discussion of the existing body of knowledge and further highlights the significance of this study.

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

This chapter presents existing empirical literature focused on rural and remote nursing. The enquiry focused on the roles and responsibilities of rural and remote nurses and their preparation for such roles. The literature surrounding preparation for roles include undergraduate and postgraduate education, Continuing Professional Development (CPD) and methods of delivering such preparation. The amount of literature is vast and beyond the scope of a systematic review, therefore a traditional literature review approach was undertaken firstly between the years of 2008 and 2018 and then this was subsequently extended to include literature from 1998 to gain a comprehensive picture. This literature review showed a limited number of recent studies and revealed that, in addition to the preparation of rural and remote nurses, a number of influencing factors on this practice was also found and therefore further smaller literature reviews were briefly conducted. These included scope of practice, use of technology and living and working in the community, workforce issues including recruitment and retention, occupational stress, mentorship, preceptorship and clinical supervision, preparation for practice and advanced practice and Nurse Practitioners. As it felt logical to do so, the influencing factors are first presented before the preparation for practice, roles and responsibilities

The databases used for each literature review were, CINAHL, Medline, PsycINFO, PubMed and Google Scholar electronic databases. The key words used for each review are noted at the beginning of the relevant sections.

Finally, the chapter presents a systematic review of the literature published between 2000 and 2018 examining specifically the practice (roles and responsibilities) of registered nurses working in rural and remote Australia. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) is used, justifying the study undertaken.

2.2 Review of literature

2.2.1 Rural and remote nursing

Background about rural and remote nursing roles was presented in Chapter One. The following section will provide a brief literature review around scope of practice, the use of technology and living and working in the community. As previously highlighted in Chapter One there is minimal recent work on these topics and those outlined in sections 2.2.1 – 2.2.6 highlight the significant need for further work in this area.

2.2.1.1 Scope of practice

Key words for the search included (Rural OR Remote OR Isolated OR Outback), (Nurs*), (Practice) (Scope), (extend*), (advance*), (Nurse Practitioner) and Australia*. Scope of practice of Registered Nurses has expanded over time with many nurses now adding extensions to their practice, for example, prescribing and initiating medication, ordering diagnostic tests and referring patients to other health care professionals. These skills are particularly apparent and beneficial to those nurses working in rural and remote areas in which access to resources is sparse (Francis & Mills, 2011). For nurses working in metropolitan or urban areas this increase in scope of practice usually comes as a slow progression in which nurses start their career as beginning nurses and then work up a trajectory to become expert practitioners (Benner, 1984). Throughout this trajectory nurses gain and build on existing knowledge and experiences through their practice, and through professional development opportunities, the latter being a requirement for ongoing registration (Australian Nursing and Midwifery Council [ANMAC], 2009). For nurses working in rural and remote areas, however, this trajectory is not one which is gradual. Indeed, nurses may begin using an extended scope of practice as soon as they enter a facility, which in some cases may be as a new graduate (Hegney et al., 2015; Lea & Cruickshank, 2005). It is in such circumstances that employers have a responsibility to ensure that nurses have appropriate clinical resources, guidelines and policies to work

from, and to ensure that nurses have appropriate access to gain the skills necessary to fulfil their roles (Francis & Mills, 2011). However, in the literature it is noted that support is not always present, resulting in stress for nurses (Fowler, Twigg, Jacob & Nattabi, 2017; Lea & Cruickshank, 2015; Ostini & Bonner, 2012).

Rural and remote nurses are on-call and work after hours more than those nurses in metropolitan and urban areas (Henwood et al., 2009). When medical staff onsite are absent or only available after hours by telephone, nurses need to triage, assess and treat patients with remotely located medical support. The nurse's role in triage is one that has been noted as a concern in the literature for both nurses themselves as well as medical staff, predominantly GP's (who are usually the on-call medics). Medico-legal concerns regarding who holds the duty of care and who is responsible for patients in the rural setting has been noted in the literature (Zeitz, Malone, Arbon & Fleming, 2006). This is particularly important in light of previous literature indicating that nurses are working over their scope of practice (Hegney et al., 2015; Lea & Cruickshank, 2005).

2.2.1.2 Use of technology

Key words for the search included (Rural OR Remote OR Isolated OR Outback), (Nurs*), (Practice), (Tele*), (Electronic health), (Technology), (Information Technology), (Access*) and Australia*.

Telehealth (also referred to as telemedicine, e-health and telenursing) has become a prominent feature of rural and remote nursing practice as a means of providing better access to specialist services. Literature from less than ten years ago was far less positive regarding the use of telehealth than the current literature, indicating that the uptake and effectiveness of such services has improved as the technology has been refined. Previous barriers to implementation cited by Moffatt and Eley (2011) included time, lack of financial incentives for doctors to use telehealth, low Information Technology skills and confidence

amongst doctors, poor internet connections and a preference for traditional approaches to care.

More recent literature, however, has highlighted many benefits to both health care services and individuals. In addition to increased access to healthcare services, telehealth has enabled quicker recognition and management of changes to patient's conditions and has allowed more frequent follow up and self-management of patients in their own homes (Banbury, Roots & Nancarrow, 2014). Particular benefits have been noted in clinical psychology (Simpson & Reid, 2014), paediatrics (Rowell, Pincus, White & Smith, 2014), mental health (Saurman et al., 2011) and oncology (Sabesan et al., 2018; Sabesan & Kelly, 2014).

The number of patients travelling to metropolitan services was seen to decrease once nurse telehealth was established (Rowell et al., 2014; Saurman et al., 2011). This is a particularly important outcome for those Indigenous patients who fear leaving their homelands and who face considerable cultural barriers when entering a city facility (Banbury et al., 2014). It has been suggested that nurses working in rural and remote areas do not possess specialist skills seen in metropolitan hospitals and two particular areas within the literature that are commonly discussed are mental health and oncology. Saurman et al. (2011) noted difficulties that rural and remote nurses have in assessing and managing mental health emergency presentations, particularly in those very remote locations where professionals are particularly isolated. Nurses using telehealth for emergency presentations reported feeling more confident in managing such patients with referrals to inpatient units decreasing from 73% to 52% over a one-year period. Other positive impacts have been shown in nurses who are delivering chemotherapy. Patients have traditionally had to travel to larger centres to receive chemotherapy due to nurses in rural and remote areas lacking the skills to undertake this role. Sabesan et al. (2018)

reported how rural nurses, following training, were able to deliver chemotherapy under the supervision of speciality nurses in larger facilities via telehealth.

Each of these changes to nurses' practice can be seen to bring considerable benefits to patients in their care. However, it is not known whether the increase in a nurses' workload is an influencing factor in the organisation's allocation of resources. Many doctors receive financial incentives for carrying out telehealth consultations, yet benefits to nurses aside from upskilling are not known. The importance of nurses not undertaking these roles, unless sufficient training is undertaken, has been highlighted (Sevean, Dampier, Spadoni, Strickland & Pilatzke, 2008). Little, however, has been formally measured.

2.2.1.3 Living and working in the community

Key words for the search included (Rural OR Remote OR Isolated OR Outback), (Nurs*), (Practice), (Community), (Cultur*), (Boundaries), (Privacy) and Australia*.

Previous research showed that one unique characteristic of rural and remote nursing is that nurses more often than not live in the community in which they work (Lea & Cruickshank, 2005; Hegney, McCarthy, Rogers-Clark & Gorman, 2002). Living within the community makes nurses more visible outside of work hours and conflict has been reported between being 'off duty' and being approached by community members to discuss health issues. Nurses' also have difficulty maintaining their own privacy (Lea & Cruickshank, 2005). Nurses have many family and friends within the community, and they may be required to treat or care for a friend, which may challenge their emotional engagement with the patient (Cecil & Glass, 2015). Nurses have also noted issues for patients living in small communities. There is a need for nurses to be extra vigilant in maintaining the privacy of patients who may be accessing services (Leung, Smith, Atherton & McLaughlin, 2016).

Many positive aspects are however reported by nurses, such as enjoying being part of a community and influencing health care they have an vested interest in (Mills et al., 2007b; LeSergent & Haney, 2005). Suffice to say, the generalist nature of rural and remote nursing alongside the geographical context of the landscape discussed in Chapter One is not for everyone (Mills et al, 2007a). This, coupled with a variety of other stressors, has compounded national recruitment and retention issues in the nursing workforce (Henwood et al., 2009).

2.2.2 Workforce

Key words for the search included (Rural OR Remote OR Isolated OR Outback), (Nurs*), (Practice), (Recruit* OR Retention), (Vacan*), (Staffing), (Workforce), (Attrition), (Turnover) and Australia*.

Predicted shortage of nurses in Australia (Buykx, Humphreys, Wakerman & Pashen, 2010; Mills et al., 2007) as well as internationally (Lartey, Cummings & Profetto-McGrath, 2014; Buykx et al., 2010) is well documented. This shortage of nurses has numerous contributory factors including; baby boomers retiring, population increases, an aging population, increased chronic co-morbidities, a perception that rural and remote nursing is not a good career pathway, and retention issues caused by stressors on the nursing workforce living and working in rural and remote areas. A longitudinal study carried out by Eley et al., (2014) provided a significant insight into the nursing workforce and nursing workplace at four distinct intervals over a ten-year period. They noted the decrease in nurses aged 20-49 years and an increase in those aged from 50 to >65 years, suggesting a large predicted attrition rate as the older nurses begin to retire.

The study by Eley et al. (2014) did not extrapolate data based on the geographical locations of nurses, however, some researchers have discussed nursing workforce demographics and characteristics across different areas. As with the literature surrounding rural and remote nursing generally, a variety of definitions are used by researchers when

selecting participants. A study by Lenthall et al. (2011) explored the workforce in very remote Australia also highlighting an aging nursing workforce with the mean age of employees being 44 years (43 years nationally) with 40.2% aged 50 and over (33% nationally).

Other key characteristics differ between geographical areas. A study by Henwood et al., (2009) examined three groups - those nurses working in major cities (MC), those in inner regional (IR) or those in outer regional, rural and remote (ORR) areas of QLD. Data was further broken down depending on whether they were employed within the public, private or aged care sector. Those nurses working in ORR areas routinely worked more than 37 hours per week, which is more than others in regional or metropolitan centres (Lenthal et al, 2011; Henwood et al., 2009). Nurses also have significant on-call responsibilities with Henwood et al. (2009) reporting that ORR nurses reported being on-call up to six times over a four-week period. Some of this work was undertaken by sole practitioners (Lenthall et al., 2011).

2.2.2.1 Recruitment and retention

In addressing low numbers of nurses nationally, strategies have tended to focus on recruitment rather than retention (Buykx et al., 2010). One recruitment strategy that has been used within Australia and internationally is using overseas-trained nurses to fill the gap. A study by Francis, Chapman, Doolan, Sellick and Barnett (2008) explored recruiting nurses internationally and the retention strategies implemented by three rural hospitals in Victoria. Whilst there were some benefits to recruiting overseas nurses, there were also many challenges. The study identified cultural and organisational challenges, particularly in regard to learning new skills appropriate for rural and remote nursing, as well as learning new ways of working, and new cultural norms within the population they serviced. Additional costs to organisations included additional orientation requirements and extended settling in periods, sometimes over a two-year period.

Nurse turnover is reported as a significant issue in rural and remote areas. There are financial implications in recruiting and training replacement nurses, as well as loss of experience, low staff morale, and a negative impact on patient care and satisfaction (Bragg & Bonner, 2015; Lartey et al., 2014; Buykx et al., 2010; O'Brien-Pallas, Duffield & Hayes, 2006). A study by Bragg and Bonner (2015) explored why nurses were resigning from their positions in rural facilities in NSW. The study highlighted that no nurse within their sample underwent an exit interview before leaving their workplace. Exit interviews are opportunities for organisations to reflect on potential workforce issues and address these as necessary (Buykx et al., 2010). Had managers discussed with nurses their intent to leave, many said that they may have been inclined to withdraw their resignation, thus workforce turnover could have been proactively reduced. Other studies found that a lack of professional development opportunities, lack of support, high workloads, minimal infrastructure, social factors such as isolation and the community itself were key issues that caused nurses to leave (Barrett, Terry Lê & Hoang, 2016; Francis et al., 2016; Hegney et al., 2015; Fitzgerald & Townsend, 2012; Buykx et al., 2010; Lea & Cruickshank, 2005).

2.2.3 Occupational stress

Key words for the search included (Rural OR Remote OR Isolated OR Outback), (Nurs*), (Practice), (Stress), (Wellness), (Burnout), (Health) and Australia*.

Occupational stress on a nurse's decision to leave an organisation is worth exploring. Two terms are used when discussing stress; occupational stress and burnout. Occupational stress if not addressed early leads to burnout, a condition of emotional exhaustion in which people feel increasingly tired, disillusioned, ineffective in their work and depersonalisation begins (Singh, Cross & Jackson, 2015; Schaufeli, Leiter & Maslach, 2009; Maslach, Schaufeli & Leiter, 2001).

Whilst there is considerable literature highlighting stress experienced by nurses, this has not been so well researched in rural and remote nurses. Attempts have been made to

draw comparisons with levels of stress experienced between rural and metropolitan area nurses however findings about which areas experience the most stress are not conclusive. Many studies highlight high stress levels in both areas with no greater significance in one area over another (Hegney et al., 2015; Singh et al., 2015; Opie et al., 2011). Whilst others, have concluded that nurses working in metropolitan areas report higher stress levels and lower job satisfaction than those working in rural and remote areas (Singh et al., 2015; Opie et al., 2011). In contrast, a study by Henwood et al. (2009) reported 82% of outer regional, rural and remote nurses reported high stress levels as compared to 68.3% of metropolitan nurses.

Research into stress experienced by remote area nurses in Australia is dominated by the work of Opie, Dollard, Lenthall, Wakerman, Dunn, Knight and Macleod. Their focus, however, has not been inclusive of rural nurses. Much of their work has been as a result of the collaborative project *'Back from the edge: reducing occupational stress amongst RANs in the Northern Territory'*. The study aimed to describe stressors that remote area nurses experience, measure their levels, and develop, implement and evaluate a number of interventions to attempt to reduce stress levels (Lenthall et al., 2018).

Stressors affecting rural and remote nurses can be broken into job demands and job resources (Opie et al., 2010a). Job demands can be described as those aspects of a job that require a continual and persistent effort by employees, either physical, mental or both and which could lead to physical or emotional exhaustion (Opie et al., 2010a; Demerouti, Bakker, Nachreiner & Schaufeli, 2001). Such job demands include; isolation, bullying, personal safety, increased or multiple responsibilities and poor infrastructure. In contrast, job resources are those aspects that may be a source of motivation (or not) for an individual in achieving their work goals either as a personal or professional development opportunity (Lenthall et al., 2018; Opie et al., 2010a).

Examples of issues that negatively impact on nurses' stress include systemic issues such as difficulties taking their entitled leave due to large workloads (Henwood et al., 2009; Lea & Cruickshank, 2007; Hegney et al., 2002). Limited opportunities for professional development and ongoing education are common either because of access to such activities, or the inability to be relieved from duty to attend them (Francis & Mills, 2011; Opie et al., 2010a; Henwood et al., 2009; Lenthall et al., 2009; Lea & Cruickshank, 2005).

A comprehensive review of the literature carried out by the researchers for the 'back from the edge' project identified four themes with which to categorise occupational stressors (Lenthall et al., 2009). The first theme was isolation and personal and professional boundaries (context). Nurses experienced isolation both geographically but also socially through difficulties in maintaining relationships with others through family dislocation, separation and social isolation (Lenthall et al., 2009; Eley & Baker, 2007; Neill & Taylor, 2002). In addition, working and living in small communities make it difficult for nurses to maintain their own private life. The second theme workload and scope of practice; noted stress and vulnerability felt by nurses due to the advanced role that they undertake. Lack of professional support from doctors and other health care professionals, alongside on-call hours undertaken as part of the role, added considerable stress. The third theme was poor operational management, and this appeared to be a major factor in retaining staff. Many nurses felt unsupported by managers with poor communication between managers and nurses delivering care. Respondents felt that structured education was required to prepare managers for their roles. The final theme was workplace and community violence with nurses experiencing high levels of aggression and abuse.

Whilst the amount of research into rural and remote nurse's stress and burnout is scant, there is research that has focused on other professionals working in these geographical areas. An earlier study by Green and Lonne (2005) explored occupational stress of social workers and other welfare workers. Work has also been undertaken looking at the specific

roles of the mental health nurse working in rural and remote areas (Singh et al., 2015; Pinikahana & Happell, 2004). Both of these studies have drawn similar conclusions to the work of Lenthall et al. (2009).

2.2.4 Mentorship, Preceptorship and Clinical supervision

Key words for the search included (Rural OR Remote OR Isolated OR Outback), (Nurs*), (Practice), (Mentor* OR Preceptor*), (Supervis*), (De-brief), (Support), (Orientation), (Induction) and Australia*.

Nursing literature highlights three areas of support for nurses, particularly during transition to practice whether as a new graduate nurse or in moving to a new area. These three forms of support are mentorship, preceptorship and clinical supervision (Cummins, 2009). Mills, Francis & Bonner (2005) suggest that each of these three areas have a role in developing a stronger, more sustainable workforce, improving retention of staff through a more supportive work environment.

2.2.4.1 Preceptorship

Preceptorship is commonly associated with guidance offered by Registered Nurses to undergraduate nursing students or new staff. Preceptorship focuses on skill acquisition and orientation to the environment (Mills, Francis & Bonner, 2007b). It is a short-term support mechanism and preceptors carry out roles in conjunction with their existing clinical responsibilities (Mills et al., 2005).

The work of Mills et al. (2007a) discussed support offered to nurses as a trajectory with preceptorship being undertaken at the beginning of a nurse's arrival at a facility. The need for appropriate orientation or induction programmes for nurses commencing employment at a rural and remote facility has been discussed by researchers for over two decades (Hegney, Pearson & McCarthy, 1997; Dowd & Johnson, 1995). Yet orientation programmes continue to be researched, resulting in more recommendations for preparing

and retaining staff for rural and remote nursing (Francis & Mills, 2011; Henwood et al., 2009). Mills et al. (2010b) claimed orientation should ensure nurses were clear as to their scope of practice and limitations of their practice within the employing organisations clinical governance arrangements.

One particular group of nurses that have been highlighted in the literature as in particular need of support on entry to the workplace is that of new graduates (Lea & Cruickshank, 2017, 2005). Whilst the needs of new graduate nurses are not unique to rural and remote nursing, the unique nature of nursing in these areas, such as a lack of available support from other health care professionals alongside advanced and generalised types of roles, make new graduates vulnerable to transitional stress (Fowler et al., 2017; Lea & Cruickshank, 2015; Ostini & Bonner, 2012). Sedgwick and Yonge (2008) wrote that there is an expectation that graduate nurses 'hit the ground running'. When new graduates are not able to perform to the unrealistically high standard, they may experience marginalisation and overt and covert criticism. As such, as part of the support through preceptorship and mentorship, nurse managers need to ensure an awareness of beginning competence of these nurses (Lea & Cruickshank, 2017).

Despite the advantages offered to nurses in undertaking a transition to practice graduate programme, few of these exist outside of metropolitan areas (Francis & Mills, 2011). Subsequently the number of new graduates attracted to work in rural and remote areas are significantly lower than metropolitan areas. Where graduate programmes do exist and have been evaluated, the experiences promised as part of the programme often do not occur, resulting in new graduates leaving rural and remote nursing altogether to take up posts in larger cities (Lea & Cruickshank, 2005).

2.2.4.2 Mentorship

Whilst preceptorship focuses on issues within work and the professional lives of nurses, mentorship offers support more widely in both their professional work and other parts of

their personal life (Mills et al., 2005). Mentorship has been discussed widely in nursing literature, however in relation to rural nursing there is a lack of discussion. This is despite the National Rural Health Alliance in 2002 stating that mentorship would be a high priority in addressing retention issues facing rural nursing. Mentorship has been discussed as a method of support for nurses in decreasing stress and contributing to retaining them in the workforce. Two types of mentoring exist; accidental mentoring (Mills et al. 2007) and continuing mentorship.

The phrase 'accidental mentoring' was coined by Mills et al in 2007a. Accidental mentoring happens as a result of a critical incident or a challenge by which two nurses are brought together. In such circumstances, experienced nurses provide support and guidance (mentorship) to novice nurses in an unplanned way. Experienced nurses do not plan on being mentors, it simply happens due to the circumstances presented. This relationship may last a short time to work through the critical incident, or if bonds develop then the relationship may progress to become a more continuous form of mentoring.

Work by Mills, Francis and Bonner (2005, 2007a, 2007b, 2008a, 2008b,), has contributed significant knowledge to the importance of mentoring and describing the experiences of mentors. Continuing mentorship was noted as being particularly important in supporting rural and remote nurses through a study in which the experiences of mentors was explored (Mills et al., 2007b). In the study by Mills et al. mentors noted living and working in the same community meant that separation of the two was often difficult and a significant contributing factor to nurses leaving rural and remote nursing due to conflicts arising (Mills et al., 2007a). This was termed 'live my work' and showed the need for experienced nurses acting as mentors to support novice or new nurses (Mills et al., 2007b). This can be seen as a totally different contextual stressor to what an urban or metropolitan nurse might experience both within Australia and internationally. Mentors also offers support and

guidance to their mentees including advice on career progression and offering opportunities for career advancement.

Mentorship can be formerly developed through the inclusion of structured outcomes and formal agreements. It requires a strong foundation between two people, a mutual trust and understanding and a bond to be developed. Thus, these relationships may take a substantial amount of time to develop. As such, whilst the literature discusses the benefits of mentoring and retention it may not be the quick fix solution to recruitment and retention problems that has been suggested (Mills et al., 2008b, Firtko, Stewart & Knox, 2005).

2.2.4.3 Clinical supervision

Within Australia and the United States of America, the term clinical supervision has generally been used to describe supervision of undergraduate nurses in clinical practice (Bondas, 2010; Jones, 2006). However, outside of Australia, and in particular the UK, clinical supervision means something different, offering another supportive mechanism for nurses. Clinical supervision offers nurses the chance to meet as a group (or less commonly individually) and reflect on practice, develop their practice, explore professional roles and offer advice to one another (Kenny & Allenby, 2013; White & Roche, 2006). Within Australia this is undertaken by mental health nurses and midwives but has not progressed to become a policy initiative for all registered nurses as in the UK, where it is considered an essential component of clinical governance and care quality (Care Quality Commission, 2013; Royal College of Nursing, 2003). Thus, literature in relation to clinical supervision is scarce outside of mental health nursing in Australia and in particular in the rural and remote context.

Kenny and Allenby (2013) highlighted that those participating in clinical supervision (the participants) did not understand its purpose or process. Kenny and Allenby (2013) also noted that participants did not understand critical reflection, with the level of education

making no difference to this view. Participants reported that attendance at clinical supervision sessions would often not be possible due to a shortage of staff.

The selection of a preceptor, mentor or facilitator should consider a number of attributes. Firstly, having knowledge regarding the unique context of the nurse's work. This was evident in Kenny and Allenby's (2013) study in which facilitators for clinical supervision were chosen due to their experience in facilitating groups rather than experience in rural and remote areas. Unfortunately, the support was limited as these supervisors were unable to understand the context in which the participants were working which left many issues unresolved. Secondly, mentors also need a contextual understanding of their mentees but unlike preceptors the mentor may come from outside of the mentees employing organisation. As such, the third attribute is that the use of managers as facilitators or mentors is not recommended within the literature due to the potential to influence what is spoken about (Butterworth, Bell, Jackson & Pajnkihar, 2008). Finally, for a successful mentor-mentee relationship to develop, the mentor needs to have similar values and cultural background (Mills et al., 2008b). This demonstrates that the selection of mentors for rural and remote nurses may be limited in this regard.

2.2.5 Preparation for practice and professional development

Key words for the search included (Rural OR Remote OR Isolated OR Outback), (Nurs*), (Practice), (Undergraduate OR postgraduate), Prepar*), (CPD), (Professional development), (Incentive), (Educat*), (Train*), (Develop), (Mandatory) and Australia*.

A number of core areas have been identified as essential components in preparing rural and remote area nurses and these include; a sense of belonging, interpersonal skills, management abilities, knowledge of ethical and legal concepts, advanced clinical practice, education, research and knowledge of social networks as well as clinical resources for supporting the patient and community. Such a broad range of areas is reflective of the

previously discussed generalist role of rural and remote nurses (Henwood et al., 2009; Lenthall et al., 2009; Mills et al., 2007).

The communities in which rural and remote nurses' work bring their own challenges which must be taken into account when considering any preparatory programmes. This is particularly important in rural and remote health given that 70% of remote area nurses across Australia work in Indigenous communities which present their own social, cultural and economic challenges (Hussain et al., 2015; Dade-Smith, O'Dea, McDermott, Schmidt & O'Connors, 2006; CRANA, 2003). Working in such a cross-cultural environment generates many additional demands including language, social norms and gender roles, disparity in religious and spiritual practices and contested values and beliefs related to health and illness (Quinn, Massey & Speare, 2015; Congress of Aboriginal and Torres Strait Islander Nurses, 2013). To address the influence of social determinants of health, a primary health care approach encompassing all people, belief systems and life circumstances should be implemented (Francis & Chapman, 2008). Focus within preparatory undergraduate curricula tends to be hospital-based clinical practicums. However, if the tenets of primary health care are indeed to form the basis of rural and remote health then there needs to be a comprehensive shift within education curricula.

Lack of access to greater professional support (Saurman, Kirby & Lyle, 2015; Lenthall et al., 2009) and the need for nurses to work at an advanced level (Francis & Mills, 2011; Lenthall et al., 2011; Lenthall et al., 2009; Mills et al., 2007a), suggests that preparation for rural and remote practice should be through specific postgraduate education (Lenthall et al., 2009; Kenny & Duckett, 2003). Few rural nurses, however, possess postgraduate qualifications and also face significant barriers in obtaining them (Francis & Mills, 2011). It was through persistent advocacy by the Council of Remote Area Nurses of Australia (CRANA) that the Australian government agreed to fund postgraduate education for remote health care professionals. Due to the multidisciplinary nature of remote practice,

collaborations were formed between CRANA, the Australian College of Rural and Remote Medicine and Service for Australian Rural and Remote Allied Health to write a curriculum that later became the Remote Health Practice program consisting of Graduate Certificate, Graduate Diploma and Master of Remote Health Practice awards.

Lenthall et al. (2009) presented a case study that described the development of the program and some lessons learnt. The key message from this case study was that further education for these nurses needed to be specific to rural and remote contexts of practice. This may mean that postgraduate curricula are written with a higher level of input from rural and remote practitioners under the guidance of academics (Fairchild et al., 2013; McCoy, 2009). In Lenthall's case study, this approach led to the course being much more highly regarded (Lenthall et al., 2009). Despite postgraduate courses being available, few nurses have specific remote qualifications for their role (Lenthall et al., 2011).

Other areas in which postgraduate qualifications are decreasing are in those nurses who are dual qualified as a RN and registered midwife (65% in 1995 decreasing to 29% in 2008) and those obtaining child health qualifications (Lenthall et al., 2011). It is suspected that this is due to the availability of direct entry into midwifery programmes which have reduced the need to obtain RN registration first.

It has been reported that rural and remote nurses have more access to professional development funding and employer support (Henwood et al., 2009). This availability in funding is the result of an incentive scheme for rural and remote nurses that has been offered as an attempt to improve recruitment and retention of staff. However, nurses report being unable to access professional development opportunities routinely, due to the distances required to travel to access training and an inability to leave their facilities due to difficulties in finding staff to replace them (Fitzgerald & Townsend, 2012; Place, MacLeod, John, Adamack & Lindsey, 2012; Francis & Mills, 2011; Henwood et al., 2009; Jukkala, Henly & Lindeke, 2008). This is not only a cause of great stress to nurses, but it

also raises concerns over how nurses are meeting their currency of practice. The requirements of the regulatory body necessitate 20 hours of continuing practice development each year and an additional 10 hours for each speciality area, such as for Nurse Practitioner endorsement (NMBA, 2016; Francis & Mills, 2011; Lenthall et al., 2009; Mills et al., 2008).

Rural and remote organisations may find it difficult to offer professional development programmes due to a lack of experts available to deliver education onsite (Fitzgerald & Townsend, 2012). Indeed, Clinical Nurse Educators (CNE) in Australia usually have a role that is widespread, covering a number of rural and remote facilities whilst being based in a central hub. As such, alternate ways of delivering professional development are required. There are a variety of ways in which professional development can be offered to ensure currency of practice. Traditional face to face courses are no longer the only way to educate nurses, with more online, blended and videoconferencing modalities being introduced (Stott & Mozer, 2016; Robinia & Anderson, 2010). These modalities offer nurses opportunities to complete professional development activities without cost and travel implications when training is located at a major city. These offerings do, however, assume the learner has a level of computer literacy, competence to navigate systems and retrieve information and good internet access. A study by Mills, Francis, McLeod and Al-Motlaq (2015) examined the impact that an online continuing professional development programme had on rural nurses continuing to utilise information technologies in their workplace. Nurses reported benefits, including increased confidence in using online systems. This is beneficial in light of the changes to health care delivery in Australia, including use of telehealth in rural and remote areas.

As a medium of educational delivery, it has been questioned whether nurses want to receive their education via an online medium. Riley and Schmidt (2016) in their study of rural nurses in NSW concluded that nurses' engagement with online learning was

restricted to completion of mandatory training with them not actively choosing to use the internet for anything else. From the organisational perspective, cost savings utilising online learning platforms were beneficial. However, individuals commented that they needed to access computers away from their ward or department and required protected time to complete online learning. Whilst this study had a very small convenience sample size its results echo previous findings with authors stating that the experience is an isolating one, the online medium only supports self-disciplined learners and that nurses want some sort of measurement of their abilities following completion (Riley & Schmidt, 2016).

2.2.6 Advanced practice and the role of Nurse Practitioners

Key words for the search included (Rural OR Remote OR Isolated OR Outback), (Nurs*), (Practice) (Scope), (extend*), (advance*), (Nurse Practitioner), (Regulat*), (Legislat*) and Australia*.

In many countries the terms ‘nurse practitioner’, ‘advanced nursing practice’, advanced level practice’ and ‘advanced practice nurse’ are used interchangeably (Dowling, Beauchesne, Farrelly & Murphy, 2013; Duffield, Gardner, Chang, Fry & Stasa, 2011; Cox, 2010; International Council of Nurses, 2010). In Australia whilst terminology used by the regulatory body regarding practice levels is clear; there still exists confusion at an organisational level when delineating roles that sit within the domain of advanced practice nursing (aside from the role of the nurse practitioner).

Within advanced *nursing* practice (ANP) nurses work within their scope of practice as delineated by the NMBA, albeit at a more ‘advanced’ level than new graduate nurses would perform. ANP does remain poorly understood within Australia with roles being inadequately defined and supported. Duffield et al. (2011) suggest that there has been an ad-hoc approach to developing new advanced practice nursing roles across Australia which has led to a blurring of the roles and responsibilities. In comparison, advanced

practice nursing and nurse practitioners have been introduced within the United Kingdom where no regulation or legislation exist for such roles (Kleinpell et al., 2014).

With the changes to health care delivery both within Australia and internationally, an increase in the scope of practice of registered nurses and the formation of advanced practice roles is advocated (O'Connell, Gardner & Coyer, 2014; Roche et al., 2013; Francis & Mills, 2011; Jokiniemi, Pietilä, Kylmä & Haatainen, 2010; Duffield, Gardner, Chang & Catling-Paull, 2009). Indeed, there is a wealth of literature that aims to delineate the profile of advanced nursing practice (Gardner, Chang, Duffield & Doubrovsky, 2013; Roche et al., 2013; Cant, Birks, Porter, Jacob & Cooper, 2011). The focus however has been the introduction of advanced roles that complement an existing team of professionals including a range of nursing positions with varying degrees of experience, medical staff and allied health professionals. In considering the rural and remote environment it is not necessarily the creation of advanced practice roles within a progressive career structure that is the issue but rather the necessity for many Registered Nurses to take on advanced roles in that environment. In the absence of medical staff, rural and remote nurses are making decisions and managing patients by undertaking advanced and extended practice roles including; radiography, prescribing, advanced assessment and management of trauma and emergencies (Francis & Mills, 2011) in order that the health care needs of the community are met.

These roles do need to be within the nurses' scope of practice, and they need to be adequately prepared to undertake such advanced roles. Indeed, nurses working within rural and remote areas do not automatically assume the title or role of an advanced practice nurse simply because of where they work. Instead, advanced practice nurses working in these settings display a specific skill set including strong advocacy for their communities, mentorship, interdisciplinary collaboration, they critically analyse, reflect and problem solve and apply high levels of knowledge and care that is culturally and

contextually appropriate (Turner et al., 2007; National Rural Health Alliance Inc., 2005). It is apparent that more research needs to be undertaken about scope of practice, specific to the context of rural and remote nursing.

One example of rural nurses working at an advanced level in QLD is those nurses who have successfully completed The Rural and Isolated Practice Nursing Endorsement (RIPRN) to work under the *Health (Drugs & Poisons) Regulation 1996* (Timmings, 2006). This endorsement will be removed, and undergraduate curricula adapted to include prescribing to protocol.

In states such as QLD and Victoria where regulations exist to allow nurses to supply and administer medications in rural and remote areas, minimal difference is expected, however, in those States/Territories in which such legislation does not exist there could be a problematic transition period. This is a concern for rural and remote communities who do not have a medical officer or nurse practitioner readily available. In addition, determining how nurses gain and maintain competency becomes an individual establishment obligation. This goes against the body of research that is trying to standardise advanced roles and nomenclature.

Many rural and remote nurses are working in single nurse primary health care clinics. Whilst these single nurse clinics are not supported by the Australian Nursing Federation and CRANA, and are being phased out in some States and Territories, there still remain nurses working at high numbers in such positions, primarily for QLD Health and Aboriginal Community Controlled Health Organisations, where similar policies to phase out their use are yet to be implemented (Lenthall et al., 2011).

Prior to registration standards for endorsement as a Nurse Practitioner, many nurses working in rural and remote areas using advanced skills believed that they were undertaking the role of Nurse Practitioners despite not having legislative or professional

sanctions to do so (Department of Human Services South Australia, 1999). The development of the Nurse Practitioner role in the late 1990's came as a direct result of the need for a new model of care in rural and remote areas (Mills, Lindsay & Gardner, 2011). The role was expected to offer improved access and timeliness of care, particularly to Indigenous communities, through nurses able to diagnose, treat, administer medications and refer to other professionals (Francis et al., 2014; Harvey, 2011; Arbon et al., 2008; Nazareth, Piercey, Tibbet & Cheng, 2008).

Advanced practice nursing as a "Nurse Practitioner is a qualitatively different level of advanced nursing practice to that of Registered Nurses" (discussed above) (NMBA, 2014, p.5). This role requires additional legislative functions and regulatory requirements. Requirements include a prescribed educational level, a specified advanced nursing practice experience; and continuing professional development" (NMBA, 2014, p.5). The NMBA supports the view that nurses practicing at this level are educationally prepared to master's level. This is similar globally, with Nurse Practitioners in Canada gaining endorsement via completion of a postgraduate degree and in America through master's level or the Doctor of Nursing Practice (DNP) (Zaccagnini & Waud White, 2011; Chism, 2010). Whilst the title of Nurse Practitioner in these countries is protected, in the UK there remains no regulation or legislation surrounding the role of Nurse Practitioners with varying levels of educational preparation (O'Connell et al., 2014).

The Nurse Practitioner in Australia was first established in NSW in 2001. Original legislation in Australia permitting NP roles was limited to nurses working in rural and remote areas. Studies, however, raised concerns that attainment of this status within the rural workforce was limited with a high proportion of nurses not holding an undergraduate nursing degree (Kenny & Duckett, 2003). These concerns were unfounded, however, with States such as NSW being at the forefront in providing alternative routes to NP status through demonstration of 'expert knowledge' rather than a master's degree. Despite these

initiatives and as a result of the relative isolation of their work, the actual numbers of rural NPs remain very small compared to the number of rural nurses (Mills et al, 2010). Instead, it is the metropolitan acute and specialist settings that have taken up the NP positions (Harvey et al., 2011). A national survey carried out in 2009 (Middleton, Gardner, Gardner & Della, 2011) revealed that just one third (35.7%) of Nurse Practitioners who responded to their survey were working in non-metropolitan areas. These numbers demonstrate the uptake in metropolitan areas but still do not indicate how many are working in rural and remote practice, as other areas such as inner and outer regional are also included in these numbers. There are a number of reasons that have been noted for these low numbers. These include, geography, a lack of academic qualifications, a disinterest amongst rural nurses in fulfilling a NP role, role confusion, curricula that are not appropriate for the rural and remote nurse or the lack of access to the Medical Benefits Scheme (MBS) and the Pharmaceutical Benefits Scheme (PBS) (Gardner, Gardner, Middleton, Della & Doubrovsky, 2010).

The location of Nurse Practitioners (NP) within rural and remote health care appears particularly relevant, given that nurses working in these small communities are already required and in possession of a broad range of knowledge and skills. These nurses are 'multi-skilled' and often undertake a variety of medical and allied health professional roles (Henwood et al., 2009; Lenthall et al., 2009; Mills et al., 2007). Nurses with master's level preparation and advanced clinical experience are attractive to rural health care settings in light of major medical recruitment difficulties resulting in gaps in medical treatment (Kelly, Garvey, Biro & Lee, 2017; Poghosyan, Lucero, Rauch & Berkowitz, 2012; Ryan & Rahman, 2012).

Research has been undertaken in the arena of rural nursing practice, demonstrating that a major barrier to Nurse Practitioner endorsement is that many nurses already consider themselves to be undertaking the same responsibilities as those outlined in Nurse

Practitioner job descriptions, but without the non-clinical managerial duties that Nurse Practitioners are often responsible for (Keating, Thompson & Lee, 2010).

A study by Ling, Curtis, Brighton and Dunlop (2012) explored reasons why senior (Clinical Nurse Consultant and Clinical Nurse Educator) alcohol and other drug (ATOD) nurses were not pursuing a career path to endorsement as Nurse Practitioners. The researchers (Ling et al., 2012) reported that despite 70.6% (n=17) of participants expressing an interest in becoming a Nurse Practitioner only 11.6% (n=2) would consider undertaking a recognised Nurse Practitioner master's degree and that 29.4% (n=5) would have considered following a clinical pathway to endorsement; however Australian Health Practitioner Regulation Agency (AHPRA) has since removed this pathway to endorsement. Ling et al.'s. (2012) research concluded that many nurses are not prepared to return to university to achieve Nurse Practitioner endorsement and would prefer to follow a clinical pathway should there be one available. The reader is cautioned by the researcher of this PhD study about this conclusion, as the limited sample size and only recruiting nurses working within ATOD in rural settings means these results are not generalisable for all rural and remote nurses.

2.3 Systematic review – PRISMA

Whilst a general view about the roles of nurses was gleaned from the literature, details of the work nurses undertake on a daily basis was absent from that body of knowledge. It is important to understand the current roles and responsibilities of nurses on which to base policies to guide such practice. Therefore, in preparation for the current study, the researcher undertook a systematic review of literature that explained the daily practice of RNs working in rural and remote locations in Australia. The systematic review provides a systematic approach to identifying the literature that can be replicated by others. The

PRISMA (Preferred Reporting Items for Systematic reviews and Meta Analyses) framework (Liberati et al., 2009) was used to undertake the review to gain an unbiased review on which to make decisions regarding this case study.

2.3.1 Methods

A search of the literature was undertaken using CINAHL, Medline, PsycINFO, PubMed and Google Scholar electronic databases. Three limitations (Liberati et al., 2009) (inclusion and exclusion criteria) were applied to the search; articles had to be in English, peer-reviewed and published between 2000 and 2018. This date range was extended beyond the last ten years due to a lack of articles meeting the criteria. Key words for the search included (Rural OR Remote OR Isolated OR Outback), (Nurs*), (Practice) and Australia*. By using an asterix at the end of the word it enabled the search to include other possibilities for the terms ending e.g. Nurs* could include Nursing, Nursed, Nurses. The Boolean operators 'AND' and 'OR' were also used. In addition to using the electronic databases, reference lists of the 51 articles selected for full text review were also reviewed to seek any further articles that may have been missed. Records were screened according to the inclusion and exclusion criteria presented in Table 2.1.

Table 2.1 Inclusion and exclusion criteria for systematic review

Inclusion criteria	Exclusion criteria
Australian sample	Global sample.
Registered Nurses	AHPs, NPs and Doctors, for example.
Studies that were qualitative, quantitative, mixed methods, systematic or integrative reviews	Commentaries, editorials, opinion pieces and letters.
Focusing on general roles of RNs	Focusing on certain specialist aspects such as mental health, palliative care, chemotherapy, general practice, child and family health, for example.
Findings reported by Registered Nurses	Findings reported by a second party regarding the practice of Registered Nurses e.g. non-nursing managers and policy makers.

PRISMA was used to provide a more comprehensive illustration of why records were excluded from the process. Thus, the flow diagram that is seen in Figure 2.1 has the additional screening of titles and abstracts prior to the full text screen. Following this process only five articles remained, detailed in Table 2.2.

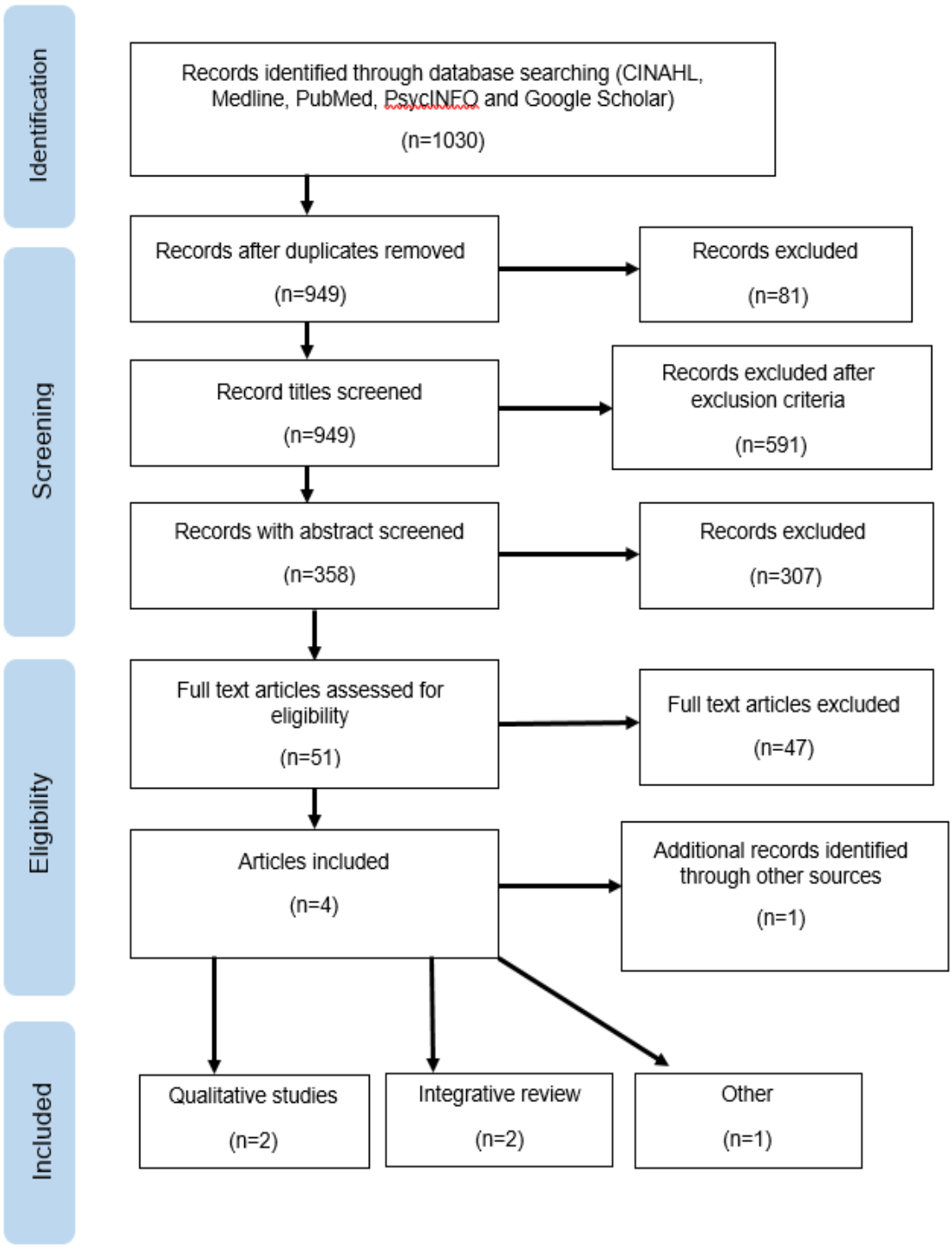


Figure 2.1 Adapted PRISMA flow diagram of literature review

Table 2.2 Systematic review of selected studies on the practice of Registered Nurses working in rural and remote Australia

Study title, author and year. Location of study	Purpose	Research design Methods of data collection	Participants	Findings	Strengths	Limitations
Status of rural nursing in Australia: 12 years on. Mills et al. (2010) Australia wide	To describe roles of rural nurses and factors which affect this workforce. Replicated review from 12 years previous.	Integrative review Electronic databases and grey literature	CINAHL, Ovid MEDLINE, PubMed, ProQuest, Medline Policy documents from: Federal, State and Territory, Australian Bureau of Statistics, Australian Institute of Health and Welfare, National Rural Health Alliance, Australian Rural Nurses and Midwives.	There are a number of influences on the roles of RNs working in rural areas. These include; population numbers, community, culture, social determinants of health, levels of support from other members of the health care team. Information provided on these areas give the reader a good indication of the roles of RNs.	**Design:** Design of review replicated from 2006 review. **Findings:** Clearly delineated the impact that context has on the roles of RNs. Small populations require a more generalist role, working across the lifespan. Whilst the paper does not 'list' roles it provides the best indicators of what nurses do based on influencing factors e.g.	**Design:** The number and details of papers reviewed is not stated **Findings:** Findings need further researching as they were pre-amalgamation of nursing boards and the establishment of one nursing regulatory body and introduction of competencies and standards.

					community, culture, social determinants of health. Domains of practice are proposed. Five domains that are integrated within clinical practice (education, management, leadership, research and consultation).	
Assessing clinical urgency via telephone in rural Australia Knight et al. (2015) Five rural health services in Victoria, Australia	To explore roles of rural RNs implementing telephone triage.	Descriptive, qualitative, multiple-case study Review of documents Telephone interviews with DONs (n=8)	Policy documents from State and Federal government, nursing and medical professional bodies and five rural health services Eight Directors of Nursing (DONs)	Despite there being telephone services for provision of health care advice out of hours, remote communities prefer to contact nurses in their community. Six themes were found: • Information gathering;	**Design:** Multiple data sets were used which increases the validity of the findings. **Findings:** Highlighted the importance of the context of practice on role and the importance of the telephone being the 'connection to the community'.	**Design:** Limitations to the study included: no male RNs participated, data was based on participant description rather than direct observation, researcher bias possible. This study was part of a PhD study and due to an existing interest in this area it could have led to potential bias. However, in addressing this a reflective journal was kept, debriefing carried out, checking of analysis for

		Telephone interviews with RNs (n=7) Focus groups with RNs (n=8)	Eight rural RNs.	• Decision making; • Meeting a need; • End of call but not encounter; • Triaging finite resources and; • Managing clinical practice. A number of contextual demands are present, for example; limited resources, scope of practice issues.	It is the context in which the telephone is used that characterises practice. Thus, findings may be transferrable to face to face encounters with patients as well as via telephone.	accuracy and the use of an interview schedule. **Findings:** A number of contextual demands are present for example limited resources, scope of practice issues. Findings were based on self-reported practice and not practice which was observed.
From expert generalists to ambiguity masters: using ambiguity tolerance theory to redefine the	To redefine the practice of rural nurses and describe a model that conceptualises the capabilities and	Theoretical paper based on study above (Knight et al (2015).	Previous data sourced from: Policy documents from State and Federal	This article proposes an alternative way to view the practice of rural RNs. By moving away from the functional context	**Design:** Multiple data sets were used which increases the validity of the findings.	**Design:** The paper proposed a model and makes several claims as to its use; however, it is yet to be tested within the rural workforce.

practice of rural nurses Knight et al. (2016) Five rural health services in Victoria, Australia	characteristics required of rural RNs.		government, nursing and medical professional bodies and five rural health services Eight DONs Eight rural RNs.	of health care delivery, the authors propose that nurse's practice can be described through the cognitive and affective capabilities and characteristics such as their ability to adapt to challenges of rural health care.	**Findings:** Findings from this study offer a new way of viewing rural nursing practice. The MODIFIED AMBIGUITY TOLERANCE MODEL enables further research to explore capabilities and characteristics required in the rural context beyond that of a specific set of skills within a scope of practice. Results may influence several problem areas identified in the literature: • Recruitment and retention; • CPD; • undergraduate curriculum and; • support	**Findings:** The model is yet to be tested.
Amorphous practice:	To determine how nursing is	Ethnography	Not clearly stated. Three RNs and	Three themes emerged:	**Design:**	**Design:**

Nursing in a remote Indigenous community of Australia Cramer (2006) One Aboriginal community in the Central Desert of Western Australia	shaped and practiced in a remote Indigenous setting.	Historical information Participant observation Informal/formal interviewing Document review Field notes, memos, journal	three AHWs employed at any one time. Staff were relievers or on contracts ranging from one week to eight months. Staff were observed over a one-year period.	detachment, diffusion and beyond the nursing domain. RNs shown to take on the role of the medic followed by the role of the nurse. Boundaries were regularly crossed as they were 'it' and regulated practice was not perceived by participants to relate to remote area nursing.	Data collected over a sustained period. Multiple data sets. **Findings:** Paper highlights the individual nature and choices by the nurse to undertake tasks. Examples are given in areas which are particularly problematic such as the inconsistent use of medication, assuming medical responsibilities, varying approaches to care decisions and the effect of peer influence on practice. The risk taking by nurses is highlighted in the absence of 'anyone watching'. Links are made to poor practice as a result of	Detail of study methods not clearly delineated in the paper. Not known whether the author had previously worked in remote nursing herself and what, if any, were her links to the community researched. Participant data was collected from one area only. Data for RNs was not extrapolated from AHWs thus results are not transferrable to other areas. **Findings:** Study findings were from one community with a very high turnover of staff and short-term relievers or casual contracts. Thus, these findings are limited in how they can be generalised to those RNs that live and work within a community on a permanent basis. The question is raised regarding whether such nurses have different personality traits, beliefs and values when

					inadequate preparation and support. The strength of this paper is in highlighting how the nurse's personality influences their practice.	'visiting' as compared to those permanent nurses?
An integrative review of the role of Registered Nurses in remote and isolated practice Coyle et al. (2010) Australia (QLD, NT, SA and WA)	To examine the role of the remote and isolated practice RN in QLD, NT, SA and WA and the impact of the burden of disease on practice.	Integrative review Electronic databases and grey literature	CINAHL, Ovid MEDLINE, EMBASE, State and Federal policy papers, government reports, project reports and position descriptions.	The burden of disease has an impact on the role of the RN A variety of roles (dependent on the community and facility in which the RN works) and legislation exists across the States/Territories included. This does pose difficulties in transferability of skills across Australia.	**Design:** The review utilised position descriptions from a variety of States/Territories that were available at the time of the review. Research from more than one State/Territory was included. **Findings:** A strength to this paper is the classification offered for remote practice (clinical, admin, health	**Design:** Despite being referred to as an integrative review, the numbers of records screened, inclusion and exclusion criteria were not stated. Not stated why NSW was not included. **Findings:** Two main findings were: difficulties in defining what constitutes 'remote'

					education/promotion and general). There was a variety of different workplaces in which remote and isolated nurses work are presented such as, mining, pastoral, tourist centres, internment camps. Provides comparisons regarding advanced nursing practice, Nurse Practitioners and opportunities across the States/Territory that were reviewed.	burden of disease on nurses' practice. However, the decision trail was not clear regarding which papers they chose to include for this review. Indeed, many papers on their reference list have 'rural' in the title. Findings need further researching as they were pre-amalgamation of nursing boards and the establishment of one nursing regulatory body and introduction of competencies and standards.

2.3.2 Results

Despite a plethora of literature discussing rural and remote nursing there were only five articles that met the inclusion criteria of this systematic review. Two of these papers were integrative reviews, two were qualitative studies and one was a theoretical paper based on one qualitative study reported. When undertaking this systematic review and screening articles against the inclusion and exclusion criteria it became apparent that the literature generally focused on isolated roles such as palliative care, mental health, Nurse Practitioners or chemotherapy nurses, rather than the broader nature of nurses' general roles and responsibilities. Nurses in these studies were employed to undertake these roles as a separate (or specialist) entity and usually held a role that serviced a whole district which was not what this study wanted to focus on.

Likewise, a significant amount of literature (n=93) focused on mental health services, in particular the role of mental health nurses in rural and remote areas. Child and Family Health Nurses (CFHN) (n=13) and Practice Nurses (PN) (n=11) were also an area of focus in the literature. The literature that discussed these specific roles within rural and remote Australia were excluded from the systematic review due to the roles not consistently being available in all rural and remote areas. The systematic review focused on general Registered Nurses and not nurses in a specialised field or with specialised roles such as mental health qualified nurses.

One of the articles selected (Knight, Kenny & Endacott, 2015) was a multiple-case study using qualitative data methods. This study did differ from the other four articles in that it focused on the nurse's roles when undertaking telephone triage. This study was found through the secondary screening of references following reading the Knight, Kenny & Endacott (2016) paper. Whilst, as discussed above, it had been decided to exclude articles that had a narrow focus on one aspect of practice (such as mental health or chemotherapy) it was decided that this article would be included as it provided context for the 2016 article

that had already been selected and also the elements of practice discussed in this role were generalised skills.

2.3.3 Discussion

The five data items selected naturally fell into two groups, thus the following discussion will be separated into those data items discussing rural practice and those discussing remote and isolated practice. Comparisons and similarities will be drawn across all five data items.

2.3.3.1 Rural nursing practice

The integrative review by Mills, Birks and Hegney et al. (2010) provides insight into rural nursing generally, including definitions, stressors and recommendations. One strength of this paper is detail of the wider context. The review by Mills et al. (2010) highlights how rural nursing practice is influenced by the context in which they work. Their practice is affected by the contextual influences such as the social determinants of health, degree of isolation, and population health disparities. These contextual influences on practice are mirrored within the work of Knight et al., (2015, 2016). Knight et al. (2015) discuss how the nurse's integration within the community also affects their role in both advantageous ways as well as having potential difficulties. The knowledge of the community and its members through pre-existing relationships can help nurses in their clinical decision making. Appropriate recommendations for care can be made on the basis of the nurse's knowledge of the community's available resources, through living and working in the same community (Knight et al., 2015). This integration within the community, however, comes with the risk of making incorrect assumptions based on personal knowledge of particular cases.

The nurse's role in rural areas is reported to be more generalist than that within a metropolitan area. Mills et al. (2010) cite the work of Kruske et al (2008) who noted that the role becomes more generalist the more isolated the nurse works. This is due in part to the lack of multidisciplinary health care team members that are available to the nurse

resulting in the nurse having a role in psychological and social support. With multiple demands on them, rural nurses are required to have a broad range of skills and knowledge and are often required to pull on advanced skills (Knight et al., 2015; Mills et al., 2010). Such advanced skills are not discussed within the review by Mills et al. (2010). In contrast, Knight et al. (2015) explain the need for nurses to have advanced skills in listening and eliciting information from patients when they may not be face to face with the nurse. Whilst the study by Knight et al. (2016) focused on the aspect of practice of telephone triage, they proposed that the skills required by the rural nurse during a face to face encounter are no different.

In describing the practice of rural nurses, Mills et al (2010) draw on the work by the National Rural Health Alliance (2005) which categorise rural nurses' clinical practice as incorporating five domains of practice. These are; education, research, consultation, management and leadership. Whilst examples of practice roles and responsibilities within each of these domains are not provided, the classification is helpful in considering areas of practice a nurse may be engaged in.

A major strength to the review by Mills et al. (2010) is direct replication of an earlier study by Hegney in 2006. This is useful in gauging how rural nursing has changed over time. Mills et al. (2010) purport that rural nursing is now situated within a Primary Health Care framework. Whilst, providing an extensive discussion about the importance of context (social determinants of health, education, isolation and access to services) as influencing practice, these are not directly linked to the framework of Primary Health Care. Mills et al. (2010) cite the work of Francis and Chapman (2008) that rural nursing is moving away from the medical model of care provision and should follow the tenets of Primary Health Care. This secondary source was reviewed for inclusion in the review, however it was excluded on the basis that the focus of the review was use of overseas nurses as a way of addressing workforce shortages and was not on general practice of RNs working in

these areas. The roles of health promotion and education are discussed in the integrative review by Coyle, Al-Motlaq, Mills, Francis & Birks (2010) in relation to remote and isolated nursing practice.

The first of two data items used in this review by Knight et al. (2015) was a study carried out in five rural health services in Victoria, Australia. Qualitative data was obtained through policy reviews, interviews with RNs and Directors of Nursing, and focus groups. These multiple data sets provide strength to the study given the small sample size; an acknowledged allowance for case study research (Yin, 2014). Knight et al. (2015) found that RNs often faced dilemmas of achieving a balance between two or more competing demands, for example clinical need versus limited local resources. Nurses managed this by drawing on their clinical knowledge and experience alongside their understanding of the community.

Knight et al.'s, (2016) paper was of particular interest to the researcher as it offered an alternative way of considering and defining the practice of rural RNs. In the literature previously considered for the systematic review as well as some of the wider literature reviewed for this chapter, the approach taken was one of considering the nurse's scope of practice, roles within that scope of practice and advanced nursing practice. The work by Knight et al. (2015, 2016), however challenged this way of understanding the characteristics of rural RN practice. Knight et al. (2016) proposed that it was time to move away from the scope of practice specifically and understand how nurses manage the complexities that come with the context of working in rural practice. Through doing so the dimensional distinctiveness of rural nursing practice can be defined.

Knight et al. (2016) adapted the Ambiguity Tolerance Interface (ATI) Cluster Model created by Lane and Klenke (2004) to apply to the findings of their telephone triage study (Knight et al., 2015). The Ambiguity Tolerance Interface Cluster Model had four areas; spirituality, creativity, aesthetic judgement and mindfulness. Knight et al. (2016) proposed that how

nurses deal with these competing demands (ambiguity) were reflected in their earlier study (Knight et al., 2015) within these four areas. Relationships with the community were evident in all of the articles reviewed. This included spirituality, where nurses demonstrated inspired, resourceful strategies that were self-initiated to ensure the best outcomes for patients (creativity). To be able to achieve this, nurses build on their knowledge and experience of the rural context to negotiate clinical complexities such as social determinants of health and psychosocial needs (aesthetic judgement and mindfulness). Knight et al. (2016) referred to mindlessness in which a nurse does not have the ability to find alternate ways to overcome existing policy-practice gaps which limit opportunities for successful change management.

Knight et al. (2016) proposed their own model, 'how rural nurses master ambiguity: a modified ambiguity tolerance model'. This model consists of four elements which all interlink and include; knowing the rural community, mindful negotiation of multiple perspectives, factors and possibilities, aesthetic judgement to make intelligent decisions and creativity to find the best outcome. This model offers a new way of viewing the practice of rural RNs and provides a greater understanding of the capabilities and characteristics required to work as a RN in the rural context. The application and further modification of the already validated model of Lane and Klenke (2004) is a strength of this paper. The understanding generated from the application of the model can be used to inform many of the other factors presented in the body of literature on rural nursing such as, recruitment and retention strategies, CPD, undergraduate curricula content and support mechanisms.

2.3.3.2 Remote and isolated practice

Two data items focused on the remote and isolated practice nurse. First an integrative review by Coyle et al., (2010) which provides a broad depiction of the role of the RN working in remote and isolated practice, drawing on previously published literature and policy documents from QLD, Northern Territories, South Australia and Western Australia.

The second (Cramer, 2006) was an ethnographic study which set out to observe the practice of nurses working within one remote Indigenous community in Central Western Australia. Similarities can be seen between these two data items, primarily with how, once again, the remote context influences the practice of RNs. The burden of disease, isolation, accessibility to resources, medical evacuations, and socially disadvantaged populations all shape clinical practice. Examples of the daily roles and responsibilities of nurses are not, however, explicated in either data item.

Position descriptions available at the time of Coyle et al.'s integrative review were utilised to explore the nursing role. This was a strength of this paper as the currency of information was useful in providing role aspects of the remote nurse at that time. Areas on position descriptions were generalised with roles falling within four categories; clinical (all specialities and across whole lifespan), health education and promotion, administration and general. The main difference seen between remote and isolated practice and that of the rural RN is this last category of 'general' which Coyle et al. (2010) stated includes a high teaching load of AHWs, cleaning, maintenance of IT systems, vehicle maintenance and animal health. This fits with Mills et al.'s (2010) assertion that the nurse's practice becomes more generalised the further remotely they are situated.

The State/Territory variations provided strength to the review by Coyle et al. (2010) at the time of publication, offering a comparison between roles and demonstrating the associated confusion this brings. Differences were evident amongst States which were led by regulations at that level. These differences are important, as the change in regulations since 2010 may have impacted on these differences.

The need for nurses to be able to work in the absence of a Medical Officer was highlighted in both papers. Coyle et al. (2010) provided a number of resources that were available across different States and demonstrated that QLD were perhaps most advanced at that time in providing advanced practice training. This was similar to Mills et al. (2010) who

also presented examples of how QLD were providing training for nurses to become endorsed to work under the *Health (drugs and poisons) Regulations 1996* (RIPRN). The advanced roles of the nurse in Coyle's (2006) article also focused around management of medications with nurses having responsibility for ordering, storage, and administration of medications to patients. Coyle et al. (2010) highlighted resources supporting nurses to practice at an advanced level whilst remaining within their scope of practice such as the CARPA Standard Treatment Manual (STM) and the PCCM and RIPRN in QLD.

A strength of Cramer's study was the use of participant observation (amongst other data collection methods) over a prolonged period of time. During her participant observation, Cramer (2006), noted that some nurses observed in her study were readily accepting the role of medic, with their nursing role becoming secondary to this. Nurses were making decisions regarding administration of medicines independently such as the route of antibiotic administration in the absence of using any guidelines. There were other nurses that were not comfortable to work in this way and did not cross these professional boundaries. The crossing of professional boundaries and working outside of scope of practice were evident in the discussion of the role of the RN in all the papers in this review, aside from the work of Knight et al. (2015, 2016) who stated that this was not observed. The reader should be cautioned here about these findings as only telephone triage was included in the study.

Cramer (2006) noted the demands on nurses working in remote communities to be high with nurses having responsibility for 'everything day and night' yet not having resources for such a service. The on-call responsibilities of nurses—sometimes continuous over a 24hr period seven days a week—working in the community, were noted in both papers, a role that is considerably different to those nurses working in metropolitan environments and, to a lesser degree, rural environments. Demands from the community are high in remote areas and therefore the nurse's relationship with the community is essential in

nurses remaining within their scope of practice as well as ensuring manageable demands in practice. Cramer (2006) argued that nurses carry out tasks that were outside of their scope out of concern for members of their community. The nurse's personality was noted as contributing to these decisions, in particular with those nurses who held the view that no one was watching them so they could do this without concern. This finding of Cramer's (2006) study was important in demonstrating the importance of not only the context of practice but also the personal values and beliefs of the remote nurse in contributing to their practice.

2.3.4 Key findings

The key findings from this systematic review were:

- Research findings show the practice of those nurses working in rural areas as the same as those in remote areas, despite clear geographical classifications;
- Rural and remote nurses work in a variety of places e.g. mines, internment camps and pastoral;
- There are a number of factors that have contextual influences on nursing practice, such as community, culture and social determinants of health;
- Role of rural and remote nurses is generalist in nature (managing all ages across the lifespan and all clinical presentations), becoming more generalist the further remotely the nurse is based and utilising advanced skills in the absence of other health care professionals;
- There are inconsistencies in the roles and responsibilities of rural and remote nurses;
- Roles include clinical, administration, health education and promotion and general roles;
- Five domains of practice are evident and are integrated within clinical care. These are; education, research, management, leadership and consultation;

- There are a number of characteristics such as mindfulness and creativity that influence nurses' ability to work in rural and remote areas; and
- There is inadequate preparation and support for nurses working in rural or remote areas.

2.3.5 Limitations

One of the key limitations of the data in this review is the absence of any definitions of where samples have been drawn from. None of the articles selected for review stated that they focused on both rural and remote nursing. The integrative review by Mills et al. (2010) provided a comprehensive presentation of the literature published between 1996 and 2008 surrounding rural nurses within Australia but it is unclear as to whether papers researching remote nurses were also included. The review discusses definitions of rural and remote nurses and makes reference to both the ASGC systems but also the definition from the AIHW which classifies nurses working in outer regional, remote and very remote areas all under the umbrella term of 'rural nurses' (AIHW, 2008).

Three of the articles included in this review focus on rural areas and two on remote areas. Only one of the papers offered a definition as to how the authors classified these areas (Knight et al., 2015). This, therefore, makes it difficult to offer a precise picture of the practice of nurses working in both rural and remote areas and whether such practice differs depending on the level of geographical isolation. Whilst the provision of a geographical definition is important due to the vast differences in the community populations, human and material resources available, the researcher was also aware of the difficulties in defining levels of rural and remoteness. In addition, researchers self-define these levels for their own studies.

Coyle et al. (2010) like Mills et al. (2010) provided an integrative review but in this instance, it focused on remote nurses in Australia. Coyle et al.'s (2010) review focused on remote

nursing in just four areas of Australia (QLD, NT, SA and WA). It is not stated why only four States/Territories were included. There are no very remote areas in ACT and Victoria which addresses why these States were not included, however NSW does have remote and very remote areas, so it is unclear why this State was not included in the review.

Both the reviews by Mills et al. (2010) and Coyle et al. (2010) were undertaken prior to the changes in regulation. Since these reviews were published, a single regulating body now oversees the practice of nurses rather than each State/Territory having this individual responsibility. Likewise, the reporting by Mills et al. (2010) surrounding Nurse Practitioner regulation is now outdated with the NMBA holding tighter control over the ability to obtain endorsement and subsequent regulation as a Nurse Practitioner. The literature that formed these two reviews therefore was focused much more on an individual State/Territory level and the variances that this brings. Whilst variations in practice across States and Territories do still exist, these are not so distinctly variable following the 2010 regulation changes.

A sound systematic review allows an independent person to replicate the process (Liberati et al., 2009). Coyle et al. (2010) did not state the numbers of records screened or the inclusion or exclusion criteria utilised which is a limitation to the paper. The number of papers at the beginning of the review by Mills et al., (2010) is provided (178), however the authors do not go on to state how many records were used in the final review. In screening the 178 papers the authors examined all papers that discuss the 'status' of rural nursing. This broad and subjective term is not defined which makes a rigorous replication of the review difficult. Without the details of the included papers available it is also difficult to understand what the scope of the review was in relation to the geographical areas in which nurses were working (rural, remote or very remote). Mills et al., (2010) also state that the additional knowledge held by one author regarding rural developments had also been

drawn upon to expand the search. What these additional factors were, however, was not stated in the paper.

In considering Cramer's (2010) study there were also several limitations. Firstly, the sample consisted of RNs and AHWs who worked in a short-term or relieving capacity. The results did not state how many RNs were within the mixed sample. Some employees were only working within the community for a week at a time, others worked for up to eight months. The background information would have been helpful in establishing whether a particular role or behaviour may have been affiliated with the length of time the nurse had worked in the community or whether it was a RN or AHW role. Despite this limitation, however, this also served as a strength in understanding the remote nursing workforce where there is a constant flow of staff entering the community.

Cramer's background is also not known, whether she had a history in working as a remote area nurse or not and therefore whether any biases may have been present in observing and reporting of findings. Finally, the study was confined to one particular community in Western Australia, thus the results regarding the roles of the nurses is not generalisable. The study does, however, provide a platform for replication in other areas and comparisons to be drawn.

Study limitations were made clear by Knight et al. (2015) including the absence of any participant observation. Thus, conclusions were drawn on description alone and the risk of researcher bias was therefore a possibility. Strategies to overcome limitations were cited offering a rigorous account of the study. The follow up article from Knight et al. (2016) had not been tested and whilst their model was viewed as interesting, further application of the model to rural and remote nurses in all contexts is important prior to accepting any claims.

2.3.6 Conclusion

It was apparent at the end of the systematic review that the focus in the arena of rural and remote nursing research has more recently been concerned with highlighting the stressors on nurses, rather than establishing a framework that is reflective of their daily working lives. Despite information obtained within this systematic review, the more specific roles and responsibilities of the rural and remote nurse have not been well defined within the last 18 years. Where attempts have been made, there is a lack of definition as to sample sizes or inclusion criteria for review.

2.4 Chapter summary

This chapter has provided a general review of the literature, discussing rural and remote nursing practice and the preparation for such practice. Following this, a systematic review was presented using the PRISMA framework. Whilst on first glance there appears to be a wealth of literature on rural and remote nursing, much of this work was carried out between 1990 and 2007 with the leaders in this work being Hegney, Mills, Francis and Lenthall. Since this time, however, there have been minimal further delineations of the generalised role, with the focus in the literature being on specific roles such as mental health nurses, occupational stress, increasing support and recruitment of nurses to rural and remote areas. Indeed, since 2007 there appears to have been a decline in the volume of research undertaken into rural and remote nursing generally, supporting the need for further research in this area and therefore for this PhD study.

There is limited knowledge on the practice of Registered Nurses working in these areas since the national regulation by the Australian Health Practitioner Regulation Agency and the introduction of national standards for practice. Indeed, the work that was used within the systematic review consisted of three of the five papers being written prior to the

changes in regulation for both Registered Nurses as well as Nurse Practitioners. This is significant as the researcher of this PhD study anticipates that the roles and responsibilities of the nurse may have changed without the specific regulation and guidelines that may have been provided by individual nursing boards.

Knight et al. (2016), has suggested that researchers need to move away from delineating the practice of rural and remote nurses by scope of practice alone. Further work is still required to build or refute such claims. It is, however, recognised that the context of practice is important in defining the nursing role.

The absence of recent literature and availability of clear definitions of practice between rural and remote or isolated areas lends support for the conduct of this study. The study has the potential to:

- Provide a current description of practice since the amalgamation of individual nursing boards in 2010;
- ascertain whether the situation previously documented in the literature remains current;
- identify any differences in the practice of a rural nurse and one working in a remote area;
- contribute new knowledge to the field which is drawn from the data of rural and remote nurses alone and not that which is combined with those nurses working in urban or metropolitan areas; and
- share findings in which consideration is given to alternate ways of delineating practice.

CHAPTER 3.RESEARCH DESIGN

3.1 Introduction

Prior to this chapter, Chapter One provided background to this research and presented the purpose of the study; to delineate the roles and responsibilities of the Registered Nurse working in rural and remote areas of Australia and to explore the clinical and educational preparation required to fulfil such roles and responsibilities. The research question asked; 'what is the practice of Registered Nurses working in rural and remote areas of Australia?' The significance of the study was argued for, in particular the need for new research to ascertain the current situation for rural and remote nurses. The social and political context was presented and emphasised as important for this study due to the regulatory requirements for nurses to adhere to a prescribed scope of professional practice. Chapter Two presented a review of the literature and showed the need for this study.

The current chapter will now discuss the chosen research approach that of case study. Social and political influences are key to case study research and social constructivism was used as it was considered a suitable philosophical worldview in which to situate this study. The main philosophical arguments of social constructivism are presented in this chapter. The chapter will present the broad principles which must be adhered to when using case study research, according to Yin's guidelines. These principles include; the type of question, the level of control the investigator has over the study, the contemporary nature of the phenomenon, case study type and design, the use of multiple sources of evidence and maintaining a chain of evidence. The chapter then demonstrates how case study research was implemented during this study, starting with the five key principles proposed by Yin (2014), which are:

- The study question;
- Study propositions;

- The case;
- The logic linking the data to the propositions; and
- The criteria for interpreting the findings.

The chapter will also discuss the purpose of triangulation (collection of multiple sources of data) and its role in consideration of rival explanations. The chapter concludes with a discussion of the ethical considerations and the steps taken to ensure the rigour of the study.

3.2 Yin's case study as a research design

This section of the chapter will discuss the broad principles used to guide case study research.

3.2.1 Choosing the research approach

Case study research was chosen for this study as the most useful to answer the research question compared to other research designs and methodologies. Case study research has its history in education, health and social sciences and has been specifically used to explore roles in nursing (Yin, 2014; Sangster-Gormley, 2013; Luck, Jackson and Usher, 2006). Following the decision of which design or methodology, the next choice was to determine the specific case study approach to use.

Early in the candidature, time was spent comparing the viewpoints of Yin (2003, 2009, 2014), Stake (1995) and Merriam (1998), key theorists in the method, on what case study is and how it should be applied. Some of the research questions in this study suggested a qualitative data collection and analysis approach would be required. The work of Stake and Merriam ascertains the exclusive use of qualitative data, not seeing a place for quantitative data (Yazan, 2015). However, Yin (2014) asserts that both qualitative and

quantitative data has a place in case study research. As the researcher believed in the principle of being guided by the data emerging from each phase and didn't want to be constrained by qualitative data alone, Yin's approach was selected as the most appropriate so that either qualitative or quantitative data could be collected as required.

Whilst case studies can use qualitative or quantitative methods this study was completed using qualitative data alone and sat within the constructivist inquiry paradigm.

3.2.1.1 The influence of the social constructivist paradigm

Early in the study the researcher identified an influencing philosophical stance in which to situate the study. This paradigm is a set of beliefs or assumptions that the researcher has (Guba & Lincoln, 1989). Yin does not clearly delineate his philosophical beliefs; however, his early work does take on a positivist stance. This positivism is seen to have developed over the years with his latest work taking more of a post-positivist stance. Positivism and to a lesser extent, post-positivism reflects a traditional approach, one which assumes a fixed and orderly reality with clear cause and effect (Polit & Beck, 2014). Whilst the objectivity and rigour offered by the positivist stance is important to the researcher she believes that phenomena are subjective and changing and it is this reconstruction of phenomena that the researcher wanted to understand. Work by other seminal case study researchers (Merriam 1998; Stake 1995) supports the use of constructivism as a paradigm for case study research and for the researcher of this study, social constructivism holds true to her beliefs that knowledge is generated through a person's experiences and interactions with their social world (Patton 2002). As such this study was set within the social constructivist paradigm which assumes that reality is socially constructed through multiple realities or interpretations of a phenomenon (Merriam, 2015; Patton, 2002). Social constructivism is interested in how people have constructed reality in their social setting, seeking to identify individual perceptions or truth claims, their explanations of the way they view something, their beliefs and their worldview. By understanding this situation, the

researcher can explore the consequences of a person's social constructs, and how they respond or deal with them (Patton, 2002).

The researcher in this study did not propose to make a change to the practice of RNs on the basis of conflict or oppression (as in a critical paradigm). Rather, the purpose was to describe, understand and interpret how these nurses practice and prepare for practice. Creswell (2013) writes that *"…often these subjective meanings are negotiated socially and historically…they are not simply imprinted on individuals but are formed through interaction with others…and through historical and cultural norms that operate in individuals' lives".* (p. 25). In line with the principles of Yin (2014) both the social and historical context is important, and constructivism supports this in that these aspects amongst others, have a direct influence on the social constructs that people form. In addition, both constructivism and Yin's principles emphasise the importance of the phenomenon under investigation being context-bound. Each phase of data collection within this study builds upon the previous one to strengthen or refute findings found earlier, rather than each phase providing differing perspectives on the same phenomenon as in a critical paradigm.

The social constructivist paradigm offers compatibility with the ontological (reality) and epistemological (knowledge) foundations of qualitative research (Guba and Lincoln, 1989). It also fits within Yin's (2014) principles in that it acknowledges the boundaries of the phenomenon under investigation and the social and historical context in which the phenomenon sits. Social constructivism is thus appropriate as the underlying paradigm for this study.

The key influencing principles of Social constructivism which guided this study included:

- individuals are able to explain the way that they view something and consequently how they respond to a situation;

- a person's experiences and interactions with their social world will generate knowledge;
- reality is socially constructed through interpretation of a phenomenon;
- historical and cultural norms have a direct influence on a person's views and beliefs; and
- social constructs as well as the phenomenon under investigation are context-bound.

3.2.2 Defining case study research

Yin (2014) defines case study research as "an empirical enquiry that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident" (p. 16).

3.2.2.1 Contemporary phenomenon

Case study is suitable when the inquiry is on contemporary phenomena rather than historical events (Yin, 2014). As this study focused on the roles which employed nurses were currently undertaking, and excluded those nurses not working clinically in rural or remote nursing (see section 3.4.3), it also met the criteria of exploring a contemporary phenomenon. In continuing to adhere to a contemporary phenomenon, only the regulations, legislation and policy being implemented at the time of the study were included in the document analysis phase of the study. Previous or noncurrent legislation was not included. Based on Yin's conditions for guiding choice as to whether to use a case study research design, it was considered appropriate to adopt case study for this investigation.

In the case of this study the researcher wanted to understand nursing practice (the phenomenon or 'case') of a nurse working in a rural or remote environment (geographical context) in Australia (national context) (see Figure 3.1)

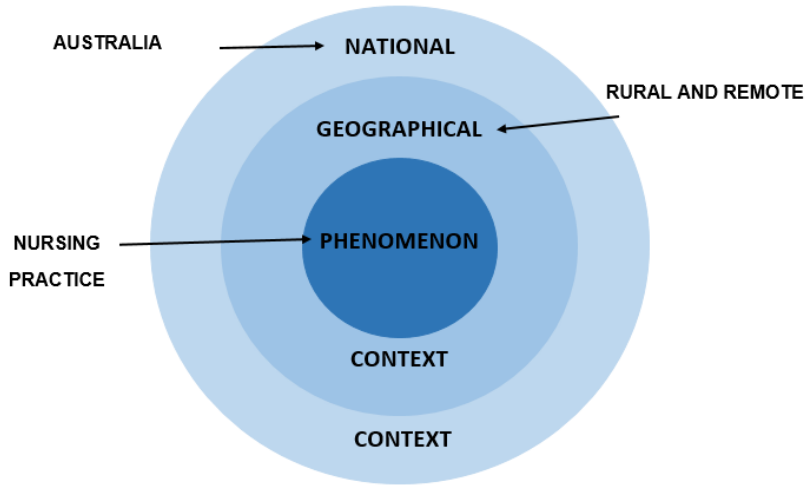


Figure 3.1 The case study

3.2.3 The question

In considering the appropriateness of adopting a case study research design the researcher firstly considered her primary question. For case study to be appropriate the research question must focus upon answering 'how', 'why' or be an exploratory 'what' question (Yin, 2014). The primary and secondary questions aligned well with Yin's proposed application of case study research as all these types of questions were identified for this study and are presented in section 3.4.1.

3.2.4 Level of researcher control

Yin (2009) outlines that the study should be one which the investigator has little, or no control over. This study explored the roles undertaken by nurses in their natural settings, which the researcher could not manipulate in any way.

3.2.5 Case study types

Yin (2014) describes three different types of case study; explanatory, descriptive, and exploratory. The explanatory case study looks at causal effects to real life interventions (Baxter and Jack, 2008; Yin, 2003). As the researcher was not investigating an intervention

this was not appropriate to use. The exploratory case study identifies research questions or procedures to be used in future study and whilst this may occur, this was not the researcher's aim for this piece of work. The descriptive case study describes a phenomenon in its real-world context and as such was an appropriate type of case study for this research.

3.2.6 Case study designs

Within the descriptive case study, the researcher was then required to make a decision as to whether she would use a multiple or single-case study design and whether there would be any embedded units of analysis. Embedded units of analysis refer to when more than one sub-unit of analysis is included. The advantage of embedded units is they provide greater detail of inquiry compared to only using one unit (Yin, 2009). Yin (2009) describes four different designs for case study; single-case (holistic), single-case (embedded), multiple-case (holistic) and multiple-case (embedded) and these can be seen in Figure 3.2.

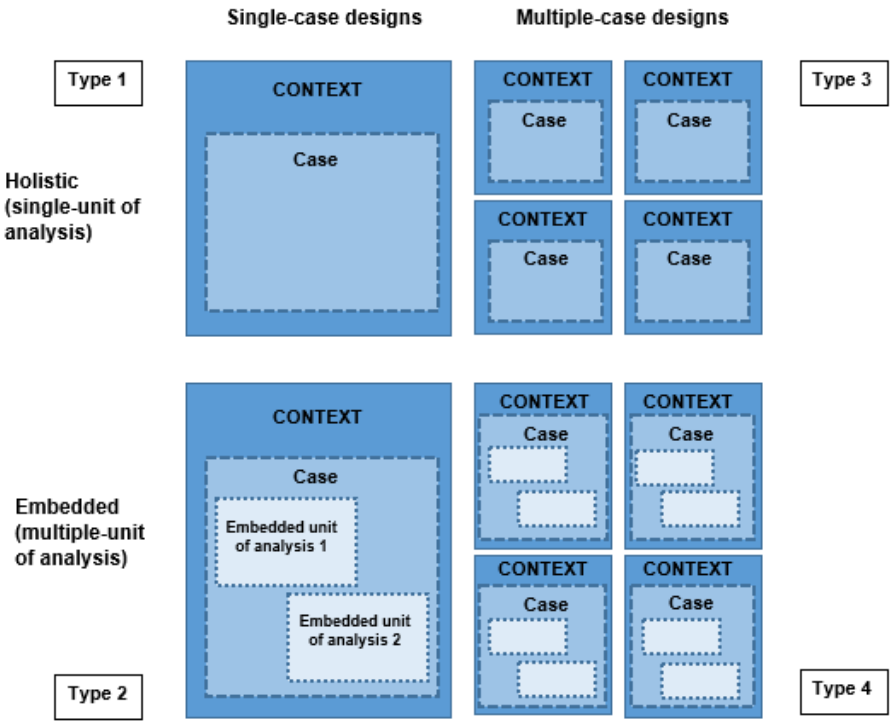


Figure 3.2 Case study designs

Source: Case Study research, design and methods (p.50), Yin, 2014, California: Sage.

Single-case designs are useful when the case is critical in testing a theory, or is a unique or extreme case, is representative of a typical case, is revelatory or longitudinal (the same case being studied over two different points in time) (Yin, 2009). Within a single-case study there may be more than one embedded unit of analysis, for example more than one nurse participating (single-case (embedded) design). When the study contains more than a single-case a multiple-case design is used, which differs from a single-case (embedded) design in that the context surrounding each case is different (Baxter & Jack, 2008). It is the multiple-case (embedded) design that was considered the most appropriate design for this study. Yin (2014) argues that the use of multiple cases can be stronger and more robust than that of the single-case as they have the ability to demonstrate literal replication

(more than one case predicts similar results) or a theoretical replication (each case predicts contrasting results but for anticipatable reasons). Despite multiple-case study design requiring more time and resources, the advantage of carrying out a more robust study was important to the researcher. Whilst results are not generalisable the case study was expected to demonstrate similarities and differences on which further work could be based. Multiple cases (RN practice) was explored across two states of Australia, NSW and QLD. Due to the constraints of the size of the PhD the researcher was restricted to collecting data from only two states and chose NSW and QLD as two states easy to access which both contained rural and remote areas (more on these decisions will be provided further in other appropriate sections in this chapter). It was anticipated that further work would need to be carried out if the results were to be in any way generalisable across Australia on completion of the doctoral study.

Figure 3.3 illustrates the multiple-case embedded design for this study (note that the number of embedded units of analysis are not representative of final participant numbers for this study).

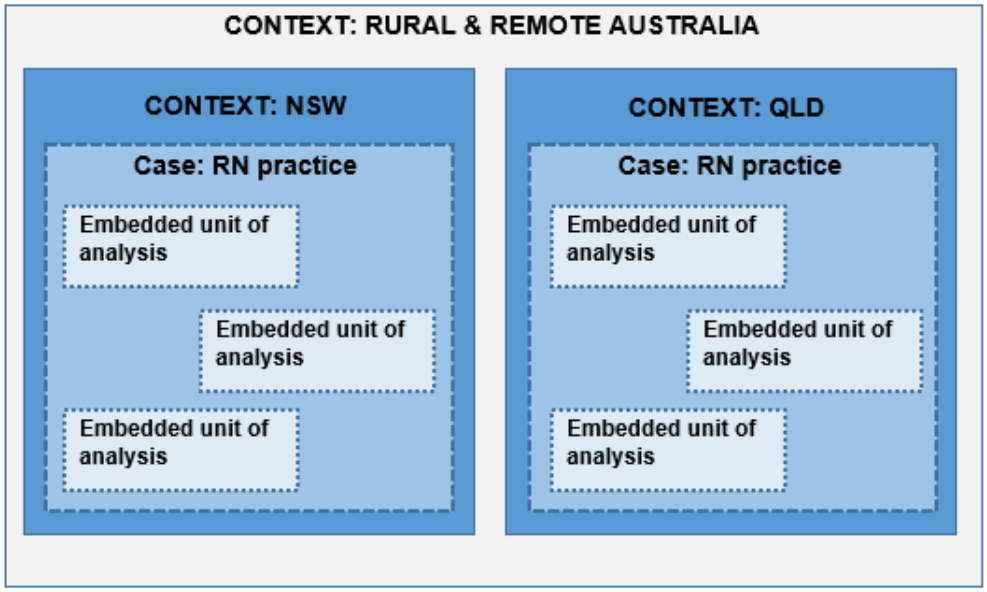


Figure 3.3 Multiple-case (embedded) study design

3.2.7 Multiple sources of data

Having decided on an descriptive, multiple-case embedded case study as being the most appropriate design for this study the researcher further investigated other key features to undertaking case study research. First Yin (2014) states that a case study relies on multiple sources of evidence. Multiple sources of data not only allowed the researcher to address a broader range of issues, but it also strengthened the study through the convergence or triangulation of data (Yin, 2014). This study consisted of three phases of data collection:

- Phase One – Document review
- Phase Two – Online questionnaire
- Phase Three – Telephone interview

Each phase was not designed to obtain data from a different perspective but to confirm (chain of evidence) or refute findings (rival explanations) from previous phases until all secondary research questions were answered. Additionally, Yin (2014) argues that a high-quality case study using data triangulation proves that the findings can be supported by more than one single source, which he referred to as the chain of evidence (for further explanation please see below in section 3.2.8). A discussion regarding the data triangulation is included in each of the three phases of this study, which are presented in Chapter Four, Five and Six.

When using Yin's framework, evidence used in a case study can be qualitative, quantitative or a mixture of the two types of data, depending on the phenomenon that is under investigation. The researcher remained open to either of these research paradigms, and whilst some quantitative research data was collected in the forms of frequencies to gain clarity of the context of each unit of analysis, at the end of Phase Two it became apparent that it was the qualitative data that was required within this investigation to provide the depth necessary to understand the nursing practice of participants and not the quantitative, numerical measures. Qualitative research acknowledges and explores multiple versions of reality which are closely linked to the context in which they occur, and therefore, are representative of a person's own views and situation within their social setting (Braun & Clarke, 2013).

3.2.8 The chain of evidence

In addition to the use of multiple sources of data to confirm findings, the researcher must construct a chain of evidence which Yin (2014) describes as the links between each of the stages from the initial research question through to conclusions drawn. Thus, at the end of each phase of data collection the findings of each phase should be linked to the next. As each phase informs the next, the data in each phase looks to confirm or refute previous findings, and evolving conclusions are finally reached towards the end of the study. The

chain of evidence is, therefore, an essential component of both building conclusions as well as providing rigour to the evidence presented.

In summary; this study was appropriate for a descriptive, multiple-case study (embedded) design, to investigate the phenomenon of RN practice within the context of rural and remote Australia. The study consisted of three phases; a document analysis, an online questionnaire using qualitative open-ended questions and semi-structured interviews. The data of each phase was examined to see whether the secondary research questions were answered, refuted or not answered. Once all secondary research questions were answered the data was collated together. Advanced data analysis was then implemented to examine this converged data which aimed to answer the overall primary research question and provide further explanation for the secondary research questions.

3.3 Applying Yin's Case Study principles

Section 3.2 provided an explanation as to why the researcher adopted case study as a research design for this study. It presented some broad principles that yin proposes. As previously noted, the subject of this study was defined as RNs working in rural or remote areas of Australia. The design was descriptive case study, specifically multiple-case (embedded) design. This section will now discuss the design of the study in more detail.

In choosing to use Yin's (2003, 2009, 2014) framework for this study there are five components that are critical to case study research design which will now be discussed. These are:

- the study question;
- the study propositions;
- the case;

- the logic linking the data to the propositions; and
- The criteria for interpreting the findings.

3.3.1 The study question

The first and possibly most important (Yin, 2014) step in case study research design is to establish a firm focus and purpose for the research and this is done through the development of the research question(s). As discussed earlier in this chapter, case study research generally answers one or more 'how', 'why' or 'what' questions aiming for a detailed explanation of the phenomenon (Yin, 2014).

The aim of this study was to:

> Delineate the roles and responsibilities of the Registered Nurse working in rural and remote areas of Australia and to explore clinical and educational preparation required to fulfil such roles and responsibilities.

The research question asked:

> What is the practice of Registered Nurses working in rural and remote areas of Australia?

The secondary research questions asked:

- What are the roles and responsibilities of the RN working within rural and remote areas of Australia?
- How do rural and remote nurses work within their registered scope of practice?
- How do RNs prepare for practice in order to fulfil their roles and responsibilities in rural and remote Australia?
- Why and to what extent are Eco-social influences so important to the scope of nursing practice in rural and remote Australia?

- How do rural and remote nurses overcome barriers to sustain motivation and address challenges in providing effective health care provision?

3.3.2 Study propositions

Theoretical propositions are formulated prior to data collection with each proposition directing its attention to something that should be examined within the scope of the study (Yin, 2009). The researcher can have several propositions. Each proposition typically has its own distinct focus and purpose (Baxter & Jack, 2008). It is the study propositions that determine the direction of the study, focus data collection, form the foundation for the conceptual framework, and later guide the discussion (Yin, 2009; Baxter & Jack, 2008; Stake, 1995; Miles & Huberman, 1994). Propositions are formulated from the literature, personal or professional experience of the researcher, theories or generalisations based on empirical data (Simons, Ziviani & Copley, 2011; Yin, 2009; Baxter & Jack, 2008).

Propositions used in case study research are not the same as a quantitative hypothesis, which makes a prediction. Indeed Yin (2009) clearly states that case study research does not try to statistically generalise results to the larger population. They do, however, make sense of the case(s) and provide the population (nurses working in rural and remote regions of Australia) with an opportunity to review the findings and apply to their own situation as appropriate. Where more than one case is investigated and the same findings are obtained the researcher can claim replication, thus providing the rigour that is sought in any research study (Yin, 2009). In addition to guiding the data collection and discussion for the research questions Baxter and Jack (2008) note that by including specific propositions the likelihood of limitations on the scope of a study are increased and subsequently the feasibility of completing the project. The researcher ensured that alongside the formation of the theoretical propositions she also minimised the number of cases to two (QLD and NSW) so that the project would remain within the scope of a PhD.

Propositions as they relate to each of the questions delineated for this study can be seen in Table 3.1.

Table 3.1 Study propositions

Research Question	Proposition
What are the roles and responsibilities of the RN working within rural and remote areas of Australia?	There are a variety of roles and responsibilities held between nurses working in rural and remote areas of Australia.
How do rural and remote nurses work within their registered scope of practice?	There are some roles and responsibilities of the rural and remote RN that are an extension of their practice and indicate a level of advanced practice. There are a number of organisational concerns regarding the scope of practice of registered nurses working in rural and remote areas [including patient safety, workforce planning, recruitment and retention].
How do RNs prepare for practice in order to fulfil their roles and responsibilities in rural and remote Australia?	There is international variation of advanced level practice and preparation for it. There is a variation amongst rural and remote RNs as to the amount and level of CPD/preparation for practice in the rural and remote area. The RNs working in rural and remote areas require advanced level thinking and practice to fulfil their roles and responsibilities. There are a number of existing programmes available to prepare the RN for advanced level practice.
Why and to what extent are Eco-social influences so important to the scope of nursing practice in rural and remote Australia?	Economical influences of the community will determine some of the clinical issues nurses will be exposed to and/or required to manage and treat. Examples may include; agriculture, mining, availability of human and material resources and economic issues such as political elections that may take place during the time of the study.

How do rural and remote nurses overcome barriers to sustain motivation and address challenges in providing effective health care provision?	Rural and remote nurses can face a number of challenges which can have an effect on their practice. Rural and remote nurses use their networks across locations to gain support and information to provide effective health care.

3.3.3 The case

Yin's (2014) second principle relates to defining the 'case', which must be defined from the outset (Simons et al., 2011). The case can be an individual, a decision, a program, an implementation process or an organisational change (Yin, 2014) and is a specific phenomenon of some sort occurring in a bounded context (Creswell, 2003; Miles & Huberman, 1994). It is this context that is so important in case study research and what sets case study apart from other research designs. It is the contextual conditions, in this case the rural and remote setting, that are highly pertinent to the phenomenon of the study (Yin, 2009). Whilst the case should be defined once the primary research question is written it can be changed as data is collected and analysed and as the investigation may change course (Yin, 2009, Zucker, 2009). This did not occur during this research and the case remained the same throughout the study.

The case for this study was:

'Rural and remote nursing practice in the State/Territory of Australia.'

Once the case has been defined it is important that some boundaries are used to bind it or there is the risk that the topic will become too broad and the study too large (Merriam, 2009; Yin, 2009; Baxter & Jack, 2008; Stake, 1995). In addition, the boundaries will provide a contextual description that is required to understand the context in which the case is revealed (Hyett, Kenny & Dickson-Swift, 2014). There are a number of ways in which a case can be bound including: by time and place; time and activity, the geographical size of a State or Territory, use of concise definitions, a context, or it may be informed by existing literature allowing for comparison of findings from similar studies (Yin, 2009; Baxter & Jack, 2008; Stake, 2005; Creswell, 2003; Yin, 2003). A boundary is what should be considered when determining if someone or something should be included in the case study research. Similar to an inclusion and exclusion criteria for sample selection for other research approaches, the boundaries that are established within case study research also

describe the sample to be included as well as show the depth and breadth of the study itself (Baxter & Jack, 2008).

Boundaries applied to the case were:

- Only those RNs who are working within a rural, remote or very remote setting within the relevant State/Territory in Australia at the time of the study, as delineated by the Australian Standard Geographical Classification – Remoteness Areas (ASGC-RA) (Australian Bureau of Statistics [ABS], 2014) were included.
- Each case was bounded by State borders e.g. NSW, QLD.
- The RN (as above) must have a role working clinically with patients/service users in rural, remote or very remote settings.
- The study will only explore postgraduate curricula and preparation for rural and remote practice, however undergraduate clinical experiences may be drawn upon if relevant.
- The data collection will continue until there is an established chain of evidence (a clear demonstration of how the findings were derived from the data and led to the conclusions made) (Yin, 2014), which supports a conclusion as per Yin's (2014) principles of reliability and validity.

Earlier in this chapter the four possible case study designs as described by Yin (2014) were presented. The researcher highlighted that it was the multiple-case (embedded) design that was considered the most appropriate design for this study. Chapter Five and Six will illustrate the chosen cases and embedded units within the context of rural and remote practice for this study at each phase of data collection.

This study comprised of two States; NSW and QLD. These two States were selected on the basis that they had good geographical representation ranging from rural to very remote. States such as Victoria and Australian Capital Territory (ACT) do not have 'very

remote' areas and as such were excluded from the study. In addition, due to the residential location of the researcher the states of QLD and NSW provided an ease of access should she had been required to carry out any field visits for observations as part of the study. It was anticipated that collecting data from within NSW and QLD rather than widening the study across more States/Territories would ensure that the study remained within the constraints of a PhD. If it had subsequently became apparent that more data was required then the researcher would have considered widening the study to other States/Territories, however this was not required.

3.3.4 The logic linking the data to the propositions

Yin's (2014) fourth principle relates to choosing the appropriate data collection tools to address the theoretical propositions; basically, determining a logical way to link data to each proposition. The phenomenon of interest in this research was that of the practice of Registered Nurses working specifically in rural and remote areas in NSW and QLD. This phenomenon; 'the practice' is influenced by the broader legislative foundations of this practice, as well as those factors locally affecting practice such as the environment (human and material resource allocation), training and an individual's own personal experiences. As the influencing factors were important to the phenomenon (the practice), data needed to be collected to capture these factors. Therefore, the first data set was document analysis, particularly for understanding the influence of registration documents. This first phase of data collection and analysis also gained information about the nature of rural and remote nursing. To build the chain of evidence, the second phase of data collection was in the form of an online questionnaire. This questionnaire included other factors highlighted in Phase One such as the challenges and motivators of working in rural or remote areas. Finally, semi-structured interviews in the third phase of data collection were implemented to gain greater insights into all factors identified, and more specifically to examine in

greater detail individual practices. These three individual phases of data collection are discussed in section 3.5.1.

3.3.5 The criteria for interpreting the data

The final principle to be discussed is the criteria for interpreting the study's data (Yin, 2014). During the design phase of the study, the researcher spent time considering a general analytic strategy, however it was also important to review and alter the analytic plan as data was collected and each phase analysed (Yin, 2014). Yin (2014) proposes four analytic strategies (relying on the theoretical propositions, working data from the ground up, developing a case description and examining rival explanations) and each of these were implemented by the researcher. The analytic strategy was in the main inductive in that the data was leading the analysis, patterns were sought, and new concepts emerged. However, the researcher did not lose sight of the original theoretical propositions. Therefore, the patterns and concepts emerging through analysis were also viewed in light of these theoretical propositions. During this analysis it was also useful to consider the case, in particular which State (NSW or QLD) and the geographical classification which also formed part of the analysis strategy (whether the practice was occurring in rural, remote or very remote regions). The final analytic strategy used was that of examining rival explanations in which the researcher was continually looking for alternative reasons for the patterns that were emerging. Analysis of the data is discussed further in section 3.5.2.

3.4 Research site and participants

3.4.1 Geographical location of the research site

The research was undertaken throughout rural, remote and very remote NSW and QLD, Australia (see section 3.3.3 for justification). To determine appropriate research sites a

geographical classification system was required to identify health facilities within rural and remote areas and, once participants were recruited, to place them into appropriate units of analysis to build each case. This would then allow cross-case comparison between the two states and within each case. As such various geographical classification systems were examined for suitability. These systems were presented in Chapter One. The following will discuss the systems as related to this study.

Whilst the Rural Remote and Metropolitan Areas (RRMA) system was useful in the levels that it applied to each layer in relation to breaking up the size of rural and remote areas across five levels, these levels were formed on population size alone and did not consider the distances those populations had to travel to access any amenities. Additionally, the population data had also not been updated since 2001. The ASGC-RA classification structure (ABS, 2014) has replaced the RRMA in applying levels to geographical area and the system is formed on distances travelled to access amenities rather than population sizes. It was anticipated that this information would be pertinent to this study as opposed to the geographical population as it was the accessibility of services that was expected to influence the practice of the rural and remote nurse. As such this classification system was chosen as suitable for assisting in the allocation of participants to units of analysis. The levels of remoteness used in the ASGC-RA are wider than the RRMA and some postcodes sat across two different levels. In these circumstances the Accessibility/Remoteness Index of Australia (ARIA+) scores were used to give an overall accessibility score to decide at which level the participant would be placed. The ARIA+ is based on the considered accessibility of a location to service centres or the remoteness of places. The ARIA+ index consists of scores from zero-15 based on the road distance to service towns of various sizes by averaging a 1km² grid (Queensland Government, 2014). Therefore, whilst some participants/sites were placed at an outer regional (RA3) level (rural), their level of accessibility to amenities was low. The benefit of utilising the ASGC-RA classification

system was also that the Department of Health uses this system in allocating healthcare staff incentive packages according to the levels.

The ASGC-RA (2006) levels and ARIA+ scores can be seen in Table 3.2

Table 3.2 ASGC-RA levels and ARIA+ scores

ASGC-RA Level	ARIA+ Score
RA1 Major cities	**0-0.2** Relatively unrestricted accessibility to a wide range of goods, services and opportunities for social interaction.
RA2 Inner regional	**0.2-2.4** Some restrictions to accessibility to some goods, services and opportunities for social interaction.
RA3 Outer regional	**2.4-5.92** Significantly restricted accessibility to goods, services and opportunities for social interaction.
RA4 Remote	**5.92-10.53** Very restricted accessibility to goods, services and opportunities for social interaction.
RA5 Very remote	**>10.53** Very little accessibility to goods, services and opportunities for social interaction

Note. Adapted from Australian Bureau of Statistics. (2014). *Remoteness Structure.* Retrieved from http://www.abs.gov.au/websitedbs/d3310114.nsf/home/remoteness+structure and Australian Institute of Health and Welfare. (2004). *Rural, regional and remote health A guide to remoteness classifications.* AIHW Cat. No. PHE 53. Canberra: AIHW. P. 11.

All healthcare facilities employing at least one RN were eligible to participate. Sites ranged from primary care health centres through to hospitals and health services. Specific sites are discussed within Chapter Five and Six.

3.4.2 Sampling framework

Purposeful sampling was used throughout this study; a framework that is widely used in qualitative research for identifying and selecting information-rich cases related to the phenomenon of interest (Palinkas et al., 2013; Cresswell & Plano Clark, 2011; Teddlie & Yu, 2009; Patton, 2002). There are a number of different types of purposeful sampling designs discussed in the literature, however, for the purposes of this study maximum variation and snowball sampling were utilised. Maximum variation sampling aims to find instances that are representative or typical of particular types of case on a dimension of interest and to achieve comparability across different types of cases on a dimension of interest (Teddlie & Yu, 2009, p.80). Maximum variation sampling is particularly useful in documenting unique or diverse variations that have emerged in adapting to different conditions, and to identify important common patterns that cut across variations (Palinkas et al., 2013). During Phase One maximum variation sampling was used when deciding which documents would be reviewed to ensure that the most recent and comprehensive documents were accessed to provide as full a picture of the phenomenon as possible. By using maximum variation sampling in Phase Two and Three; data was obtained from those working within each of the sub-categories of the ASGC-RA classification system from rural through remote through to very remote.

With the desire to collect data from each of the above areas (rural through to very remote communities) the challenge was to access the participants. Thus, the second purposive sampling strategy used was that of snowball sampling. Snowball sampling is when the researcher identifies cases of interest and accesses such cases through other participants either through the contact information provided or by the researchers' information being

passed on to the potential participant. Participants identify others that generally have the same or similar characteristics to them, according to the inclusion criteria defined by the researcher (Palinkas et al., 2013), or in this study the boundaries applied to the case. The recruitment website asked participants to forward the details of the study on to anyone else that they knew who met the criteria.

3.4.3 Recruitment

Participant recruitment was only necessary for Phases Two and Three of the research. Phase One was a document analysis and therefore did not require any human participation. All documents were accessed via the internet and were publicly available. The researcher did set inclusion criteria for the documents in deciding which ones would undergo a full analysis and these criteria are located within section 3.5.1.1 which describes in detail the process of document data collection, conforming to Yin's (2014) assertion that one must have boundaries which define the case.

3.4.3.1 Phase Two recruitment

Recruitment to Phase Two took place in two ways. As part of the research governance approval process, Executive Directors of Nursing at each of the Hospital and Health Services (HHS) and Local Health Districts (LHD) were approached and asked whether they or a delegate (Clinical Nurse Educator or Human Resource Department) would act as the liaison person for sending out the recruitment email to the nursing staff at the relevant rural and remote facilities that fell under their jurisdiction. Once research governance approval was received, the researcher sent the nominated person an email to be forwarded to all Registered Nurses in the relevant facilities. The email contained brief information about the study, its aims, significance and what would be required of participants (appendix A). The email also contained a web link to the study website for participants to click on to obtain more information about the study if required and to access the questionnaire.

Due to the time lapse between submission of the application and receipt of research governance approval (a total of 24 applications submitted for 240 research sites), the researcher submitted an amendment to the original ethics approval to allow her to recruit via the International Council of Nurses (ICN) Rural and Remote Nursing Network. The ICN is an international network of nurses that work in or have an interest in rural and remote nursing. The network serves as a global resource by providing effective networking and linkages. Following ethical approval for the amendment and with permission granted from the ICN, a blog was written to be posted on the network's forum advertising the study and giving the link to the website for further information and access to the questionnaire. The account approval took many weeks during which time the research governance approvals were received, and data was obtained through the questionnaire. Whilst the blog remained an option for further recruitment the researcher decided that she would delay posting on the network's forum to determine how many participants could be recruited through contact with health facilities. Ultimately the blog was not published as the sample grew sufficiently from the various sites.

Whilst the snowball sampling (word of mouth) provided further recruitment it also enabled maximum variation of participants as participants often knew others working in similar geographical areas (remote or very remote). The researcher also discussed the study at networking events to enhance the snowball approach. It became evident that this approach was successful, as the researcher received several e-mails from nurses that had heard about the research and wanted to know more.

3.4.3.2 Phase Three recruitment

Whilst the pilot study for Phase Three was taking place (see section 3.5.1.5) the researcher contacted those participants from Phase Two who had agreed to participate further in the study to confirm their availability for Phase Three. Of the 75 questionnaire participants 44 (59%) agreed to an interview. Potential participants were contacted from all NSW LHDs

and QLD HHS' aside from Torres & Cape HHS (see below), via email. Thirty-seven participants were sent an email by the researcher updating them on the progress of the project and requesting their further consideration on interview participation. A consent form (appendix B) and participant information sheet (site-specific in some cases) (appendix C) were attached to the email and participants were asked to send back a signed consent form should they remain willing to participate.

From the first round of e-mails 18 of the 37 nurses responded. Of those 18, 16 nurses returned signed consent forms and two people informed the researcher that they were no longer able to participate. One was going on maternity leave and another no longer worked clinically with patients, thus no longer meeting the boundaries binding the case (study inclusion criteria). A follow up email was sent to the 19 participants that had not responded to the original email sent one month previously. Following that email correspondence, a further four participants were recruited.

Torres & Cape HHS had provided research governance for Phase Two of the data collection only. Due to smaller numbers of nurses working in this HHS, the RGO needed precise numbers of potential Phase Three participants prior to granting approval. As such, those nurses working in Torres & Cape HHS (n=7) were sent a separate email, again updating them on the progress of the study but also explaining that further research governance approval would now be sought. For this the researcher needed to know how many nurses would go forward to interview. Five of the seven nurses responded expressing an interest in continuing to participate in the project. As such the research governance officer (RGO) was contacted at Torres & Cape HHS with numbers of participants and some general Site-Specific Application (SSA) questions. An email response was received from the RGO stating that due to the numbers of participants no further SSA needed to be submitted and that the original SSA would now cover Phase Three of the study as well. Following this response, an email was sent to the five potential

Phase Three participants in Torres & Cape HHS requesting their consent and further participation now that governance approval had been given.

On the return of participant consent forms, a list of available interview slots were sent out to participants and interviews were scheduled at mutually convenient times. Interviews were allocated 60-minute time slots and a courtesy reminder email was sent one day prior to the interview taking place. Recruiting participants and locking them into a date for interview was challenging.

3.4.4 Description of participants

Participants in this research were all Registered Nurses that were, at the time of the study, working clinically with patients/clients in a health care facility/s whose postcode was classified in ASGC-RA (ABS 2014) categories RA3, RA4 or RA5. Participants also had to meet the criteria outlined in the boundaries set for the case (see section 3.3.3).

3.4.4.1 Phase Two participants

Phase Two recruited 76 participants of which 50 worked in QLD and 26 in NSW. There was a significant difference in the number of participants recruited in QLD to NSW and whilst it cannot be confirmed; this may be due to the vast difference in the size of States with QLD being 930,006km² larger than NSW (Australian Government Geoscience Australia, 2004). With this increase in size comes an increase in facilities and Registered Nurses. One participant did not meet the criteria of being a Registered Nurse and was an Endorsed Enrolled Nurse (EEN) working in NSW, as such her data was removed from the study leaving a final participant number of 75 (table 3.3). Of the 75 participants 12% (n=9) were male and 88% (n=66) were female. Specific Phase Two participant details are discussed in Chapter Five.

Table 3.3 Age and State distribution of Phase Two participants

State	Male	Female	Total
QLD	7 (14%)	43 (86%)	50 (67%)
NSW	2 (8%)	23 (92%)	25 (33%)
Total	9 (12%)	66 (88%)	75 (100%)

3.4.4.2 Phase Three participants

Following completion of the Phase Two questionnaire 44 (59%) participants went on to agree to participate in Phase Three of the study; a semi-structured interview. Of those 44, the final participants for Phase Three were purposefully selected on the basis of their workplace geographical classification using the ASGC-RA (2006) classification system (ABS, 2014) as well as the type of facility in which the participant worked. This was to provide the researcher with the greatest variance in responses thus increasing internal validity and addressing rival explanations. Of the final 20 Phase Three participants (table 3.4), 12 (60%) worked in QLD and eight (40%) worked in NSW. Once again, this varied response in recruitment may be due to the differing size of the two states.

Table 3.4 Age, State and geographical classification of Phase Three participants

Gender & Geographical classification	QLD	NSW	Total
Male	1 (8%)	1 (12%)	2 (10%)
Female	11 (92%)	7 (88%)	18 (90%)
RA3	3 (15%)	5 (62.5%)	8 (40%)
RA4	4 (20%)	1 (12.5%)	5 (25%)
RA5	5 (25%)	2 (25%)	7 (35%)

3.5 Data collection and analysis

During the design phase it was important that the researcher determined approaches to data collection and the associated analytic techniques (Yin, 2009). This was achieved by linking the propositions already laid out (table 3.1) to the data collection options. The relevant analytic techniques (Yin, 2009) are discussed below in section 3.5.2 and further in relation to the data in Chapter Four, Five and Six.

The nature of case study does not allow for a formal protocol to be adhered to when undertaking data collection except for the first phase of data collection (Yin, 2009). As such as the data was collected and analysed, questions were raised, and subsequent additional data was then obtained. These changes were updated on the case study protocol in line with Yin's (2014) tactic for testing the overall reliability of the study.

3.5.1 Data collection

3.5.1.1 Phase One – document review

Yin (2014) asserts that every case study has some relevant documentation associated with it and as such should form part of the data collection strategy. The advantages of using documentation as a data set is that the documents already exist as part of the research setting and the researcher has no control over the content presented in these documents. Additionally, using documents does not alter the setting in ways that the presence of a researcher might (Merriam, 2002). In addition, they are easily accessible and a ready-made data source (Merriam, 2015).

Phase One document analysis delivered a stimulus for further inquiry in Phase Two and Three (Yin, 2014; Patton 2002). Phase One also gave the researcher a stronger understanding of the social and political context of the phenomenon under investigation. The documents collected and analysed within the Phase One data set were first obtained at the start of the study in 2014. After the initial document analysis further searches and

subsequent analysis continued during Phase Two and Three in order that new published documents could be included in the study. This ensured that the phenomenon under investigation was analysed in light of current legislation and policy. The documents in this data set were dated between 2006 and 2016 and were collected across two years which led to a prolonged process of data collection thus increasing the credibility of the study (Lincoln & Guba, 1985). Ethical approval was not required for this data set due to all documents being readily available in the public domain, however the researcher did have this confirmed by a HREC prior to beginning the search.

In deciding which documents needed to be reviewed, the researcher focused on the research questions and subsequent theoretical propositions. Both the researcher's knowledge and the literature review influenced the search criteria for Phase One documents. Key areas from the literature review that influenced which documents were reviewed included:

- The nurse as a regulated professional;
- the rural and remote context as a basis for the study and;
- the preparation for clinical practice of the RN working within this context.

A search was then undertaken to find key documents to be reviewed and aligned to each of the propositions. In addition, the researcher undertook a review of the documents' references to identify any further documents that may have been important and missed on the initial searches. This mapping proved useful in maintaining the chain of evidence (Yin, 2014) contributing to rigour of the study but also for the researcher to see which of the theoretical propositions were not being addressed during Phase One and would need to be taken forward to Phase Two. Table 3.5 illustrates the mapping of research questions, propositions and documents that were reviewed. Within the mapping, three key data collection units (Yin 2016) emerged in which documents could be placed for analysis, which were grouped as:

- professional standards, codes and guidelines;
- context specific documents; and
- curriculum documents.

Table 3.5 Mapping of research questions, theoretical propositions and Phase One documents

Research question	Proposition	Areas to focus on	Documents for review
What are the roles and responsibilities of the RN working within rural and remote areas of Australia?	There are a variety of roles and responsibilities held between nurses working in rural and remote areas of Australia.	Professional requirements e.g. standards, codes, guidelines.	RN Standards for Practice CRANA remote standards for practice Codes of Conduct and Ethics
How do rural and remote nurses work within their registered scope of practice?	There are some roles and responsibilities of the rural and remote RN that are an extension of their practice and indicate a level of advanced practice. There are a number of organisational concerns regarding the scope of practice of registered nurses working in rural and remote areas [including patient safety, workforce planning, recruitment and retention].	Professional boundaries, scope of practice, decision making, advanced nursing practice.	RN Standards for Practice Decision-making frameworks NP Standards for Practice Professional codes for advanced practice Workforce initiatives Incentive packages Support e.g. Telehealth, TEMSU, Manuals Literature (chapter 2)
How do RNs prepare for practice in order to fulfil their roles and responsibilities in rural and remote Australia?	There is international variation of advanced level practice and preparation for it. There is a variation amongst rural and remote RNs as to the amount and level of	How is advanced level practice defined globally, how does the Australian curriculum differ from international curricula? CPD requirements nationally, additional professional	Literature (chapter 2) Australian advanced practice programmes e.g. Cert/Dip advanced practice (Rural and remote)

	CPD/preparation for practice in the rural and remote area. The RN working in rural and remote areas require advanced level thinking and practice to fulfil their roles and responsibilities. There are a number of existing programmes available to prepare the RN for advanced level practice.	development offered through incentive packages, types of CPD offered. How is advanced practice defined in Australia? How is advanced level thinking achieved? What accredited programmes are offered in NSW and QLD?	CPD guidance Incentive packages CPD opportunities e.g. CRANA Organisational preparation for practice Curriculum documents
Why and to what extent are eco-social influences so important to the scope of nursing practice in rural and remote Australia?	Economic factors in the community will determine some of the clinical issues nurses will be exposed to and/or required to manage and treat. Examples may include; agriculture, mining, availability of human and material resources and economic issues such as political elections that may take place during the time of the study.	How does the context affect practice?	Contextual competencies Remote standards for practice Curriculum documents CPD Literature (Chapter 2)
How do rural and remote nurses overcome barriers to sustain motivation and address challenges in providing effective health care provision?	Rural and remote nurses can face a number of challenges which can have an effect on their practice. Rural and remote nurses use their networks across locations to gain support and information to provide effective health care.	What are the restrictions in relation to CPD and how do these affect practice? What are the support systems available to RNs in practice?	Professional requirements for CPD RN Standards for Practice CRANA remote standards for practice Support e.g. Telehealth, TEMSU, Manuals

Professional standards, codes & guidelines **Context specific documents** **Curriculum documents**

In deciding whether or not a document would undergo full content analysis (see section 3.5.2.1) the researcher had a number of criteria which she assessed each document against. These criteria included that the document was:

- written in English;
- published within the last ten years;
- related only to national registration and continuing registration of Registered Nurses in Australia (documents were not included that related to other nursing roles or other health care practitioners);
- if a specific state or territory government document was included, that this document was specific to NSW or QLD only; and
- only those documents which referred to rural and remote Australia were included (not metropolitan or urban-focused).

These boundaries (criteria) were important to ensure that only contemporary documents were included in the data collection and analysis of Phase One. In remaining within the boundaries of the case, the researcher focused on the two States under investigation; QLD and NSW, however, as rural and remote health is governed by federal funding and policy some additional documents such as the National Strategic Framework for Rural and Remote Health (Rural Health Standing Committee, 2011) were also reviewed.

Many documents were reviewed during Phase One to ensure that they remain contemporary and congruent with the legislative requirements that govern nursing practice (NMBA, 2016). Several of the documents reviewed and referred to in this thesis were updated during this study and after completing Phase One, and therefore had to be analysed again (Code of Conduct for Nurses (NMBA, 2018) replaced the Code of Professional Conduct and Code of Ethics for Nurses). Table 4.1 in Chapter Four outlines the documents analysed in Phase One.

3.5.1.2 Phase Two – Online questionnaire

Following analysis of Phase One, the researcher mapped what she now knew in relation to the theoretical propositions and what she still needed to know (Table 4.7). This provided a chain of evidence linking the two phases together in building up multiple data sets to converge and make sense of the phenomenon. In considering Phase Two the researcher wanted to gain data direct from RNs working within the rural and remote setting. In line with the maximum variation sampling method to ensure good geographical representation, the researcher firstly wanted to gain an understanding of the experiences of RNs in the study area. As such, the researcher decided that an online questionnaire would be the most appropriate data collection method for Phase Two.

Section 3.5.1.1 demonstrated how Phase One met the requirements for case study in that the approach must be one that the researcher has little or no control over. Like Phase One, Phase Two also met these criteria. Phase Two of the study comprised an online questionnaire using the university Survey Monkey™ platform. Through using Survey Monkey™ the questionnaire could be directly embedded into the researcher's study website. Yin (2014) supports the use of questionnaires as a data collection method in gaining answers to the types of secondary research questions posed in this study. The aim of the questionnaire was to reach as many RNs as possible working in rural and remote locations, hence the online medium was used. Whilst the online medium has many benefits in relation to speed of distribution and data collection, it does have the potential to produce poor returns due to the participants' computer access and skills (Braun and Clarke, 2013). The researcher envisaged that participants' computer literacy would be adequate due to the level of computer literacy required within their role as RNs.

The questions that comprised the questionnaire were constructed at the end of Phase One (Table 5.1 in Chapter Five). Alongside each research question and associated theoretical proposition, the researcher identified areas in which information had not been gleaned and

the areas which warranted further exploration in the context of individual participants' experiences.

A total of 10 multiple choice questions and 14 qualitative open-ended questions were included in the questionnaire (Appendix D). Questions included demographic information, workplace postcode (to determine if maximum variation sampling was efficient and resulting in sound representation), type of employing facility, distance from a tertiary referral centre and their role title. This level of detail enabled the researcher to select participants via maximum variation sampling for Phase Three of the research. Participants were asked not to identify the facility by name for confidentiality.

The last question asked participants if they would be willing to participate in a future interview. If participants ticked yes, they were directed to a participant information sheet and a form to leave their contact details.

In formulating the questionnaire, the researcher was mindful that the context, that is so important in case study research, remained the focus of the questionnaire. With questionnaires there is the risk that too many questions can be posed, and participants may either choose not to begin the questionnaire or not to complete it in its entirety. The length of questionnaires have been studied in relation to response rates and have been linked with the topic and degree of interest to the participant (Oppenheim, 1992). Through information presented on the website the researcher ensured that the significance of the study was evident to participants, however, she also ensured that the questionnaire was brief enough to encourage completion but sufficiently comprehensive to facilitate the collection of data related to the secondary research questions and theoretical propositions.

3.5.1.3 Phase Two pilot study

Yin (2003, 2011) emphasises the importance of pilot studies to review whether the questions were interpreted correctly (Braun and Clarke, 2013). When analysing the pilot,

the researcher looked for questions that were not answered, or, in the qualitative section, the questions that were misinterpreted by the participants, providing unintended data. Once these questions were identified, the researcher was able to refine the questionnaire. The pilot study began following ethics approval. The questionnaire and link to the study website was sent to eight reviewers made up of nurses, academics and researchers. One of the nurses worked in remote locations in Western Australia and one reviewer used English as a second language. Reviewers were asked to comment on the following aspects, including:

- the amount of time it took to complete the questionnaire;
- whether there were any questions that were unclear or confusing in the way that they were worded;
- whether the reviewers encountered any IT difficulties;
- whether the flow of questions was appropriate; and
- whether there were any major areas missing (based on the aims of the research study).

The reviewer with English as a second language reported having to read two of the questions twice before answering them. However, upon reading them the second time, this person reported being certain of what the question was asking. The researcher was unable to find any statistics as to the number of nurses in Australia with English as a second language so on the basis that the participant did understand the question on the second time of reading it and that the same feedback was not received from the other seven reviewers, it was decided that this question would be left as it was originally written. The remaining feedback was positive; the questionnaire was reported to have a logical flow with all areas covered in line with the aims of the study. The researcher could see from the Survey Monkey™ submissions that all participants had completed the questionnaire within 15 minutes. Feedback from the pilot study indicated that all aspects

of the survey were appropriate, and responses gave the researcher the type of data which reflected the intent of the question.

3.5.1.4 Phase Three – semi-structured interviews

Yin (2014) purports that the use of interviews is an essential component of case study research. The researcher wanted to understand the experiences of participants nursing in rural and remote areas of NSW and QLD, and the meanings that participants attached to them (Seidman, 2006). The use of the semi-structured exploratory interview gained these valuable perspectives (Yin, 2011).

Semi-structured interviews are commonly used in qualitative research (Patton, 2002) and enabled the researcher to gain a greater breadth of data (Fontana & Frey, 2000). Unlike Phase One and Two of the study, Phase Three provided the opportunity for the researcher to delve deeper into participants' responses, enabling her to understand the participants' experiences of the phenomenon. In keeping with the paradigm of social constructivism, the researcher was able to extend understanding of the phenomenon and further contribute towards the construction of ideas.

Within the research protocol, the semi-structured interview including a few key questions were designed to focus the inquiry using the research questions. Additional questions were used to gain clarity or more detail (Braun & Clarke 2013; Merriam 2002; Patton 2002; Guba & Lincoln, 1989). By using a semi-structured approach, a conversational style could be used (Yin, 2011) with the participant driving the interview (Lincoln & Guba, 1985). In line with social constructivism, this flexible approach enabled the researcher to gain rich, detailed and unanticipated data (Braun & Clarke, 2013) from the interviews which enabled the researcher to look at the complexity of views (Merriam, 2015).

In line with Yin's principles and the developing chain of evidence the researcher based the interview questions on the mapping undertaken at the end of Phase Two. The researcher

combined the findings from Phase Two and Phase One to ascertain what was now known and what remained unknown and questions were assigned to research questions and theoretical propositions. This mapping is discussed in Chapter Five and can be seen in Table 5.1 of the same chapter.

The semi-structured interview consisted predominantly of open-ended questions which allowed the participant free expression and description of their experiences (Hutchinson & Wilson, 1994). Whilst remaining within the framework of the interview guide, questions did change as the interviews progressed to include certain recurring themes or topics that participants were spontaneously speaking about as they answered other questions and during their descriptions of their experiences of nursing. Throughout each interview the researcher considered which questions she would ask next and made notes of interesting points or areas to come back to, as well as listening carefully to responses, a practice supported within the literature (Patton, 2002; Hutchinson & Wilson, 1994). This provided the researcher with opportunities to test rival explanations as related to the findings from previous phases (Yin, 2014).

Due to the geographical locations of the participants all of the interviews were carried out over the telephone and audio recorded using a digital recorder to ensure accuracy of the transcript (Yin, 2014). Participants were also offered the opportunity to use Skype, but none chose this medium. The benefit of using telephone interviews for this study was that the researcher was able to access participants that she would not have been able to interview had the face-to-face medium been used; this enabled a more diverse sample to be reached, enhancing the external validity of the study. Some of the participants raised concerns regarding their workplaces and their practices and these experiences may not have been discussed had the interview been face-to-face and potentially been held in the participants place of work.

At the beginning of each interview, the researcher read out to participants the same information regarding the structure of the interview and how the data would be managed prior to beginning any questioning. Participants were thanked for agreeing to participate, they were reminded that the interview would be audio recorded and that it would be the researcher only that would be transcribing the interviews and that this would be done within 48 hours. During the transcription process, all transcripts would be anonymised by removing any names of locations or facilities aside from State names or major cities and names would be replaced with the code that was assigned to the participant during Phase Two. Participants were told how the interview would be structured, with key questions and then additional questions being asked in relation to their responses in order that the researcher could gain greater clarity or depth to their experiences and comments. A reminder was given that the interview could be stopped at any time, questions could be bypassed or returned to at a later point in the interview. This was important from an ethical stance to allow participants to feel comfortable with their participation and not pressurised.

In addition, it was important to the researcher that participants' responses were as open and honest as possible as there is always a risk of biases when using interviews, in that participants may respond with what they consider the interviewer wants to hear (Oppenheim, 1992). By paying attention to and reflecting on her interpersonal skills and debriefing with the Principal Supervisor, the researcher continued to improve her interview skills, subsequently promoting open and honest dialogue with participants. This resulted in achieving rich data about their experiences of working in rural and remote Australia. Additionally, participants were given the opportunity to ask any questions that they may have had prior to commencement of the interview.

A total of 20 interviews were carried out during Phase Three of the study, with a total interview time of 21 hours and 36 minutes. Interviews ranged in time between 45 minutes and one hour 39 minutes with a mean time of one hour and four minutes.

3.5.1.5 Phase Three pilot study

Once again, the researcher undertook a pilot study to confirm that the questions to be asked would be interpreted correctly by the interviewee and that responses would fit with the aims of the study (Seidman, 2006). In addition, the pilot work gave the researcher an approximate time that interviews would last and an opportunity to refine interviewing and transcription skills prior to the main study. Once ethical approval was received the pilot study commenced.

The pilot study consisted of three interviews being carried out; two over the phone and one via Skype. All pilot participants were nurses by background but only two had rural or remote experience. The interviews ranged from 29 to 52 minutes, with a mean length of time of 43 minutes which fitted well with the original estimation of interviews anticipated to last approximately 60 minutes. Following the pilot study, the researcher changed the wording of one question to make it clearer as two out of the three pilot participants asked the researcher to repeat the question. Patton (2002) wrote that researchers have a responsibility to pose clearly worded questions in order that a positive rapport is established. If questions are unclear participants may feel confused or uncomfortable. The researcher also changed the sequence of some of the questions to give the interview a more comprehensive and logical flow.

During the pilot study the researcher was able to see how different questions could be linked, and improved on her ability to ask further probing questions to gain greater depth but to avoid leading participants in any way and remain neutral (Yin, 2011; Patton, 2002). Transcription took on average five hours for every one hour of audio and during the transcription phase of the pilot study the researcher considered paying for external transcription services. However, the benefits of being deeply immersed in the data during transcription far outweighed the time saving that would be gained through using professional transcription services (Braun & Clarke, 2006; Bird, 2005). Following the three

pilot interviews the researcher felt sufficiently confident to begin Phase Three data collection with study participants.

3.5.2 Analytical techniques

There are four key strategies for interpreting data that Yin (2014) delineates; using appropriate methods and analysis techniques, developing case descriptions, turning to the theoretical proposition and examining rival explanations.

First, Yin (2011) suggested a five-phased cycle for qualitative data analysis. This includes compiling (interview and any field notes made by the researcher); disassembling (breaking down the complied data into codes; then reassembled (clustering codes into themes); and the fourth phase is further reassembling into a narrative (interpreting) with tables and graphs to assist displaying the information. The fifth phase is referred to as concluding (the conclusions of the fourth phase which is then extended to conclusions drawn from all data collection throughout the entire study). Further explanation of how qualitative data was analysed can be found in section 3.5.2.1 and 3.5.2.2.

An important part of case study research is to describe the case. As previously mentioned, the theoretical propositions are an essential component to case study research according to Yin, and therefore, qualitative data should also be analysed with the thought of confirming propositions. Alternatively, the theoretical propositions are not confirmed as a rival explanation is identified. Rival explanations were considered as early as the design phase of the study (Yin, 2009; Rowley, 2002). Rival explanations are either embedded within the research process itself, such as researcher bias or can look at other explanations for the results that have been obtained, such as contextual factors. Such contextual factors could be something as simple as a change in manager at a facility during the time of the study. It was important that these rival explanations were considered in the design phase as well as throughout the study and during analysis for each phase. Each

possible rival explanation was explored in detail (Rowley, 2002). Chapters Four to Six will discuss the individual analytical strategies undertaken for each phase of the study.

When considering the analysis of data Yin (2014) refers to flexibility in choosing an appropriate tool for the data collected and subsequently data analysed. Thus, the researcher decided that for Phases One and Two, content analysis would be the tool of choice and for Phase Three the work of Yin (2011) supported by Braun & Clarke's framework (2006) would be used to aid thematic analysis of the data obtained. Table 3.6 outlines the phases of data collection as they relate to the research questions and the chosen analytical techniques.

Table 3.6 Phases of data collection and analytical techniques

Phase	Research Question(s)	Data Collection	Analytical Techniques
One	1 and 2	**Document review:** Review of National and State policy documents regarding professional nursing practice, rural and remote nursing and the rural and remote context. Review of curriculum documents for all related rural and remote nursing or Nurse Practitioner programs delivered in NSW and QLD.	Content analysis.
Two	1, 2, 3, 4 & 5	**Prospective online questionnaire:** Questionnaire administered in NSW and QLD to all RNs working in rural and remote areas regarding typical variables found in the literature regarding the practice of RNs in such areas and the associated preparation for practice.	Content analysis.
Three	1, 2, 3, 4 & 5	**Semi-structured interviews:** Voice recorded semi-structured interviews carried out over the telephone. The aim was to further elaborate on questionnaire responses to gain a greater in-depth understanding of working in rural and remote areas of NSW and QLD.	Thematic analysis.

3.5.2.1 Content analysis

Content analysis is a process by which textual data is arranged into similar categories, consistent patterns are identified and inferences about relationships between concepts are made (Julien 2008; Krippendorff, 2004). Content analysis is a useful research tool in that it can process large amounts of textual data and is flexible.

Content analysis was chosen as a method for analysing both the content of Phase One documents and also the open-ended questions within Phase Two, the online questionnaire.

The analysis of the Phase One data consisted of five steps (figure 3.4). All documents were read and placed into one of three data collection units (professional standards, codes and guidelines, context specific documents and curriculum documents) depending on the type of document, the target audience and the documents' purpose. Documents were then analysed one unit at a time with each document re-read and any interesting comments or feelings evoked by the researcher noted in the documents margin. Some of the documents' content was not relevant to the study and as such was removed from the data and not included within the content analysis. Significant meaning units were created and underlined on each document. A meaning unit was a smaller section of the whole text. The third step was for the researcher to code the meaning texts with colour assigned to each different code. A list of codes by colour and name were generated and added to as the analysis progressed. Once all of the documents within the data collection unit were completed, the fourth step taken was to categorise the codes, joining together similar codes into what the researcher named 'major areas'. Alongside major areas were sub-areas, and these were illustrated on a mind map created by the researcher to identify important links between the areas. Major areas were discussed with the researcher's supervisor to check for accuracy which increased the construct validity and credibility of the overall study The final step in the analysis was for the researcher to undertake a check to ensure that she had not missed any significant areas of text and for confirmation that her chosen major areas were indeed the focus of the documents. In doing this, the researcher ran several text queries as well as measures of textual expression through NVivo (Bird, 2005; Krippendorf 2004). Lofland, Snow, Anderson and Lofland (2006) support the use of text 'counts' to keep the researcher analytically honest, providing true

frequencies of codes rather than the researcher's bias to particular subjects in assuming they are important.

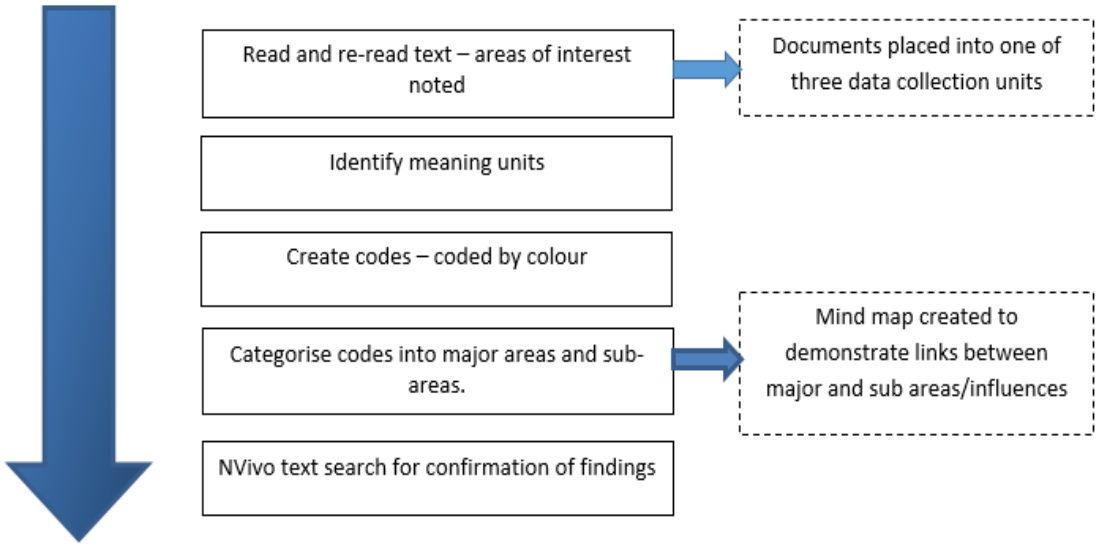


Figure 3.4 Process for content analysis of Phase One data

The analysis of the Phase Two data consisted of a number of steps which enabled the researcher to firstly undertake a broad analysis in which she remained close to the words of the text, establishing what participants had said, and then progressed to a deeper analysis in which higher levels of abstraction were used to identify the underlying meaning of the text. Researchers have termed these two ends of content analysis as *'manifest analysis'* and *'latent analysis'* (Erlingsson and Brysiewicz, 2017; Bengtsson, 2016). Whilst several steps were undertaken, the analysis of this qualitative data was a reflective experience and as such the researcher did go back and forth throughout steps at times. Figure 3.5 illustrates the process undertaken by the researcher.

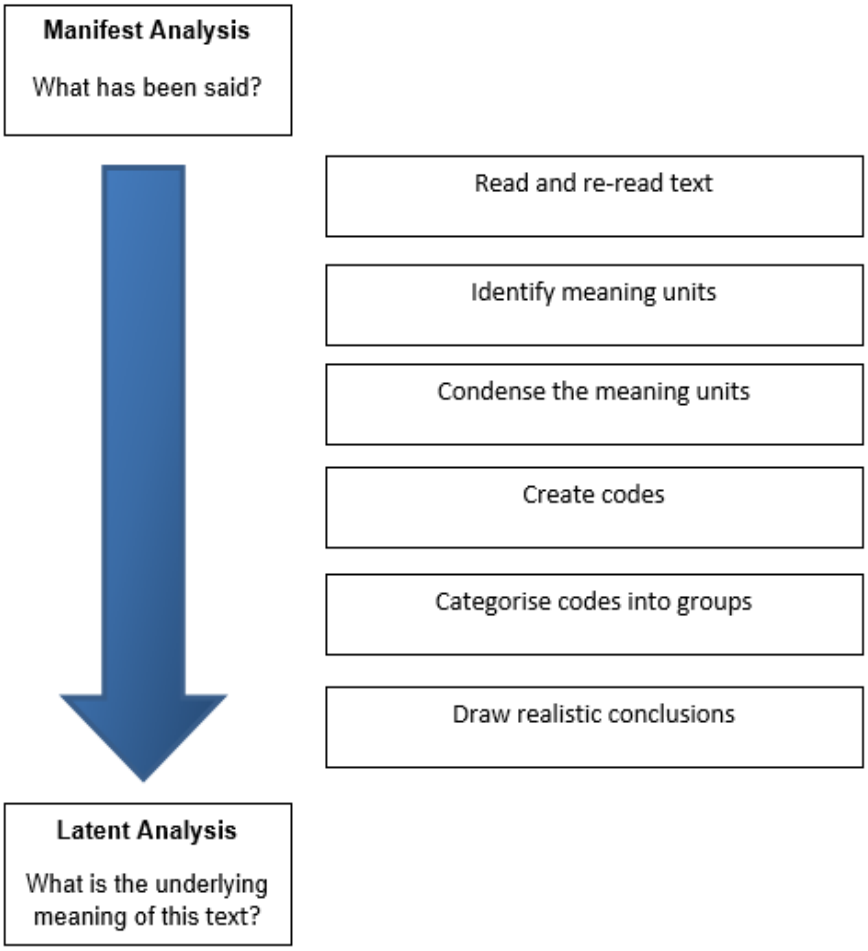


Figure 3.5 Process for content analysis of Phase Two data

Adapted from "A hands-on guide to doing content analysis," by C. Erlingsson and P. Brysiewicz, 2017, *African Journal of Emergency Medicine* 7 p.94. and "How to perform a qualitative study using content analysis," by M. Bengtsson, 2016, *NursingPlus Open* 2, p.9.

The first three steps were considered the latent analysis. The researcher first read and re-read all of the participant's responses to obtain a feel for the data and noting any interesting points or feelings that she had whilst reading. Once she felt confident with the general content of the data the researcher then selected meaning units from within the text. Each meaning unit was copied and pasted to a table. The meaning units were then taken in step three and condensed by taking away any unnecessary words and inserted into the next column on the table. Researchers are cautioned during this process that the core meaning

of the unit must still be retained (Goldberg and Allen, 2015) and it is possible that a meaning unit cannot be condensed further in this stage without losing its meaning and so should be left as a meaning unit (Erlingsson and Brysiewicz, 2017). At this stage of the content analysis some researchers (Bengtsson 2016) purport that the *'dross'* (data that is considered to be off topic) should be excluded, only leaving data that directly links to the research questions. However, in line with Yin (2014) and also social constructivism, the context must be retained when analysing data in case study research. Thus, whilst some of the content leading into responses may not have seemed relevant to specific questions, often just 'setting the scene', the researcher chose to continue analysis with the inclusion of this data so as to enable her to contextualise the responses.

In step four, the researcher then looked at each of the condensed meaning units and assigned a code to them to describe the essence of what the meaning unit was saying. These codes were then grouped into categories of similar codes. As this was a content analysis and not a thematic analysis, themes were not assigned to the Phase Two data. The categories would provide the researcher with sufficient information to plan Phase Three in line with which theoretical propositions had or had not been addressed. Once again, categories were discussed with the researcher's supervisor to check for accuracy, increasing the construct validity and credibility of the overall study. The final step was for the researcher to draw conclusions from the data. It was important at this stage that the researcher was aware of any of her own biases potentially influencing her interpretation of the data. Throughout the whole study, a researcher journal, described by Yin (2014) as an audit trail, was kept. Decisions, reflections and questions were noted in this journal. The researcher would then question these notes about the data, asking herself; is this my personal view imposed on this data here? Also, what evidence is in the data to confirm this is a suitable category and would this data fit into another category?

Chapter Five (section 5.5) provides an illustration of the process of content analysis undertaken with Phase Two data and will discuss the conclusions that the researcher drew from the data.

3.5.2.2 Thematic analysis

Thematic analysis used for Phase Three and when the data was converged for advanced analysis is a method of *"identifying, analysing and reporting patterns (themes) within data"* (Braun & Clarke, 2006, p.6) providing a rich and comprehensive picture of the phenomenon being studied. For this study the thematic analysis took an inductive approach whereby the data was not coded to fit into a pre-existing theory or coding frame but was driven by the data itself. Braun & Clarke's (2006) framework complemented Yin's approach tor thematic analysis providing the researcher with a clear step by step approach to the analysis of the data. Braun & Clarke (2006) make reference to several terms when describing the analysis of the data which have also been adopted throughout this thesis. As such, each of these terms are defined here for the reader's benefit.

Firstly Braun & Clarke (2006) refer to the *'data corpus'* which refers to the data in its entirety; in this case the data collected throughout all three phases of data collection. The *'data set'* refers to one set of data which can be defined as the type of data, for example all of Phase Two data, or by an area of interest such as all references made to 'autonomy' across all three phases of data collected. A *'data item'* is one particular piece of data e.g. one interview from a particular participant and finally a *'data extract'* is a particular quote from a data item.

The six-staged approach recommended by Braun & Clarke (2006) starting with preliminary analysis through to the writing up of the project, compliments Yin's proposed five-phased approach. Table 3.7 displays the six stages of thematic analysis which the researcher undertook for the analysis of Phase Three data.

Table 3.7 Phases of thematic analysis

Phase Yin	Description of the process	Phase Braun and Clarke	Description of the process used
1.Compiling	Interview notes.	1.Familiarisation with the data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas
2.Disassembling	Breaking down the complied data and creating codes.	2.Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code
3.Reassembling	Creating clusters of similar codes, forming themes.	3.Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme
		4.Reviewing themes	Checking if the themes work in relation to the coded extracts (level 1) and the entire data set (level 2), generating a thematic 'map' of the analysis
4.New narrative	Interpreting.	5.Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme
5.Conclusions	Concluding the qualitative component and then concluding from all data findings.	6.Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis

Note. Adapted from "Using thematic analysis in psychology," by V. Braun and V. Clarke, 2006, *Qualitative Research in Psychology,* 3, p. 35. And "Qualitative research from start to finish" 2nd edn. By R. Yin, 2016, p. 185.

The researcher transcribed each interview herself to ensure her immersion in the data (Braun & Clarke, 2006; Bird, 2005). After each interview had been transcribed the researcher read the transcript alongside the audio to ensure accuracy of transcription and also to begin becoming familiar with the content. Following this check for accuracy each transcript was uploaded to the NVivo project database. The researcher then re-read each transcript and attached memos on key words and interesting comments to capture accurate thoughts and enable the researcher to track and organise data. This early stage in analysis would later enable new dimensions to open up and new ideas or rival explanations to be considered (Yin, 2014; Oppenheim 1992).

The second stage of analysis was to generate some initial (preliminary) themes (NVivo term 'nodes') for the data and as such excerpts from the transcripts were colour coded in NVivo with each possible theme being given a definition. Many excerpts were tagged on to more than one preliminary theme and during this stage of analysis there was a very large number of possible themes generated. At this point it appeared that the 20 interviews and subsequent transcripts obtained would be sufficient for this phase of the research as no new themes were being generated (Given, 2016). Consequently, the interviews were stopped whilst analysis continued. Once all 20 transcripts had been initially analysed, the researcher started searching for themes. During this part of qualitative analysis, potential themes evolved when similar preliminary themes were combined together, and thematic maps were produced. At the end of this point the researcher had generated six major themes.

All of the coded excerpts for each theme were copied and pasted to a new document and re-read in light of the themes. On examination, some of the themes did not have sufficient data to support them as an individual theme, however they fitted as a sub-theme within another major theme. Other themes were combined, for example 'location' and 'support' were combined to form the theme of 'isolation' with the sub-themes of isolation of self,

isolation from colleagues and isolation from services. At the conclusion of her refinement of the themes the researcher had five final themes each with between two and five sub-themes. The second level of analysis at this stage was to re-read all 20 of the transcripts and check to ensure no areas had been missed in the initial analysis of the data. It also allowed the researcher to read the transcripts in light of the five chosen themes and consider whether these themes gave a complete representation of the data. Once the researcher was satisfied that her themes represented the data well, she gave her anonymised data set to her supervisor to independently review and code. The researcher then presented her themes to her supervisor to discuss how accurately she had interpreted the content of the data and to see if anything had been missed from the data set. The themes were agreed as an accurate representation of the data and the researcher progressed on to defining and naming the themes, concluding all findings and producing the report.

Chapter Six presents the final five themes following the Phase Three thematic analysis. Chapter Seven will then discuss the triangulation of these themes across all three phases.

3.6 Ensuring rigour in case study research

The quality of research is judged by its level of rigour. Two frameworks have been used in this study to show that this research was conducted in a rigorous way. First, Yin's approach to rigour will be presented. As discussed in section 3.2.1 Yin's philosophical stance is one of post-positivism and therefore when discussing the level of rigour, he uses positivistic traditional terms like reliability and validity. Yin notes that case study research is part of the larger body of empirical social research and as such the tests for reliability and validity (construct, internal and external) remain relevant in this research. These, he purports, are fundamental to ensuring rigour when using case study research. As the researcher has

adopted Yin's framework for case study research she was guided by these principles and incorporated the 'tactics' Yin refers to in ensuring the rigour of the study.

Table 3.8 outlines each of the four tests, tactics that can be used to ensure each test is met and the phase of research in which the test was applicable. Each of these four tests will be discussed further in relation to how they were addressed within this study.

Table 3.8 Case study tactics for four design tests

Tests	Case study tactic	Stage of research
Construct validity	Use multiple sources of evidence	Data collection
	Establish a chain of evidence	Data collection
	Have key informants review draft case study report	Composition
Internal validity	Pattern matching	Data analysis
	Explanation building	Data analysis
	Address rival explanations	Data analysis
	Use logic models	Data analysis
External validity	Use theory in single-case studies	Research design
	Use replication logic in multiple-case studies	Research design
Reliability	Use a case study protocol	Data collection
	Develop a case study database	Data collection

Note. Retrieved from *Case study research, design and methods* (p. 45), by R. K. Yin, 2014, California: Sage.

3.6.1 Construct validity

Construct validity can be challenging to achieve in case study research (Yin, 2014), however three tactics suggested by Yin (2014) were undertaken in this study to achieve research rigour. The types of strategies used to ensure construct validity included multiple sources of evidence to achieve converging lines of enquiry (or triangulation); chain of evidence; and peer or informant review.

Firstly; multiple sources of evidence enhanced the data credibility (Yin, 2014; Swanborn, 2010; Simons, 2009). Multiple sources of data came from three different data collection phases. The first data sources were documents about policies and legislations (Phase One), an online questionnaire (Phase Two) and a semi-structured interview (Phase Three). Differing data sources means different data collection and analysis, yielding different insights (Rowley, 2002). Therefore, in this study the data gathered from all sources were converged rather than treated individually, with each source comprising one piece of the puzzle and contributing to the researcher's greater understanding of the case (Baxter & Jack, 2008). This is referred to as converging lines of enquiry, a process of triangulation (Yin, 2014; Gillham, 2005; Rowley, 2002; Creswell, 1994) and provides multiple evidence of the same phenomenon across each of the different data sets (Yin, 2014). When using a multiple-case study design, as in this study, it is important that the researcher not only analyses the evidence within each case but also across cases too (data triangulation) and this is evidenced throughout Chapters Five and Six.

The second tactic employed during data collection was to maintain a chain of evidence. As each data set was collected and analysed, further areas appeared that warranted investigation through a different data source. The chain of evidence, if completed well, enables an external observer to trace the origins of any evidence from initial research questions to conclusions, and vice versa (Yin, 2014; Rowley, 2002). If this is achieved the research design will have achieved construct validity, thereby increasing overall quality of

the case study (Yin, 2014). The chain of evidence for this study was contained in the NVivo study database and in the researcher's own reflective journal. The reflective journal enabled the researcher to record questions raised, check for opinions, decisions taken and justifications for such decisions.

The final tactic used in this study to gain construct validity was to implement peer and key informant review both during data collection and analysis as well as the final report. During Phases One and Two a colleague reviewed the anonymised data and then reviewed the researcher's analysis and interpretations. This was undertaken to see if the researcher had identified appropriate aspects of the data and made appropriate interpretations through her analysis. During the third data collection, Phase Three, participants were offered the opportunity to review their interview transcript which one participant did. This was useful in providing clarity within an area of the participant's transcript. Phase Three data was also independently reviewed, through the same process as Phase One and Two where the researcher's final themes was checked for accuracy and any omissions by an independent reviewer. Finally, the full draft of this thesis has also undergone peer review to ensure clarity of the final report and enhance the construct validity of the study in its entirety (Yin, 2014).

3.6.2 Internal validity

As this is a descriptive case study and not one that aims to propose a theory or establish causal relationships, the internal validity test is not applicable according to Yin (2014). However, this study has made inferences as participants were not directly observed within the examples, stories and experiences that they shared through their questionnaire or interview. Therefore, it was important that the researcher took all steps to ensure that the inferences were correct and that there were no other rival explanations (Yin, 2014). The researcher for this study, whilst having extensive experience as a Registered Nurse, Advanced Nurse Practitioner (in the UK) and nursing academic, had no experience of

working in rural and remote Australia. This can be seen as a strength of the study. The researcher was able to maintain objectivity as she was not intimately familiar with rural and remote nursing. Therefore, researcher bias was decreased and in turn increased the internal validity of the study.

Thus, the researcher set out in the design phase of the research to consider whether there were any possible rival explanations and evidence was sought to support or refute these. Through the convergence of multiple sets of data, the researcher was able to look for, and consider potential rival explanations. These rival explanations are discussed in Chapter Five and Six.

3.6.3 External validity

External validity refers to the degree to which results from this study are generalisable. Some of the findings from this study can be generalised nationally as all RNs, regardless of the State or Territory in which they work, have the same national regulatory body. However, the study does have limited generalizability to other States and Territories across Australia as the data was obtained from NSW and QLD only. Remaining States and Territories across Australia have their own policies, practice guidelines and support mechanisms in place which limits the application of these findings to those states not included in the study.

The researcher spent a long time during the research design phase considering the research question and secondary research questions. Yin (2014) purports that without sufficient ‘how’ and ‘why’ questions and collecting additional data, the research is at risk of facing difficulties in achieving analytical generalisations (external validity). As such this study had four of the five secondary research questions being ‘how’ or ‘why’ questions with each question having a variety of theoretical propositions to guide this study. In this way it can be seen that steps to maximise external validity have been taken, despite the limitations in achieving generalizability of the results.

3.6.4 Reliability

The reliability of a study is proven if steps are taken that will enable an independent person to replicate the same case study step by step. A number of tactics were taken to ensure reliability of this study. Firstly, a case study protocol was developed during the research design phase of the study and this protocol was subsequently updated as the study progressed through the various data collection phases. Yin (2014) states that the use of such a protocol is essential in a multiple-case study design such as this. The case study protocol comprised four sections; an overview of the research, the procedures for data collection for each of the three phases, data collection questions to be asked in Phase Two and Three and finally a guide for the final report including considerations for possible research manuscripts (Yin, 2014). By having a clear case study protocol in place an independent researcher would be able to replicate this study with ease thus demonstrating its reliability.

The second tactic employed was the use of a case study database. Baxter and Jack (2008) note that whilst the use of multiple sources of evidence is attractive due to the associated enhanced rigour, researchers can become overwhelmed with the amount of data that they generate. As such Yin (2014) recognises the importance of using a case study database to effectively organise the data. A further advantage to maintaining such a database is that it enables the raw data to be available for independent inspection and enables the researcher to track and organise data (Baxter & Jack, 2008). Four components were used in developing the case study database; the researcher's own notes, documents, tabular materials and narratives (Yin, 2014). The computer program NVivo was utilised in this study to enable the formation of the case study database, this enabled the recording of source details, the time and date of data collection, storage and search capabilities.

In addition to, and alongside the case study database, the researcher also used reflexivity through a research journal. The researcher's thoughts as to 'what she knew' and 'how she

knew it' (Hertz, 1997) and how the answers to these questions further developed the research were important if in the future a researcher aimed to replicate the study and therefore provide additional evidence for the reliability of this study. The reflexivity also allowed the researcher to consider any of her own biases that she may have held when collecting and analysing the data. By reflecting on her thoughts, she was able to ensure that she did not impart any biases of her own onto the findings

This study was however set within the paradigm of social constructivism and therefore the principles espoused by Guba and Lincoln (1985) in ensuring 'trustworthiness' were also essential in improving the rigour of qualitative research in those relevant phases of data collection and analysis. This was the second approach to ensuring rigorous research was undertaken.

Whilst the work of Guba and Lincoln is now somewhat dated, it is still seen as relevant today (Polit and Beck, 2014; Patton, 2002) and Yin (2014) has also supported the use of tests for trustworthiness of qualitative research. These tests are noted as; credibility, transferability, dependability and confirmability. Table 3.9 delineates each of these tests with the suggested techniques for ensuring trustworthiness and a description as to how these were applied within this research.

Table 3.9 Techniques used for establishing trustworthiness

Test	Technique	Description and *how implemented in this study*
Credibility	Prolonged engagement and persistent observation	Data collection over an extended period of time to gain a full understanding of the phenomenon being investigated. *Data collected over a period of 2 years.*
	Triangulation	Using multiple data sources. *A number of data sources were used; documents, questionnaire data and interview data to create as complete a picture of the phenomenon as possible.*
	Peer debriefing/review and member checking	Checking of information and conclusions drawn between researcher, participant and independent researchers. *Content analysis and thematic analysis was cross checked with independent researchers. Transcripts were offered back to participants for checking following transcription.*
	Negative case analysis	Identification of cases that don't fit with the emerging patterns in the data.
Dependability	Audit trail	A clear trail of all steps taken by the researcher is available which outlines why methodological steps were taken and how findings were ascertained. *A chain of evidence was maintained as well as the case study research protocol. NVivo was used which allowed the researcher to run tests that would not place excessive emphasis on rare findings (Silverman 2010).*
	Reflexivity	A record of the researcher's personal responses, self-awareness and personal interests. *A reflective diary was kept, and memos attached to data with the researcher's reflections recorded.*

Transferability	Detailed description	The research methodology and findings should be documented in enough detail that the reader is able to decide whether they are transferable to a particular setting. *Research protocol and audit trail maintained. Report written up with appropriate quotations.*
Confirmability	Audit trail	As previous (Dependability).
	Reflexivity	As previous (Dependability).

Note. Adapted from *Naturalistic Enquiry* (p. 328), by Y. Lincoln and E. Guba, 1985, Newbury Park: Sage.

3.7 Ethical considerations

The questions and methods used to collect data in qualitative research methods are more intrusive and intimate, which is far more likely to have an impact on and impede on participants' lives (Richards, 2015). As this study included two phases of data collection and analysis which used qualitative research, ethics approval was necessary.

From its inception it was apparent that there were key issues of ethical importance in this study. The first of these was the anonymity of participant's data. Due to the nature of case study research design it was important that the researcher was able to link the participant's different data sources together, thus data was re-identifiable rather than non-identifiable until the end of the study. Secondly, due to the small number of registered nurses working in these areas, caution was needed in ensuring that their identity would not be exposed when writing up this thesis and any subsequent publications.

3.7.1 Consent

Consent was obtained for Phase Two and Three of this study. The study website for Phase Two and the written participant information sheet sent to potential Phase Three participants contained all of the information pertaining to the study (appendix C). This included; the aims, what was required of participants, and how the data would be used and how findings would be disseminated. Participants were informed about how their personal data would be handled at key points in the study. The information sheet provided information on;

- confidentiality (who would have access to the data);
- anonymity (suggesting how they would be referred to when writing up and giving them the opportunity to agree or not to this);
- security;

- publication of the research;
- the lifetime of the data;
- participants' right to withdraw from the study at any time was made clear and that withdrawal would not in any way result in any repercussions with the researcher or Central Queensland University in the future. In addition, it was clearly highlighted that the participant's employment would not be affected in any way;
- researcher's contact details for use if they had further questions or wanted to discuss any elements of the study; and
- the Principal Supervisor's name was also provided as per the university requirement.

Completion of the online questionnaire was taken as informed consent for Phase Two. Phase Three informed consent was obtained via completion of a consent form which was sent to the researcher prior to any arrangements for interview being made. The consent form (Appendix B) listed several key points and in giving their consent to participate in the study the participant was also agreeing to these listed points.

3.7.2 Risks, burdens and benefits

During the planning of this research and the subsequent submission to the ethics committee the main perceived risk noted was possible concerns that participants may have regarding the confidentiality of their information. Some locations had the potential to be identified due to their unique context so it was felt important that, to ensure maximum recruitment, possible participants understood that their contributions would not be shared directly with organisational or managerial staff related to their employment, nor would their confidentiality be breached to anyone else. Participants were assured that their information would be anonymised, and all excerpts would be used carefully to ensure that they were not attributable to any individual or organisation. Particularly, attention was given to those sole practitioners in the very remote areas to avoid any identification. Therefore, not only

were demographic details or names anonymised, but also some information about the particular service and community was redacted to avoid recognition of the participant.

For the researcher to obtain in-depth information from participants during interview it was once again important that participants knew that their contributions would not be provided to their managers and that their job security would not be put at risk. The researcher made it clear during recruitment that the research aimed to explore the participants' roles and responsibilities and their clinical and educational preparation for them and that this was not a measure of their performance. At the start of each interview the researcher reminded the participant that they could stop the interview at any time or decline to answer a particular question. The researcher followed up with each interview participant two to three days after the interview took place to allow them time to consider concerns and questions related to any issues they wanted to discuss after the interview.

Through Phases Two and Three, study participants were provided with the opportunity to explore their current roles and responsibilities, any previous training and consider their skill sets in relation to both their specific role at the present time and advanced level practice. Through reflection on their previous and/or current training and development, participants were able to reaffirm their abilities and consider their own further development needs.

Many nurses appreciated the opportunity to talk to another person; to 'vent' and to some degree debrief; a process which became apparent was lacking in these locations.

3.7.3 Confidentiality

During Phase Two, questionnaires were numerically coded with electronic copies stored in a password protected file on the university network and hard copies in a locked filing cabinet in the locked office only accessible to the researcher. Participants were not asked to disclose where they work, only their workplace postcode. Interviews from Phase Three were digitally voice recorded with all interviews taking place over the telephone.

Recordings were transcribed as soon as possible after the interview and all of the transcription was carried out by the researcher. During the transcription process, any reference made to the participant was replaced with their unique numerical code which matched with their questionnaire code. If reference was made to any facility or location other than a capital city then these were replaced with 'FACILITY' and 'LOCATION' in the transcript. This was felt to be important in protecting the anonymity of nurses who work in facilities or locations that could potentially be identified, particularly those working as sole practitioners. One participant accepted the opportunity to review the transcript prior to it being used in the study. Due to the participant's role and location, a number of statements and examples that they had given during the interview may have identified them if used when writing up the final report. As such some of these were reworded and others the researcher made a note of not to use in the final write up or any subsequent publications.

The audio recordings and electronic transcripts were stored in a password protected file on the university network and where hard copies of transcripts were used these were kept at all times within a locked filing cabinet in the locked office only accessible to the researcher. Completed consent forms were kept in a different secure location from the questionnaires and transcripts.

When viewing the data only the researcher had access to open the files. When there was a need for supervisors to view any of the data, this was only permitted following anonymisation. All of the data was analysed by the researcher and was carried out in Australia. The researcher's Principal Supervisor did view the data as part of the analysis process to check emerging and final themes as a measure of rigour, however, the data was already anonymised.

The steps that were to be taken to ensure confidentiality was maintained were stated in the participant information sheets for Phase Two and Three data collection and formed part of the consent process for both phases.

3.7.4 Phase One ethics

Prior to beginning Phase One data collection the researcher enquired with the Central Queensland University Ethics Committee Chair as to whether ethical approval was required for Phase One of this study. It was confirmed that publicly available documents do not need ethical approval.

3.7.5 Phases Two and Three ethics

An ethics application was submitted to a HREC which was certified by the National Health and Medical Research Councils to undertake multicentre ethical review. As such the ethics committee was able to grant ethical approval for all ten HHSs across QLD and the seven LHDs within NSW (HREC/16/QTHS/159). Ethical approval was received upon minor clarification of why only some of the questionnaire participants would be selected for interview in Phase Three. Reciprocal ethical review was submitted and received shortly after from Central Queensland University HREC (H16/08-242).

The original ethics approval granted was subject to further correspondence prior to commencement of Phase Three data collection. In line with Yin's case study design it was important that the interview questions were not formulated before reviewing the data obtained in previous phases (Yin, 2014). As such, whilst the original application contained the main themes on the basis of the research questions for exploration during the interviews; specific questions were not stated.

The ethics committee were contacted with a request for them to review the interview questions and grant approval for commencement of Phase Three. Approval was granted with no changes necessary by the ethics committee and further reciprocal approval was given by the researcher's university ethics committee.

3.8 Phase Two and Three research governance

Phase Two of the study was a multicentre study and as such applications for site-specific approval (SSA) were submitted to the relevant Research Governance Officers (RGO) at a total of 17 individual organisations. This process of obtaining research governance approval from the 17 areas began whilst the project was under HREC review. Ten of these areas were QLD HHSs and all of the rural and remote health facilities within their jurisdiction and seven were NSW LHDs, again to include all rural and remote health facilities. Due to many sites/facilities being selected as appropriate for the study within each HHS or LHD, discussions were held between the researcher and the RGOs to ascertain whether a single SSA could be submitted to each HHS/LHD which would cover all facilities that the researcher wanted to approach. The majority of the HHSs and LHDs were satisfied with this approach, however others required individual SSAs to be submitted for every facility that had been identified. Where this was the case, a separate agreement was made that meant approval could be given via a single SSA for Phase Two data collection and an amendment would be submitted further on should any of the nurses from within this HHS be selected for Phase Three interview.

One organisation within NSW would not approve the study as the LHD was soon to be undergoing a restructuring within nursing and as such the Acting Executive Director of Nursing felt that this would not be conducive to research outcomes. The researcher also decided to withdraw the SSA at three QLD HHSs, as despite regular communications with the required signatories and verbal support for the study being obtained, the required paperwork from heads of work units was not received. Despite this, participants from two of the three HHSs were recruited through word of mouth about the study and sharing of the study website. Numerous LHDs and HHSs required the researcher to gain approval signatories from heads of work units in each of the separate facilities that would be approached. This was extremely time consuming. The RGO for one NSW LHD was away

and not receiving applications for a substantial amount of time and on the basis of the data coming in from the other organisations across NSW, the researcher decided not to submit an SSA to that organisation on the return of the RGO. All of the remaining organisations gave approval with just one QLD HHS providing approval for Phase Two of the study only. They required confirmed numbers of Phase Three participants before they would give approval for Phase Three.

The research governance process went on for many months due to administration queries such as those discussed above and the Executive Directors of Nursing signing off the study and granting their approval. However; approval was received for Phase Two and Three of this research to be carried out in 12 of the 17 HHSs and LHDs across QLD and NSW.

3.9 Chapter summary

This chapter has provided a discussion as to the chosen research design, Yin's (2014) case study research. Whilst historically Yin's framework can be seen as one within the post-positivism philosophical paradigm, more recent work by Yin (2014) acknowledges the benefits of qualitative research. Additionally, the use of a social constructivist paradigm to underpin the study aligns with the epistemological beliefs of the researcher. Social constructivism has been related to the study throughout and the importance of the social and historical influences on a person's view of reality has been demonstrated to fit well with Yin's view of social and political context of the phenomenon.

The principles according to Yin (2014) for undertaking case study research have been presented and discussed. The methods used throughout the three phases of the study; document analysis, questionnaires and interviews, have been described along with the analytical techniques used. Measures taken to ensure rigour of the study have been

described and the ethical considerations presented. The following three chapters will now present the findings from each individual phase of the study.

CHAPTER 4. PHASE ONE

4.1 Introduction

This chapter is the first of three which presents findings from this study. Phase One findings were gained from publicly available documents about the current social and political context of rural and remote nursing practice in Australia. Additionally, findings of this data analysis provided a stimulus for further inquiry in Phases Two and Three (Yin, 2014).

Documents were purposively selected (inclusion criteria identified in section 3.5.1.1). Description of documents are noted in table 4.2. Documents were sorted into data collection units (three meaningful units) to be analysed (Yin, 2014, 2016). Each unit had a distinct boundary according to purpose and target audience. The three data collection units of documents included:

- **Professional standards, codes and guidelines** – documents guiding professional registered nursing practice. Research questions one to three of this study focused on the roles and responsibilities RNs undertake in their current practice, how they prepare for roles and whether any of these roles are an extension of their practice. As such the standards for practice, codes and guidelines were essential in understanding the principles set by the profession's regulatory body.
- **Context specific documents** - the context aids background knowledge of the case so is applicable to all research questions. Research question four, however, specifically explores contextual and community influences on practice.
- **Curriculum documents** – focused on education and preparation of nurses for practice through courses and training programmes. Research questions three and

five relate to how nurses prepare for their roles and responsibilities and as such, information about education and training opportunities was needed.

This chapter presents findings from the Phase One data analysis (see Chapter Three, section 3.5.2.1 for detail on using content analysis for this phase). A mind map provides links and sub-areas of importance. Cluster tree maps, where applicable, are presented and to confirm findings the researcher ran text queries in NVivo. Additionally, these findings were also reviewed by the Principal Supervisor. The chapter concludes with an overall discussion of data findings across all three units and argues how these findings informed Phase Two of the study (Chapter Five).

Table 4.1 (below) provides the reader with a brief reminder of steps undertaken.

Table 4.1 Stages of document content analysis

1	Read and re-read text – areas of interest noted Documents placed into one of three data collection units
2	Meaning units identified
3	Meaning units coded by colour on document
4	Codes categorised into major areas and sub-areas Mind map created
5	Text and textual expression queries run in NVivo for confirmation of findings

4.2 Aim of Phase One data collection

The aim of Phase One was to determine how documents inform Registered Nurses about practicing in rural and remote areas. Table 4.2 provides information about these documents.

Table 4.2 Documents analysed in Phase One

Document details	Document type	Intended audience	Purpose of document
Australian Commission on Safety and Quality in Health Care. (2012). *National Safety and Quality Health Service Standards.*	Government policy document (Federal)	Health service managers, health care professionals.	Provides national consistent set of measures of safety and quality to be applied in a variety of healthcare settings
Australian Council on Healthcare Standards. (2015). *National safety and quality health service standards program.*	Government policy document, (Federal)	Organisations, executive and clinical nurses.	Provides information and guidance on ten National Safety Quality Health Safety standards essential to improving patient safety and quality of care
Australian Government. (2011). *#au20 National Digital Economy Strategy.*	Government policy document, (Federal)	All healthcare providers require digital technology.	Outlines government vision for digital economies
Australian Nursing Federation [ANF]. (2013). *Guidelines for telehealth online video consultation funded through Medicare.*	Guideline (professional organisation)	RNs and managers.	Enables safe and effective use of telehealth during a telehealth consultation
Australian Nursing Federation. (2013). *Telehealth standards: Registered Nurses.*	Guideline (professional organisation)	RNs and managers.	Standards for practice using telehealth
Barneveld, M., Young, A., and Crosbie, D. (2016). *TEMSU – Our expectations are infinite.*	Website, article	Health care staff and general public.	Information on the TEMSU service

Centre for remote health. (2014). CARPA Standard Treatment Manual.	Manual (State level – NT)	Primary health care practitioners in remote and Indigenous health services in central and northern Australia.	Supports evidence-based practice in remote and Aboriginal and Torres Strait Islander health services. Guides RNs with limited experience for a range of health, social and work conditions unique to the context
Charles Sturt University, http://www.csu.edu.au/	Website	Potential students, managers.	Course information
CRANA*Plus*. (2016). *Professional standards of remote practice: nursing and midwifery.*	Standard (professional organisation)	All nurses and midwives working in remote areas.	Delineates standards guiding remote practice
CRANA*Plus.* (2015). *Pathways to remote professional practice.*	Resource, (professional organisation)	RNs interested in working remotely.	Outlines preparation required prior to working remotely
CRANA*Plus*. (2013). *A clinical governance guide for remote and isolated health services in Australia.*	Guideline, (professional organisation)	RNs working in remote locations. Managers.	Resource focused on clinical governance, why and how it is done
Department of Health. (2016). *National Strategic Framework for Rural and Remote Health.*	Government policy document (Federal)	Everyone involved in planning, funding and delivery of health services in regional, rural and remote areas.	National strategic vision for healthcare in regional, rural and remote Australia
HETI. (2017). http://www.heti.nsw.gov.au/	Website, guidance, (State level - NSW)	All NSW Health employees.	Information regarding education and training available to NSW Health employees.

Malone, G., and Cliffe, C. (2012). *Framework for remote practice*.	Framework/guideline (professional organisation)	All health professionals.	Standards to guide remote practice
National Rural Health Alliance. (2002). Healthy horizons outlook 2003-2007, A framework for improving health of rural, regional and remote Australia.	Policy, framework (National)	All involved in allocation and delivery of health care provision in rural and remote Australia.	Framework for Commonwealth, State and Territory governments to develop strategies and allocate resources to improve the health of those living in rural and remote areas Resource for all concerned with rural, remote health
NMBA. (2016). *Registered Nurse standards for practice.*	Standard (regulatory body)	All RNs.	Minimum standards for RNs
NMBA. (2016). *Registration standard: Continuing professional development.*	Standard (regulatory body)	All RNs.	Minimum CPD requirements for continued registration with the Board
NMBA. (2016). *Safety and quality guidelines for nurse practitioners.*	Guideline (regulatory body)	All registered NPs, educators and employers of NPs.	Outlines scope and context and standards for practice and maintenance required registration as a NP
NMBA. (2014). *Nurse Practitioner standards for practice.*	Standard (regulatory body)	All NPs.	Minimum standards to be met by the NP
NMBA. (2013). *A national framework for development of decision-making tools for nursing and midwifery practice.*	Guideline (regulatory body)	All RNs and organisations employing RNs.	Identify principles for decision-making tools and demonstrate application of such principles to roles of RNs

NMBA. (2013). *Fact sheet on advanced practice nursing.*	Fact sheet (regulatory body)	Applicants for NP endorsement, those providing NP education and employers.	Defines differences between advanced nursing practice and advanced practice nurse.
NMBA. (2011). *Nursing and Midwifery Board registration standard - Endorsement for scheduled medicines registered nurses (rural and isolated practice).*	Standard (regulatory body)	RNs working in rural and remote areas, managers and education providers.	Informs nurses of requirements for endorsement
NMBA. (2010). *A Nurse's Guide to Professional Boundaries.*	Standard (regulatory body)	All RNs.	Principles for safe, professional practice
NMBA. (2008). *Code of Ethics for Nurses in Australia.*	Standard (regulatory body)	All RNs.	Minimum national standards of conduct
NMBA. (2008). *Code of Professional Conduct for Nurses in Australia.*	Standard (regulatory body)	All RNs.	Ethical standards and values of the nursing profession
NMBA. (2006). *National Competency Standards for the Registered Nurse.*	Standard (regulatory body	All RNs.	Core competency standards by which performance is assessed
NSW Agency for Clinical Innovation. (2016). *Rural Adult Emergency Clinical Guidelines.*	Guideline (State level)	RNs working with limited support in rural and remote locations - NSW.	Clinical support for early assessment and management of immediate or imminently life-threatening conditions, to relieve pain and suffering where no medical officers are available
NSW HEALTH. (2016). *Telehealth Framework and Implementation Strategy 2016-2021.*	Policy document, (State level - NSW)	All health care practitioners working in rural and remote areas.	Outlines plans for embedding telehealth in services by 2021

NSW Health. (2012). *Nurse Practitioners in NSW – Guideline for Implementation of Nurse Practitioner Roles – NSW Health.*	Guideline, (State level – NSW)	NPs and organisations.	Guides implementation of NP roles in NSW
NSW Health. (2011). *Guidelines for the Rural and Remote Incentives Scheme.*	Guideline, Information bulletin (State level)	Managers recruiting staff and RNs (State – NSW).	Incentives - recruitment and/or retention strategies
QLD Health. (2017) *Remote Area Nursing Incentive Package (RANIP).*	Guideline, (State level)	Managers recruiting staff and RNs (State – QLD).	Incentives - recruitment and/or retention strategies
QLD Health. (2017). *Rural and Isolated Practice (Scheduled Medicines) Registered Nurse course.*	Website	RNs interested in undertaking the RIPRN endorsement.	Course entry and content information
QLD Health. (2016). *Primary Clinical Care Manual.*	Reference and policy document, (State level – QLD)	RNs working with limited support in rural and remote locations - QLD.	Clinical guidelines and health management protocols for advanced practice such as administration and supply of medications by RIPRN nurses
QLD Mental Health Commission. (2016). *QLD Rural and Remote Mental Health and Wellbeing Action Plan 2016-18.*	Policy document, (State level)	Healthcare practitioners working in rural and remote QLD.	Outlines government responsibilities for improving mental health of QLDers
QLD Health. (2016) *Video teleconferencing program connecting rural and remote services.*	Website (State level)	Health care practitioners and general public.	Information on using TEMSU in QLD
QLD Health. (2014). *Better Health for the Bush: A plan for safe, applicable healthcare for rural and remote QLD.*	Policy document, (State level)	Health care providers working in QLD.	Information on health system innovations and protocols being implemented across QLD
QLD Health. (2014). *QLD rural and remote health service framework.*	Policy document, (State level)	Health service managers.	Defines core characteristics of health care facilities for QLD

QLD University of Technology, https://www.qut.edu.au/ University of Newcastle, https://www.newcastle.edu.au/ University of QLD, https://www.uq.edu.au/ University of Sydney, https://sydney.edu.au/ University of Technology Sydney, https://www.uts.edu.au/	Websites	Potential students, managers.	Course information

4.3 Findings: Data collection Unit One - professional standards, codes and guidelines

The findings of Unit One highlight principles for appropriate practice and behaviour of RNs. Initial and continuing registration as RNs are based on these principles regulated by the Nursing and Midwifery Board of Australia (NMBA) approved standards, codes, guidelines and frameworks for practice (NMBA, 2016a). A breach of these principles may constitute either professional misconduct or unprofessional conduct (NMBA, 2010a).

4.3.1 Registered Nurse Standards for Practice

The seven standards are applicable to the clinical, management, educational, research administrative, advisory and other roles of RNs.

These seven standards include:

- thinking critically and analysing nursing practice;
- engaging in therapeutic and professional relationships;
- maintaining capability for practice;
- conducting comprehensive assessments;
- planning nursing care;
- providing safe, appropriate, responsive, quality nursing practice; and
- evaluating outcomes to inform nursing practice.

These standards are non-contextual, requiring RNs to interpret them within their own work environment and subsequent roles. The standards all relate to one another and are interconnected as depicted in Figure 4.1.

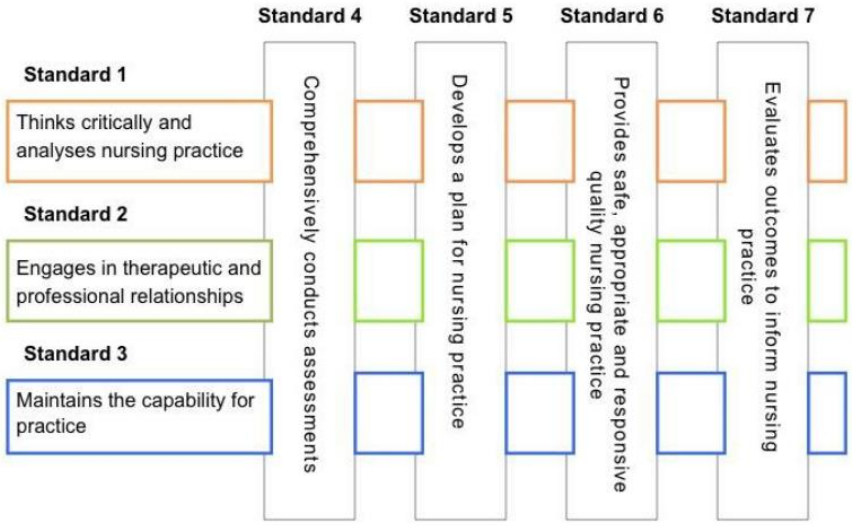


Figure 4.1 Registered Nurse Standards for Practice

From: *Registered Nurse Standards for Practice* (p. 2), by Nursing and Midwifery Board of Australia, (2016a) Melbourne: NMBA.

4.3.2 Nurse Practitioner Standards for Practice

In addition to all Registered Nurses, the Nurse Practitioner (NP) role extends beyond RNs' practice providing high levels of clinically-focused care (NMBA, 2014). As such, NPs must still work to the RN standards for practice (NMBA, 2016a) but they must also meet specific standards for NP practice.

NP standards sit within a framework consisting of four domains; clinical, education, research and leadership, in which the latter three domains are integrated within the clinical role of the NP (Figure 4.2). Each standard has expected attributes for appropriate behaviours demonstrating how a standard may be met by NPs.

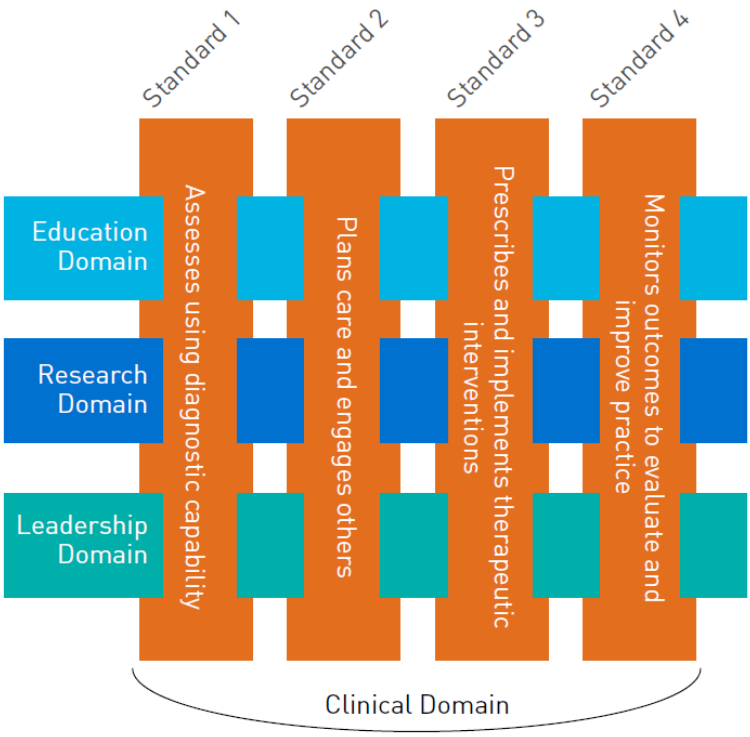


Figure 4.2 Nurse Practitioner standards framework

From: *Nurse Practitioner standards for practice* (p.2), by Nursing and Midwifery Board of Australia, (2014) Melbourne: NMBA.

4.3.3 Council of Remote Area Nurses of Australia (CRANA*Plus*) remote standards for practice

The unique context of rural and remote locations can in some instances lead to some *'poetic license'* when interpreting standards for practice. This is cause for concern for those nurses working in potentially conflicting situations where they are trying to work within RN Standards for Practice but the context of their practice i.e. the situation they are in, requires them to 'stretch' the RN practice.

For those nurses working in remote locations (RA4 and RA5) the Council of Remote Area Nurses of Australia (CRANA*Plus*) professional standards of remote practice for nursing provide additional guidance with regards to consistency and level of practice in these

locations (CRANA*Plus*, 2016). CRANA*Plus* as an organisation, however, is a professional body and not a regulatory body like NMBA. They provide support, networking and education to nurses subscribing to the organisation working in rural and remote areas. As such nurses do not have any professional or legal obligation to work to these standards and they are provided merely as guidance.

There are nine standards to help guide RNs in participating in remote practice. Each standard has sub-standards under areas of knowledge, skills and attitude. Unlike RN and NP Standards for Practice, these standards contain one broad statement under each of these headings, not specific examples of how standards can be met. The claim is RNs are responsible for their practice, knowledge, scope of practice and personal wellbeing. However, it does not guide RNs specifically about how to manage the complexities of rural and remote nursing to ensure accountability is not called into question. Therefore, its usefulness in guiding nurses is uncertain. However, CRANA*Plus* is a national organisation and not State specific so it could be argued that the framework needs to be broad to enable nurses working Australia-wide to integrate it into their practice.

4.3.4 Code of Professional Conduct and Code of Ethics

The documents, the Code of Professional Conduct (NMBA, 2008a) and Code of Ethics (NMBA, 2008b) examined during Phase One are those published in 2013. These data items have since been revised with new publications released in March 2018. The latter publications do not form the basis of the Phase One data collection and analysis as this was undertaken prior to the second publication.

In conjunction with RN Standards for Practice (NMBA, 2016a), the Code of Professional Conduct and Code of Ethics provide RNs with a framework for legally and professional accountable and responsible nursing practice in all domains of their role (NMBA, 2008a, p. 1). These documents together provide a defined scope of practice and uphold the values of the nursing profession. The Code of Conduct is made up of ten statements of conduct

with clear explanations attached to each one (Table 4.3). If a nurse breaches this code, they could be found culpable of professional misconduct or unprofessional conduct.

Table 4.3 Code of Professional Conduct statements

	Conduct statement
1	Nurses practice in a safe and competent manner
2	Nurses practice in accordance with the standards of the profession and broader health system
3	Nurses practice and conduct themselves in accordance with laws relevant to the profession and practice of nursing
4	Nurses respect dignity, culture, ethnicity, values and beliefs of people receiving care and treatment, and of their colleagues
5	Nurses treat personal information obtained in a professional capacity as private and confidential
6	Nurses provide impartial, honest and accurate information in relation to nursing care and health care products
7	Nurses support the health, wellbeing and informed decision making of people requiring or receiving care
8	Nurses promote and preserve trust and privilege inherent in the relationship between nurses and people receiving care
9	Nurses maintain and build on the community's trust and confidence in the nursing profession
10	Nurses practise nursing reflectively and ethically

From. *Code of Professional Conduct for Nurses in Australia* (p.1), by Nursing and Midwifery Board of Australia, 2008, Melbourne: NMBA.

Whilst the Code of Conduct delineates legal and professional standards, the Code of Ethics identifies fundamental ethical standards and values of the profession (NMBA, 2008b). It serves as a useful guide for decision making. Like the Code of Conduct, the

Code of Ethics is made up of value statements (Table 4.4) with accompanying explanations clearly depicting the behaviour expected in meeting the requirements of this code. Explanations are set around four categories; the self (the RN), the health consumer (recipient of care), colleagues, and the community.

Table 4.4 Code of Ethics value statements

	Value statement
1	Nurses value quality nursing care for all people
2	Nurses value respect and kindness for self and others
3	Nurses value diversity of people
4	Nurses value access to quality nursing and health care for all people
5	Nurses value informed decision making
6	Nurses value a culture of safety in nursing and health care
7	Nurses value ethical management of information
8	Nurses value a socially, economically and ecologically sustainable environment promoting health and wellbeing

From. *Code of Ethics for Nurses in Australia* (p.1), by Nursing and Midwifery Board of Australia, 2008, Melbourne: NMBA.

4.3.5 Frameworks for decision making

One concern noted in the literature is rural and remote nurses working outside their scope of practice and level of competency due to the context in which they work. The NMBA have recognised the need for nurses to be supported in their decision-making regarding whether or not to carry out a particular practice where scope or competency could be called into question (NMBA, 20008a, 2016a). This relates to clinical RNs as well as managers making decisions. As such, the national framework for decision making for nursing and midwifery practice was published to provide guidance to RNs and to

organisations to enhance quality and safe nursing care (NMBA, 2007). The framework can be used to examine an organisation, and if necessary, facilitate the approval of a RN to undertake an activity normally performed by another professional (therefore, outside the scope of nursing practice). The guidelines can also be used to introduce new practices safely. The aims of these guidelines for decision making are to undertake everyday practice confidently and competently (NMBA, 2007, p. 5). Examples of how this framework can be applied can be found in sections 4.5.4.4 and 4.7.2.

Four statements of principle should be considered when undertaking a task or implementing a new practice. These are presented below in Table 4.5.

Table 4.5 Statements of principle for decision making

	Statements of principle
1	Primary motivation for any decision about a care activity should be to meet clients' health needs or to enhance health outcomes
2	Nurses are accountable for making professional judgements about when an activity is beyond their own capacity or scope of practice and for initiating consultation with, or referral to, other members of the health care team
3	Registered Nurses are accountable for making decisions about who is the most appropriate person to perform an activity in the nursing care plan
4	Nursing practice decisions are best made in a collaborative context of planning, risk management and evaluation

Note. From *A national framework for the development of decision-making tools for nursing and midwifery practice* (p. 6-7), by Nursing and Midwifery Board of Australia, 2007, Melbourne: NMBA

In analysing the data, a question was raised as to where the boundaries of the nursing profession begin and end. This is particularly important within the context of rural and

remote locations where nurses may be sole practitioners and called upon to undertake aspects of other multidisciplinary roles. There are a number of professional boundaries to be considered when looking at the professional guidance available. These professional boundaries are referred to in the NMBA publication; '*A Nurses Guide to Professional Boundaries'* (NMBA, 2013a). On examining this data item, it became apparent the guidance provided is highly relevant to those nurses working in small rural and remote areas of practice and indeed the data refers to such nurses in relation to how RNs should act when living and working in small communities. Whilst this data item has a primary focus on the power balance between nurse and patient, it also looks at the therapeutic relationship between the two. Additionally, the decision-making flowchart within this document makes reference to scope of practice, including undertaking other roles.

On examination of this data, issues of professional boundaries in the rural and remote context appear complex particularly for sole practitioners. It was therefore noted in the audit trail of this case study that this area warranted further investigation in Phase Two of the study.

4.3.6 Advanced Nursing Practice and Nurse Practitioners

Advanced nursing practice is viewed as a level of practice or expertise within their scope of practice as RNs (NMBA, 2013b) (see Chapter Two for a definition of advanced nursing practice). Benner (1984) argued that RNs begin practicing at novice level but as their career progresses and they are exposed to more situations in which they increase their knowledge and skills, utilise research and draw on leadership skills, they progress through a trajectory to becoming expert practitioners. The NMBA (2016b) in their fact sheet on advanced nursing practice and specialty areas within nursing, delineates what advanced nursing practice is; however, it does not provide examples of what constitutes a level of advanced nursing practice nor does it provide any guidance on length of time or experience in reaching a level of advanced nursing practice. In the literature clear links

about the nature of the role of RNs working in rural and remote locations and working at an advanced level are present. However new graduates also work in these areas. What roles and responsibilities constitute advanced nursing practice, how are they achieved and where does experience fit in? At this point of this case study, these questions were not answered.

The role of NPs sits under advanced practice nursing (NMBA, 2016b), clearly defined as a specific role which must be endorsed in legislation following a required level of education. As seen previously, the role of NPs has additional standards for practice (NMBA, 2014) and guidelines to aid competent and safe practice (NMBA, 2016c) within the expanded scope for RNs. Four domains within the standards (clinical, education, research and leadership) fit well into the framework of Hamric, Spross and Hanson's (2008) in which these four domains also feature (direct clinical practice, expert coaching and advice, consultation, research skills, clinical and professional leadership, collaboration and ethical decision-making).

4.3.7 Continuing Professional Development (CPD)

Regulatory bodies require RNs to maintain capability to practice (NMBA, 2016a; standard for practice 3). The third research question for the study asks how nurses prepare for their practice. Theoretical propositions assigned to this question proposes a variation amongst rural and remote nurses as to the amount and type of CPD and preparation for practice in rural and remote areas. In this phase, it was important to establish what the regulatory expectations were for the amount and type of CPD activities. This data could be used as a benchmark for Phase Two findings as to what nurses were actually undertaking.

The NMBA clearly states in all policies, standards and guidelines that nurses are accountable to maintain their competence to practice within their scope (NMBA, 2007, 2014, 2016a, 2016b, 2016e). Re-registration each year is dependent on RNs showing currency and competence to practice. To achieve this, nurses must meet the continuing

professional development standard (NMBA, 2016d). Every nurse is required by the NMBA when re-registering with the Australian Health Practitioner Regulation Agency (AHPRA) to undertake a minimum of 20 hours of CPD activity each year (pro rata) and this activity should be recorded in a portfolio or record held by the nurse. This CPD can comprise any educational activity in which nurses are developing knowledge or skills. Acceptable activities can include but are not limited to postgraduate studies, attending in-service, participation in a journal club, reflective activities, writing for publication or attending conferences.

There are additional CPD requirements for those with endorsements on their registration such as NPs who have to undertake a further ten hours relating specifically to prescribing and administration of medicines, diagnostic investigations, consultation and referral (NMBA, 2016e, p.2). Registered nurses with scheduled medicines endorsements also have an additional ten hours to complete specifically related to obtaining, supplying and administration of scheduled medicines (NMBA, 2016e, p. 2).

The amount of time and money allocated to individuals to undertake CPD requirements is decided at an organisational level and depends on the nurse's role and location. Organisations are not obliged to give employees time and financial support to complete their CPD, however, when it comes to recruitment and retention of staff, this support is recognised as attractive (Department of Health [DoH], 2016a). Organisations are, however, obliged to ensure all staff are meeting required mandatory training such as manual handling, basic life support and fire training.

4.4 Overview and key aspects of data collection Unit One analysis

To represent findings of Unit One, a mind map of key areas identified was created (Figure 4.3). The main topics are presented as dark blue circles (support, role, context and CPD). Sub-areas which link to and influence key topics are represented in squares with interconnecting lines to demonstrate their connections with major topics.

Figure 4.3 depicts the mind map for the first content analysis of this unit; standards, codes and guidelines.

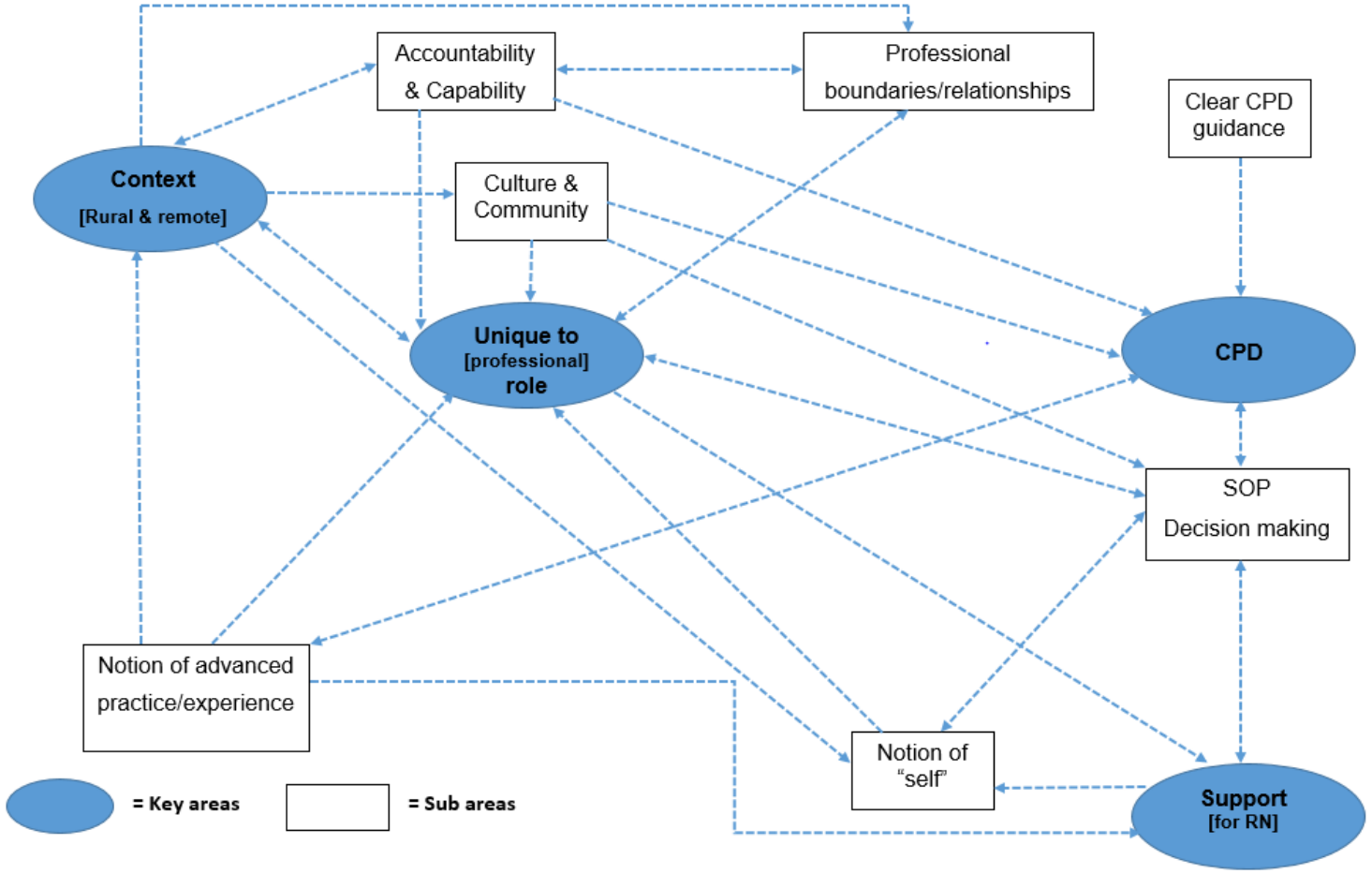


Figure 4.3 Mind map for standards, codes and guidelines

4.4.1 Support: Individual and organisational

Support was frequently discussed throughout documents. The Code of Conduct (NMBA, 2008a) and Code of Ethics (NMBA, 2008b) presented a range of responsibilities that nurses should meet. This included providing support to colleagues; patients and organisations. Supporting organisations was argued as providing quality care and ensuring systems to prevent risk were evident. The national framework for the development of decision-making tools (NMBA, 2007) focuses on the responsibility organisations have in ensuring they provide support, so nurses are well equipped to make effective decisions, leading to safe care. Suggested support mechanisms for organisations include appropriate policies, procedures and guidelines, sufficient staff to address workload, further education, training and clinically focused supervision, appropriate skill mix and sufficient access to other health care professionals to support nurses when undertaking skills outside their 'normal' role.

Discussion in Chapter Two demonstrated the lack of resources within rural and remote areas. As such, organisational support was of interest to the researcher, particularly in light of research question five (theoretical proposition 5b) which related to how rural and remote nurses overcome challenges in providing effective healthcare.

A text search query was run in NVivo to confirm findings surrounding organisational support. This search was carried out using the broad term of 'support'. In addition to this term, collaboration amongst other health care professionals, organisations, patients and their families was identified. Therefore, the researcher also ran a search on the word 'collaboration' to confirm whether this was a dominant finding. In relation to 'support' the text search query reinforced the original findings of Phase One. The data items discussed support from the multidisciplinary team, organisational support, support for patients and their families and support for education and competence and this area was strongly linked to safety. 'Collaboration' and collaborative practice for safe, supported care was noted as

a risk management strategy, as well as working collaboratively with patients and their families.

The clustered tree map in Figure 4.4 illustrates the terms associated with the two search terms and confirms findings. Red circles show major topics; ‘need for support’; responsibility of the ‘organisation to provide support’; and ‘collaboration within’ the organisation. Blue circles denote terms identified in the search directly related to the research questions.

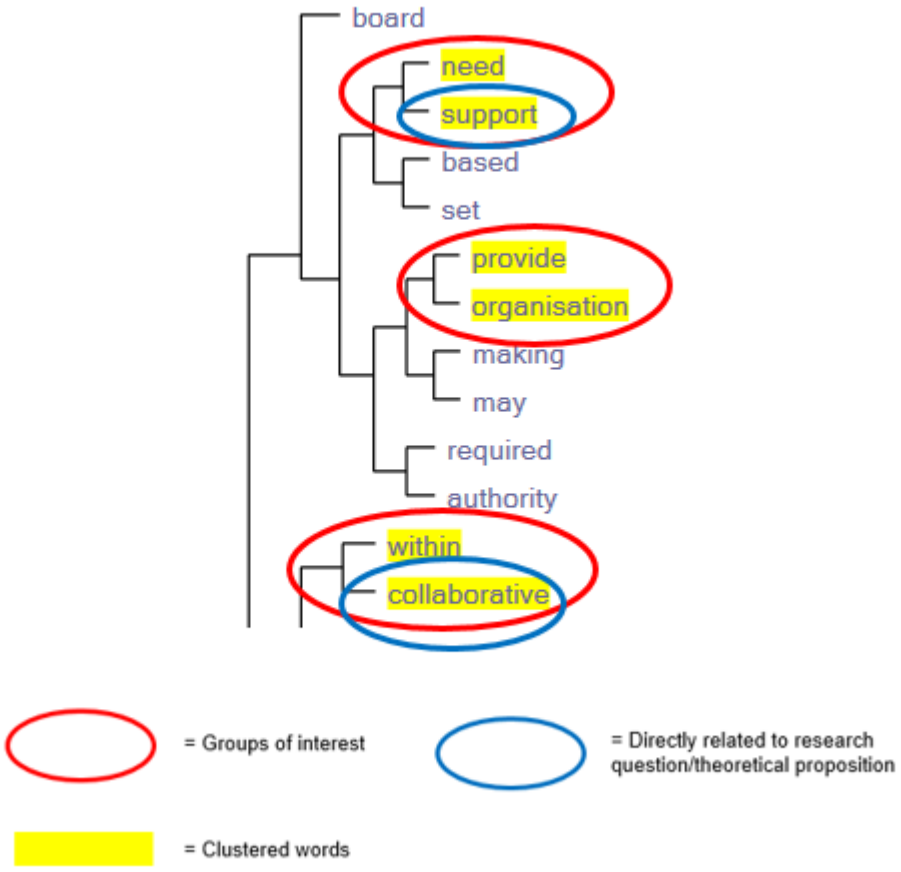


Figure 4.4 Clustered tree map - support: individual and organisational

4.4.2 Context

The original coding and mind mapping of the main issues arising from this set of data had a strong element of context, culture and community and how these directly related to RNs practice (Figure 4.5). This was an important area of the research as the fourth research question was directly linked to how a community or geographical area affects roles of RNs working in rural and remote locations.

The findings concluded that context affects nursing practice, however there was no clear guidance helping nurses to work within a 'non-conventional' area. One data item did provide standards for rural and remote nursing practice (CRANA*Plus*, 2016) but as discussed previously this is not a legislative document and serves merely as broad guidance to nurses who may or may not have seen this publication. Decision making should be carried out considering the influences of the context of practice (research question 4, theoretical proposition 4a). The nurse's scope of practice is therefore delineated by context and there is a need for CPD to be context driven (NMBA, 2016e).

In addition to context, culture was also found to be important. Appropriate cultural practices include nurses respecting differing cultures and acknowledging their own culture (NMBA, 2007, 2013, 2016a). Also, the notion of uniqueness related to rural and remote nursing was important although not clearly defined in these documents. Insufficient clarification about the term 'uniqueness' required further investigation in Phase Two (research question one, theoretical proposition 1a).

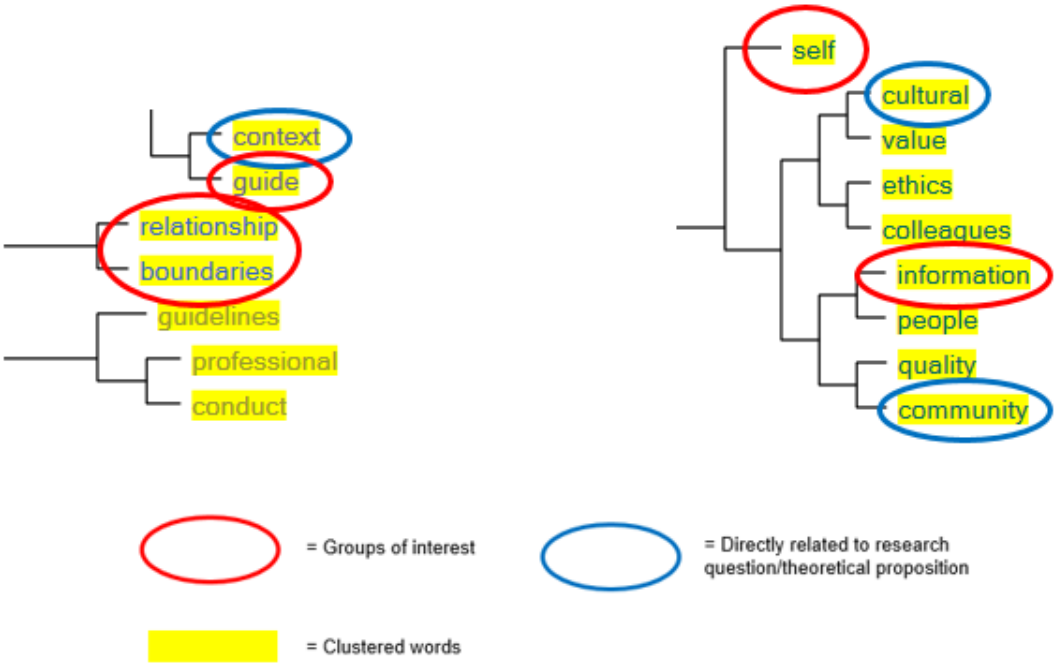


Figure 4.5 Clustered tree map: context

The importance of the notion of 'self' throughout the documents, in particular the Code of Ethics (NMBA, 2008b) was evident. 'Self' was an interesting feature as it spread across many clusters as can be seen in Figure 4.3. The researcher had initially placed the notion of self with support for the nurse, however following the content analysis of the data it became evident that 'self' also sat in other clusters. Self-respect and self-worth as a nurse and self-reflection in practice were all found in the CPD cluster. A text search query using NVivo to provide additional clarity as to where 'self' sat within these documents found a cluster called context, community and culture. This was an important finding towards answering research question four. Specifically, the role of 'self' related to the community; nurses having a good knowledge of the community in which they work, how the community identifies and influences client needs, access to health care services and community expectations of nurses were key findings (CRANA*Plus*, 2016).

Maintaining professional boundaries and the difficulties nurses face when working in rural and remote communities was only evident in one document when the content analysis was first undertaken (NMBA, 2013a). The researcher, therefore, wanted to see if this was a thread that had been missed and as such ran a query through NVivo relating to 'boundaries' and 'relationship'. Subsequently further data items were indeed found to contain this thread. There was clear guidance suggesting the need for nurses to build a therapeutic relationship (NMBA, 2007, 2016a). Therefore, professional boundaries exist to facilitate professional relationships, but it is challenging for nurses to achieve these in small communities (NMBA, 2013a).

4.4.3 Role

A cluster entitled 'professional role' (Figure 4.6), which included accountability, responsibility, support and competence, featured repeatedly throughout all documents. Accountability denoted nurses' accountability for their own practice and the decisions they make. Responsibility was related to standards, codes and guidelines for practice.

'Safety' frequently appeared in the data and was linked to research question two and in particular theoretical proposition 2b. To confirm findings, a word search using 'safe' as a stemmed word was implemented through NVivo. The results of this were interesting as the search had many different facets. The expected result of the nurse performing 'safe' practice featured widely throughout the data (NMBA, 2007, 2016a). Key areas included nurses being responsible for maintaining their competency and capability in providing safe care (NMBA, 2016a, 2016e), and working within their own professional boundaries (NMBA, 2013a). In addition, however, the responsibility of employing organisations to ensure sufficient supply of resources and the sustainable use of resources for safe care was also highlighted (NMBA, 2007). The final facet to this analysis was nurses have the right to be able to work in a safe environment without fear for their own or the safety of others (NMBA, 2007, 2013). Figure 4.3 presents the tree map related to 'Role".

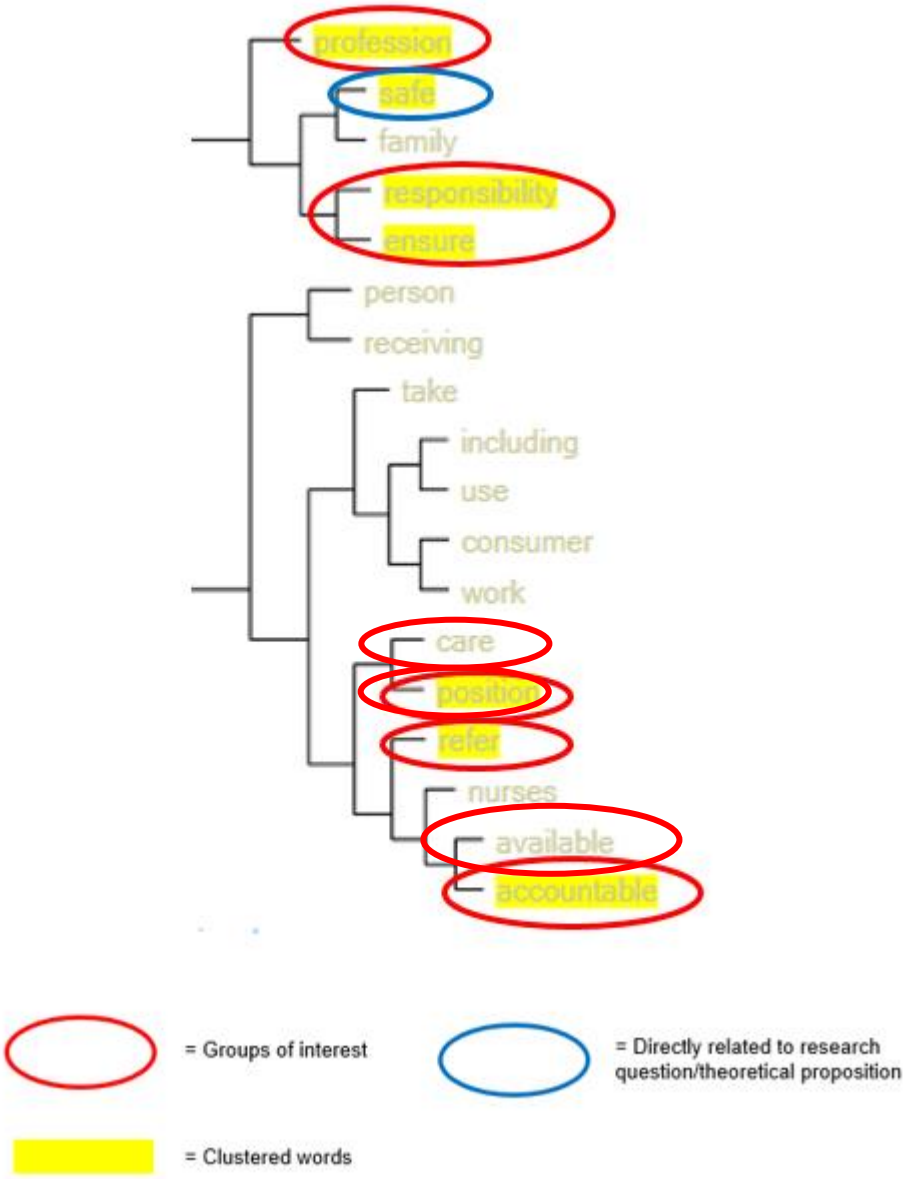


Figure 4.6 Clustered tree map: Role

The initial tree clusters demonstrated a link between scope of practice and competence and continuing professional development (CPD). As the researcher carried out a deeper analysis however and saw the links made between the professional role and these areas,

she decided to cluster the words ‘scope’ and ‘competence’ under the professional role cluster. Scope of practice features heavily throughout all documents analysed. Clear and consistent definitions for scope of practice are provided (NMBA, 2016a) showing a RNs scope is complex due to level of education, competence, confidence, context of practice and legal obligations. This does perhaps leave some ‘creativity’ for nurses within their role. These findings relate to, but do not answer, research questions one (theoretical proposition 1a), two (theoretical propositions 2a and 2b) and four (theoretical proposition 4a). Further investigation in the next phase of research was planned.

Competence was seen frequently throughout the data. Competence is defined by the NMBA (2016a, p.10) as *‘the combination of skills, knowledge, attitudes, values and abilities that underpin effective and/or superior performance in a profession/occupational area’*. Competence was linked to safety (decisions and delivering care), which in turn related to sufficient education and skill development (NMBA, 2016a, 2016e). Cultural competence was also referred to as a professional and ethical responsibility of all nurses (NMBA, 2007, 2013).

4.4.4 Continuing Professional Development (CPD)

The final cluster was CPD (Figure 4.7), related to nurses maintaining their registration (NMBA, 2016e). Despite this clear guidance further exploration for research questions three (theoretical proposition 3b) and five (theoretical proposition 5a) were needed due to reports in the literature that rural and remote nurses do not always get opportunities to undertake CPD activities.

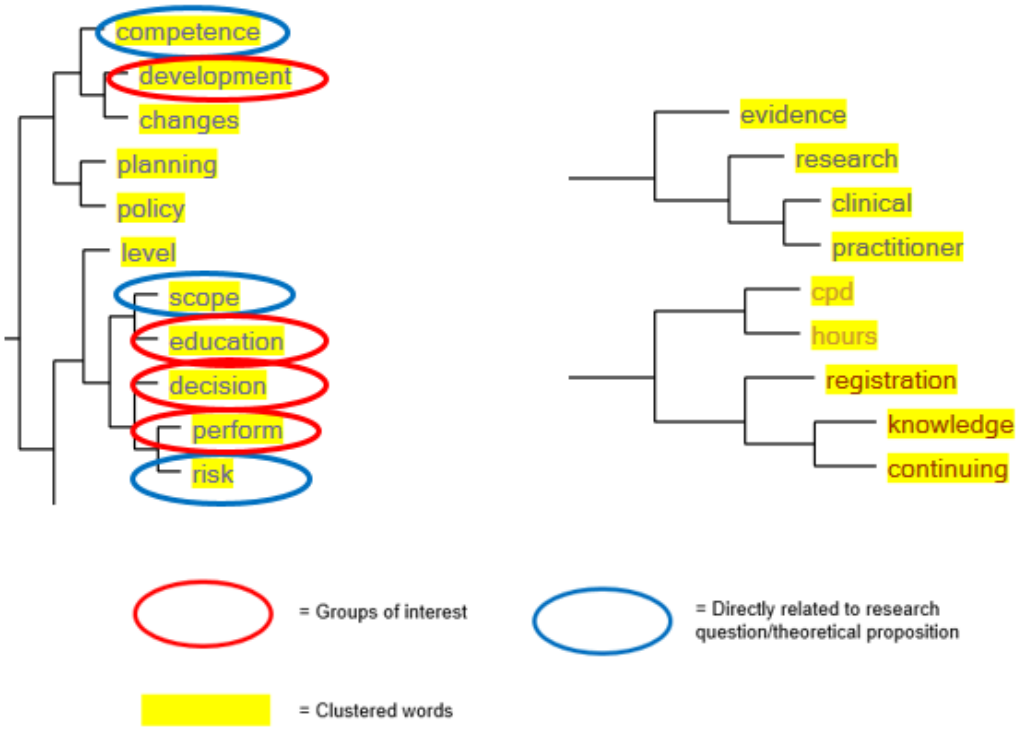


Figure 4.7 Clustered tree map for: continuing professional development

Clear links between ‘Development’, ‘education’ and CPD, and between ‘advanced practice’, ‘development of individual scopes of nursing’ and ‘clinical supervision’ were evident in the findings.

The findings of the first unit had many references to ‘decisions’ and ‘decision making’ and resources nurses should use or seek out when making clinical decisions and delegating an aspect of care to another person. There were also important links to nurses’ accountability once decisions have been made (NMBA, 2007, 2016a). In addition to the required knowledge, the ability of the nurse to ‘perform’ skills confidently and competently was evident as well as for skills to be within the nurse’s scope of practice and be permitted by law.

There was an expected focus on preparation of nurses to fulfil their roles and responsibilities. Interestingly, the term “preparation” was not frequently seen during the content analysis. However, competence and education were used, indicating the importance of appropriate preparation of nurses. In addition, management and organisational support for practice was apparent which was presented in section 4.4.1

Again, key words were run through NVivo, showing support for the findings and identifying other areas of importance that may have been missed. Table 4.6 depicts 16 key words run through NVivo.

Table 4.6 Cluster grouping of the 16 key words run through NVivo

Context, culture, community	CPD	Support for RNs	Professional role
Context	CPD	Support	Scope
Cultural	Preparation	Collaborative	Competence
Relationship	Development		Accountable
Boundaries	Education		Responsibility
Self	Perform		Safe
Community	Decision		

4.5 Findings: Data collection Unit Two - context specific documents

For Unit Two it was important to analyse context specific documents, as Yin (2014) states that knowledge of the context of a phenomenon under exploration aids understanding. As such, all documents related to nursing practice (the phenomenon/case) and the environment in which nurses work (context) were analysed.

4.5.1 National Strategic Framework for Rural and Remote Health

The National Strategic Framework for Rural and Remote Health was published in 2011 and further builds on the previous document published by the National Rural Health Alliance (2002) focusing on health inequalities and access to healthcare in rural and remote Australia. The framework delineates five key outcome areas: access, service models and models of care; health workforce; collaborative partnerships and planning; and strong leadership, governance, transparency; and performance (DoH, 2011). Key issues related to this study were particularly around two of the five proposed outcomes, these being; Outcome Two service models and models of care and Outcome Three, the health workforce.

Outcome Two; service models and models of care has a goal of providing effective, appropriate and sustainable health care in rural and remote settings (DoH, 2011, p.30). Innovation in workforce roles as a strategy has been proposed to improve integration of different service providers. There is no description as to what these roles may look like, nor the training required to achieve this strategy.

Outcome Three; health workforce focuses on achieving an appropriate, skilled and well-supported health workforce across rural and remote Australia (DoH, 2016a, p.35). Improved recruitment and retention of staff features heavily alongside availability of CPD for practitioners. Data analysis concluded that CPD availability and appropriateness, and recruitment and retention required further exploration in subsequent phases of this study.

4.5.1.1 QLD specific documents

The national strategy (DoH, 2011) provides this framework as a foundation for States and Territories to specifically develop their own frameworks. No specific document was found on publicly available websites for NSW Health in response to the 2011 publication. QLD Health however provided two documents; one which outlines the vision for rural and remote QLD, and the other proposes how the framework is used to achieve such a vision

(QLD Health, 2014a, 2014b). Used in conjunction with each other these documents provide a workforce profile for each different facility across rural and remote QLD.

Additionally, the QLD rural and remote mental health and wellbeing action plan 2016-2018 published by QLD Mental Health Commission in 2016 aims to address mental illness, suicide, alcohol and drug use for people living in rural and remote areas (Australian Institute of Health and Welfare [AIHW], 2010). Insufficient detail about the types of support available for people experiencing mental illness in these locations, particularly access to mental health trained nurse specialists was available, therefore requiring more exploration in Phase Two.

4.5.2 Council of Remote Area Nurses of Australia (CRANA*Plus*)

CRANA*Plus* is a professional body for nurses and allied health professionals working in remote areas. Members pay an annual fee and are entitled to professional advice; discounted rates for professional courses; and access to networking with others in remote areas (CRANA*Plus*, 2015). A number of publications have been produced by CRANA*Plus* to support nurses in practice (CRANA*Plus*, 2013, 2015) and are particularly relevant to this study and as such were included in the Phase One analysis. The publication *'Pathways to remote professional practice'* (CRANA*Plus*, 2015) is aimed at those nurses considering working in remote areas or who are new to remote nursing. Specific topics include considering employment in remote Australia; how to find work; examples of questions to ask potential employers; recommendations for prior experience; and continuing professional development courses. Additionally, the geographical context in which nurses work is briefly presented, such as weather patterns, road conditions and cultural ceremonies. This document highlights the importance of considering the context of a location before starting employment.

The document; Pathways to professional practice uses Benner's (1984) theoretical framework, demonstrating that nurses move from 'novice' through to 'expert' on the basis

of growing experience, education and continuing professional development. However, it does not give any indication of what skills, competencies, roles and responsibilities may fall within this trajectory. The framework provides:

- A definition of remote and isolated areas;
- a description of remote practice;
- characteristics of remote health services;
- pathways for remote practice for nurses/midwives; and
- CRANA*Plus'* position regarding validating remote professional practice.

CRANA*Plus* promote Advanced Practice Remote Area Nurse/Midwife (RAN/M) particularly in remote health practice settings, arguing for safety and quality of care. Nurses are encouraged to provide evidence to support how these proposed standards are met within their practice and apply for peer review by a panel of CRANA*Plus* members to take on the title of Advanced Practice RAN/M. Unfortunately, this title is not regulated by ANMC, nor can it be used in practice without the organisation adopting this 'role'.

In September 2012 the National Safety and Quality in Health Service Organisations' standards were published (Australian Commission on Safety and Quality in Health Care [ACSQHC], 2012) which aims to improve quality of health care. These standards were essentially written for hospitals and CRANA*Plus* in response to this published *'A clinical governance guide for remote and isolated health services in Australia'* (CRANA*Plus*, 2013). This was not to replace National Safety and Quality in Health Service Organisations' standards but to complement them in providing a more contextual slant for primary health care facilities of remote Australia, (Standards One and Two). In addition, CRANA*Plus* advocates for four foundational pillars called good clinical governance; workforce effectiveness, clinical performance and evaluation; clinical risk management; and consumer participation. All four pillars directly relate to this research study. Indeed, as

part of the clinical governance framework for remote practice it is stated *"…clinicians have a clear understanding of roles and responsibilities and have appropriate expertise to deliver care*" (CRANA*Plus*, 2013, p.27). The framework also clearly states one should work "*within a job description as well as within the professional scope of practice, legislation and professional standards and guidelines … and to identify any areas of performance that require development"* (CRANA*Plus*, 2013, p.59-60).

4.5.3 Incentive packages

In QLD the Remote Area Nursing Incentive Package (RANIP) (QLD Health, 2017a) is available. Of the 59 remote locations named as pertinent for the package; 44 are in RA5 (very remote), 14 in RA4 (remote) and one in RA3 (outer regional/rural). The RANIP recognises additional challenges encountered by nurses working in these locations including isolation from family and friends. As such, eligible employees under this scheme receive several benefits annually including; a minimum of five weeks recreational leave, two weeks professional development leave including travel, enrolment and conference costs, return airfares to the nearest east coast provincial city for the employee, their spouse and any dependent children, and an additional isolation bonus each year of continuous service (QLD Health, 2017a). In addition, free or subsidised accommodation may be available.

Like QLD Health, NSW Health offers a similar package called The Rural Remote Incentive Scheme, 2009 (NSW Health, 2011). These are tailored packages amounting typically to a maximum of $10,000, although higher amounts may be available. The packages can be made up of; professional development costs, provision of computers or internet costs, relocation costs, financial assistance for medical or dental costs, additional personal leave, study assistance and cash bonuses (NSW Health, 2011). The Rural Remote Incentive Scheme in this way provides more flexibility to employees than the RANIP.

4.5.4 Support: for nurses working with limited material and human resources

During this phase of data collection documents were scanned for the topic of "support" for nurses working in rural and remote areas. Support mechanisms are suggested to assist nurses in their assessment and management of presenting patients (particularly relevant in the absence of doctors). These documents presented information about support including; Telehealth (NSW Health, 2016; QLD Health, 2016a; Australian Nursing Federation [ANF], 2013; Australian Government, 2011), Telehealth Emergency Management Support Unit (TEMSU) in QLD (Barneveld, Young & Crosbie, 2016), the Royal Flying Doctor Service (RFDS) and clinical support manuals (QLD Health, 2016b).

4.5.4.1 Telehealth

The 2011 National Digital Economy Strategy (Australian Government, 2011) was a telehealth investment to facilitate consultations for patients living in rural, remote and outer metropolitan areas. Telehealth connects those living at a distance with specialist practitioners without having to travel long distances to appointments. There are a range of terms applied to use of digital technology in providing healthcare but in this research, telehealth refers to consultations via video links. Patients or clients can link with health care professionals from their own home, community health centres, local hospitals or Aboriginal medical centres.

The National Competency Standards for Registered Nurses (NMBA, 2010) did not provide guidance about using telehealth appropriately. The only reference to technologies was in support of competency 5.2 in which RNs are guided to *"use health care technologies in accordance with manufacturers' specification and organisational policy"* (NMBA, 2010, p.5). Therefore, the Australian Nursing Federation in conjunction with other organisations developed telehealth standards for Registered Nurses (ANF, 2013). Telehealth standards guide RNs to ensure safe effective practice when using this technology. The standards

include discussions in professional practice, critical thinking and analysis, provision and coordination of care, and collaborative and therapeutic practice (ANF, 2013). Interestingly, the Registered Nurse Standards for Practice (NMBA, 2016a), the Code of Conduct (NMBA, 2008a) and the Code of Ethics (NMBA, 2008b) do not have any reference to telehealth.

4.5.4.2 Telehealth Emergency Management Support Unit (TEMSU)

TEMSU was launched in 2013 and is based in Brisbane, QLD and offers an additional support mechanism for staff working in rural and remote locations across the state, for low acuity presentations (QLD Health, 2016a). Similar to Telehealth, TEMSU is available 24 hours without scheduling. Nurses can dial into TEMSU and receive advice and guidance from more senior nurses trained in Emergency Department (ED) and Intensive Care (ICU) nursing. Guidance for patient assessments are provided by video link with senior nurses. Where necessary senior nurses can link the rural or remote location with a specialist medical officer in another hub if medical advice is required. TEMSU aims to give nurses support to provide quick treatment locally, decrease the need for retrievals from the area and improve patient outcomes. Trials are being undertaken to incorporate an unscheduled Emergency AUSLAN interpreter service into TEMSU (Barneveld et al., 2016).

4.5.4.3 Royal Flying Doctor Service (RFDS)

The Royal Flying Doctor Service (RFDS) is a retrieval service for seriously ill or injured patients requiring urgent medical treatment at a tertiary facility or for patient transfers to other health care facilities for appointments and admissions. Instructional and emotional support is provided to RNs often working alone in managing acutely unwell patients until their arrival which may be over an hour away. Additional support provided are on the ground treatments, including access to a variety of health care professionals through clinics. These clinics not only provide support to RNs working in these areas but enable communities to access healthcare without having to travel vast distances at a cost. The

RFDS also provide telehealth advice to both nurses and community members. Medicine chests are provided in various locations and those using telehealth can advise RNs to access them if necessary.

4.5.4.4 Clinical manuals

In examining NSW and QLD health websites for additional relevant documents for RNs the Primary Clinical Care Manual (PCCM) was found (QLD Health, 2016b). This manual provides step by step guidance for nurses working with patients presenting with a variety of complaints. The manual guides assessment, when to contact the Medical Officer (MO)/NP and allows endorsed nurses to administer any stated medications under particular circumstances. Whilst other States/Territories did have a similar approach (such as The Northern Territory with the CARPA Standard Treatment Manual) (Remote Primary Health Care Manuals, 2014), on searching the NSW health website a similar manual was not found.

The NSW Health website, however, did provide the NSW Health Emergency clinical guidelines. Part of these guidelines (NSW Agency for Clinical Innovation, 2016) provide guidance for nurses managing emergency presentations such as airway, breathing and circulatory presentations. Other useful information on drugs includes how to relieve pain when no doctor is in attendance (NSW Agency for Clinical Innovation, 2016).

A large number of tasks within these guidelines can only be undertaken by those nurses who have completed the First Line Emergency Care Course (FLECC) and are currently accredited as such with individual LHDs. This raised the question as to how many nurses working in rural and remote locations have undergone such training and what accreditation systems are in place to ensure nurses remain competent to be working within such guidelines.

4.6 Overview and key aspects of data collection Unit Two analysis

Data within this section underwent the same stages of analysis as unit one, including creating a mind map depicting preliminary findings (figure 4.8). The same main findings were identified as unit one, however there was the addition of the workforce linking into CPD. NVivo queries were run on these terms to confirm findings of the content analysis.

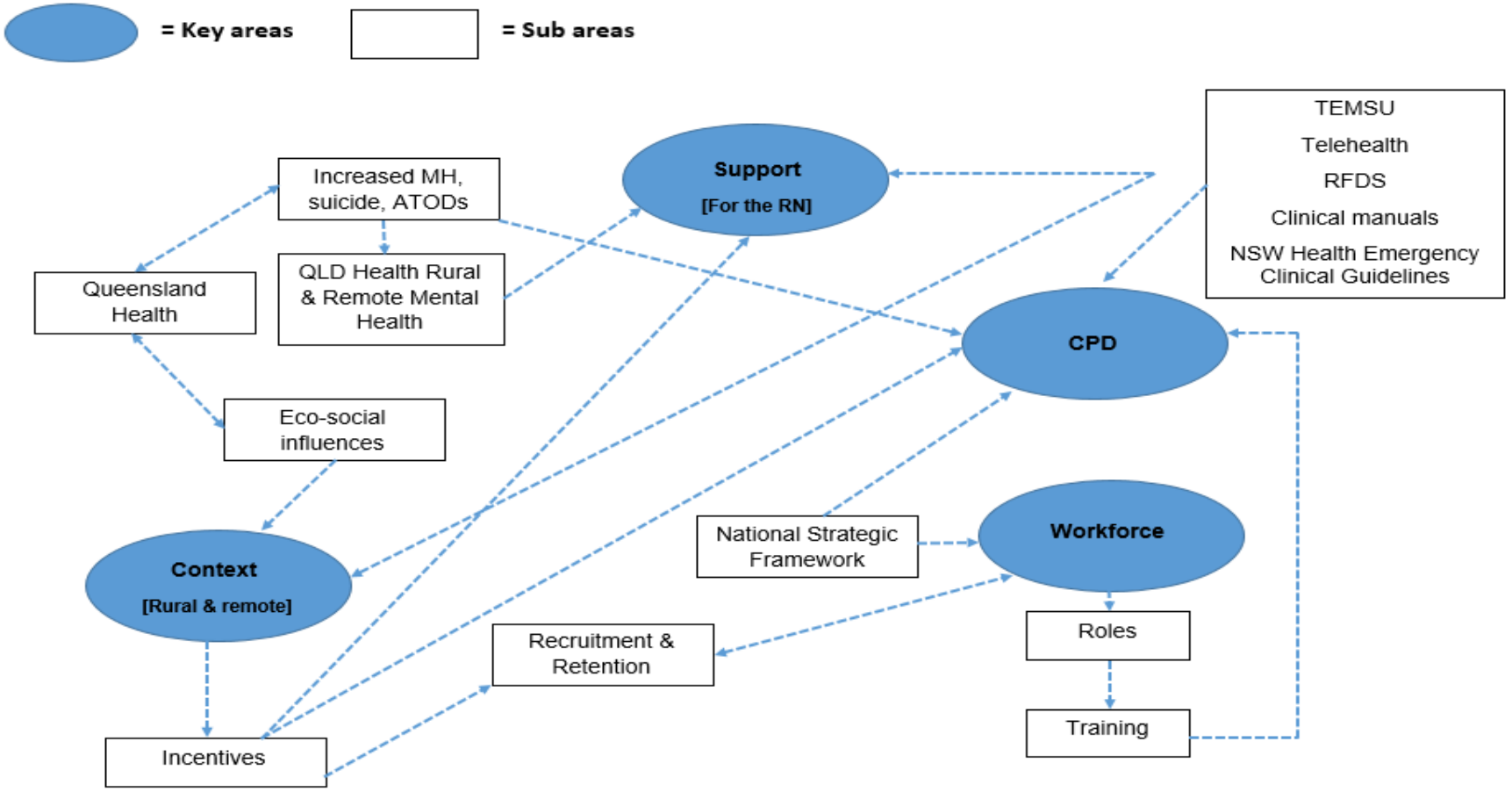


Figure 4.8 Mind map for context specific documents

4.6.1 Support: Resources for RNs

Support was frequently referred to, particularly mentoring and supervising rural and remote nurses. Sole practitioners working in communities without other professionals were identified as vulnerable, requiring technology to gain support (QLD Health, 2014a).

Education and training topics featured frequently in documents, often referred to as ongoing professional development. Nurses expressing an area to develop and receive subsequent education or training in was seen as vital in ensuring quality and safety (CRANA*Plus*, 2013). Training using online medium for education and telehealth was highlighted as needed (ANF, 2013; Australian Government, 2011).

One proposal was to establish administration support for nurses. The need for support in accessing telehealth was a common finding in many documents with the Australian Nursing Federation (2013) extending this idea and proposing a dedicated role to be established to facilitate the use of telehealth.

A transparent framework of policies and procedures being available and nurses working within them and reporting when deviating from them was considered of paramount importance. Access to expert clinicians to provide constructive criticism and direction was recommended.

4.6.2 Context

A major cluster throughout analysis was context, culture and community. These documents built further discussion from previous analysis (above). Additional information was included about types of communities (isolated, rural, remote). Information about issues for communities highlighted how context would affect roles and responsibilities for nurses. This data was supporting several theoretical propositions. The term ‘isolated’ for example, had two streams; workforce issues in isolated areas (theoretical proposition 2b)

and how isolated communities may influence health care and subsequent nursing roles (theoretical propositions 1a, 2a, 3c, and 4a).

'Access' was a common theme, with steps being taken to improve access to health care services at a government level including growing use of telehealth and other digital technologies. 'Community' was discussed similarly in these data items, indicating the importance of communities to nursing practice. In addition, there was a strong focus on community and primary health care.

In the previous data collection unit of standards, codes and guidelines, 'safety' had clear links to the professional role, however in the context-specific data it had clear links with community and context. Whilst there were references made to competence and safe practice, the reason for this shift was due to focusing on nurses' roles and responsibilities in quality, safety and risk management strategies as well as cultural safety in these environments.

4.6.3 Continuing Professional Development (CPD)

Documents focused on education and training were common. Findings showed two areas related to education; firstly, education for patients or service users and secondly for continuing education of nurses. Providing health education to communities, particularly preventative health is highlighted as essential. This is not surprising considering primary health care to communities is central to roles in rural and remote nursing (CRANA*Plus*, 2015; Malone & Cliffe, 2012).

Three areas for continuing professional development of RNs were discussed, including: induction, maternity and mandatory training. An induction/orientation is recommended for all nurses new to facilities with continuing access and time allocated for competency-based education (DoH, 2016a; CRANA*Plus*, 2013; Malone & Cliffe, 2012). Mandatory training and keeping a register of those who participated was also seen as important (CRANA*Plus*,

2013). Findings suggest new models of education delivery need to be considered, staff need to be competent in skills using the National Broadcasting Network (NBN) and telehealth, and education needs to be online and interactive. Workforce planners need to allocate time for continuing education and upskilling as part of workforce strategies (DoH, 2016a).

Maternity education and training were common across the data items. CRANA*Plus* highlights maternity and child health as an extension in a nurse's scope of practice in rural and remote areas (Malone & Cliffe, 2012). Appropriate education and training are subsequently needed to support these nurses in this role and ensure safe practice.

Expected CPD for all RNs was evident in all documents analysed. Other terms noted included 'education' and 'training'. The areas for education highlighted the most was emergency and the ability to deal with unexpected occurrences (CRANA*Plus*, 2015; Malone & Cliffe, 2012) and interdisciplinary training (DoH, 2016a).

4.6.4 Workforce

Workforce issues include aging nurses with a high percentage of nurses retiring within 10-15 years. Whilst there is a similar picture across Australia, rural and remote areas have a higher number of nurses in older age brackets (DoH, 2016b). Recruiting and retaining nurses is another significant issue identified. Workforce planners are encouraged throughout the National Strategic Framework (DoH, 2016a), CRANA*Plus'* clinical governance guide (2013) and the framework for remote practice (Malone & Cliffe, 2012) to seek appropriately skilled nurses, to provide preparation and support for practice through induction and orientation programmes, as well as ongoing training. To deliver an appropriate workforce, organisations need to look at new and innovative ways to address issues they face such as recruitment, retention and upskilling. There is a shortage of staff in these geographical areas and subsequently, safety and quality are a concern. Therefore, safety and quality are referred to in relation to workforce issues in these

documents. Effective use of current resources as well as new roles may be necessary for safe and effective health care delivery. Health services are encouraged to 'grow your own', which means current members of the community are educated as nurses and come back to the community once qualified for practice (DoH, 2016a).

4.7 Findings: Data collection Unit Three - curriculum documents

Documents focused specifically on education and training were analysed.

4.7.1 Mandatory training

Mandatory training must be undertaken by an employee working for a particular company to ensure health and safety of themselves and others. Organisations are obliged and are responsible for providing mandatory programs and monitoring staff completion (ACSQHC, 2012).

NSW Health staff can complete their mandatory training via an online portal named Health Education and Training Institute (HETI). Requirements for training and due dates for completion are assigned to staff when they commence employment. RNs working for NSW Health need to complete a minimum core requirement of 12 modules. In addition to these 12 modules, another 29 are required to be completed based on nurses' roles and the speciality in which they practice (HETI, 2017).

QLD Health also has an online portal for completion of mandatory training with some sessions also delivered face to face. A minimum of 13 core modules must be completed, with other additional modules specific to roles and facility. Clinical governance guides remote nurses (CRANA*Plus*, 2013) highlighting mandatory training and recommending a database to be kept of all staff completions of the required activities.

Aside from mandatory training there are accredited courses namely Rural and Isolated Practice (Scheduled Medicines); Registered Nurse course (RIPRN) (courses offered by CRANA*Plus)*; Certificate/Diploma/Master's in advanced practice (rural and remote health) and Master's level Nurse Practitioner course.

At this point it was not known if mandatory training was being completed by nurses, when they were completing it, how satisfied they were with engaging online and whether this was part of their professional development allocation. How many nurses engaged in additional education was also not known.

4.7.2 The Rural and Isolated Practice (Scheduled Medicines) Registered Nurse course (RIPRN)

Successful completion of the RIPRN course leads to endorsement with scheduled medicines (rural and isolated practice) with the NMBA. With this endorsement, RNs are able to obtain, administer and supply certain schedule 2, 3, 4 and 8 medications in the absence of a medical officer (NMBA, 2011). The course focuses on advanced decision making and diagnostic skills within a legal and professional framework in the context of rural and remote RN practice (QLD Health, 2017b). Being endorsed is not sufficient alone as practice should also be directed by individual state medicines and poisons legislation and organisational policies and procedures. This creates problems for nurses transferring between interstate employers.

Interestingly, whilst examining this course and registration endorsement, the NMBA released a consultation paper (NMBA, 2015) regarding discontinuation of endorsement for scheduled medicines (rural and isolated practice). At the time of this study an argument for discontinuing endorsement was that nurses in any area may need to schedule medicines. In addition, feedback had been received stating that there was no need for endorsement standards as the drugs and poisons legislation in individual states enables RNs to obtain, supply and administer scheduled medicines in accordance with relevant

organisational drug therapy protocols, such as those discussed in section 4.5.4.4. The question raised is whether nurses are carrying out this practice and working within organisational policies and protocols to obtain, supply and administer medications.

4.7.3 Council of Remote Area Nurses of Australia (CRANA*Plus*) programmes

CRANA*Plus* provide a number of programmes and courses designed to provide contextual training to remote nurses. Programmes are provided via preparatory online work and face to face tutorials or via online delivery only. Core courses for remote nurses include; the Remote Emergency Care course (REC) and the Maternity Emergency Care course (MEC). Online courses include mandatory training such as Basic Life Support (BLS), Advanced Life Support (ALS) and physical assessment. These courses do not include any supervised clinical teaching. Since Phase One analysis was carried out in 2016 CRANA*Plus* have significantly increased the number of courses provided.

Attendance is predominantly in city venues such as Cairns, Sydney and Brisbane, however CRANA*Plus* do state on their website that courses are delivered in remote locations. However, these occur infrequently. The researcher questioned whether there were enough courses being run in remote areas to meet this demand and how many nurses travelled to the cities for their education.

4.7.4 Certificate/Diploma/Master's in Advanced Practice (Rural and Remote)

There are a number of postgraduate opportunities for nurses at universities throughout Australia. First, analysis was undertaken to examine those postgraduate programs in universities across NSW and QLD. This was deemed necessary as it was expected that universities in NSW and QLD would be aware of the local needs of rural and remote nursing in these geographical locations; the study location. All postgraduate nursing courses offered at universities across NSW (n=11) and QLD (n=8) were examined for

specialisations (majors) and overall rural and remote contextual content. Within QLD there were two universities (25%) offering programmes majoring in rural and remote health. One university offered the Graduate Certificate in Nursing (rural and remote) (Diploma pathway suspended). The second university offered the Graduate Certificate, Diploma and Master's of Health (rural and remote). Within NSW only one university (9%) offered a Master's in Nursing (rural and remote) with one other university offering two elective units as part of their nursing pathway. These units focused on rural and remote health/nursing, but actual courses did not offer a major in this area.

There were many universities providing courses beginning at certificate level and progressing through to master's level, however these were non-contextual. Of those universities offering advanced practice programmes, majors were generally around education, leadership, acute care and chronic care. In previous years there has been rural and remote tertiary courses but at the time of this phase of data collection in 2016 these were no longer being offered.

4.7.4.1 Certificate/Diploma/Master's in Advanced Practice (Rural and Remote) post Phase Three data collection

Phase Three data analysis revealed many nurses did not always undertake local programmes in QLD and NSW. Therefore, the researcher needed to return to Phase One data and undertake further analysis of programmes available across Australia. Flexibility within case study research allowed the researcher to work between data sets and ensure rigour of the study (Yin, 2014). This analysis of additional Phase One data was carried out in 2018, two years after the initial Phase One data collection and analysis and therefore this section is related to programmes available in 2018 and/or 2019.

Whilst advanced practice programmes were provided, there were no programmes with a rural and remote speciality or unit content available in the States of Victoria and Western Australia. One university offered a Master's in Public Health which had a specialisation in

remote and polar medicine/health, however there were no nursing discipline programmes offered. The university in the Northern Territory did not offer any rural, remote or Indigenous specialities but stated all programmes *"focus on cultural awareness in the health practice context".* One university in Canberra was promoting a Graduate Certificate in Remote Indigenous Health but this was not currently being offered at the end of the study. In South Australia only one university offering any specific rural and remote programmes was found. This university offered a Graduate Certificate/Diploma and Master's in remote and Indigenous health practice (via Centre for Remote Health in Alice Springs). The programme has been developed in conjunction with CRANA*Plus*.

In comparison to the 2016 data findings, one university in NSW previously offered the Master's in Nursing (Rural and Remote) but was no longer advertising this course in 2018. The remaining NSW University discussed in section 4.7.3 still offered the Master's in Nursing practice with elective units offered for study ("Aboriginal and Torres Strait Islander mental health" and "working with Aboriginal people"). There was, however, no major offered in rural and remote nursing. Within QLD, data remained consistent with what was found in 2016. Two universities both provided elective units that focused on rural and remote nursing practice, particularly around high acuity or emergency nursing. Similar to Tasmania, one QLD university also offered a Master's in Public Health which offered an elective rural health unit. A Graduate Diploma in Rural Generalist Practice which was aimed at Allied Health Professionals but was cited within the Nursing section of another QLD University website was found, which may indicate that nurses were eligible to apply.

4.7.5 Master of Nursing Practice (Nurse Practitioner)

At the time of writing there were eight universities across NSW and QLD accredited with the Australian Nursing and Midwifery Accreditation Committee [ANMAC]/NMBA to deliver the Master's-level Nurse Practitioner course. In NSW one university were only offering the Mental Health stream of the programme and another was offering both the general and

mental health streams. The curriculum for mental health streams were not examined as part of Phase One, as the study was focusing on general RNs and not mental health practitioners specifically. Not all universities were offering Master's programmes to students at the time of writing.

Curriculum data available publicly were analysed in relation to course content and context-specific content. According to Mills, Birks & Hegney (2010) NPs established in rural and remote areas is rare. The review of curricula data helped in examining what the curriculum offered, cost and attendance mode to consider if this was influencing the low numbers of rural and remote NPs.

On examining the data, the number of clinical hours to be completed in a course differed greatly with clinical hours ranging from 300 to 658 hours. In 2015 the accreditation standards for NP curricula were updated to reflect the need for NP students to carry out a specific number of supernumerary hours. In the 2009 standards there were no requirements for clinical hours to be supernumerary. Those courses (n=5) accredited under the previous 2009 standards did not receive any guidance as to a specific number of supernumerary hours students were required to undertake, they simply ensured students had 5000 hours working at an advanced level to be able to register with NMBA. Three hundred supernumerary hours was included in the 2015 standards to ensure students did not endure any conflict between their student role and employee role where employee roles normally ended up taking precedence (Australian Nursing and Midwifery Accreditation Committee [ANMAC], 2015). Only one course examined was accredited under the 2015 standards and they stipulated completion of 468 supernumerary hours.

One university in NSW offered an elective unit in Indigenous health and encouraged nurses living and working in rural and remote areas to apply. One other course in QLD was accredited under the 2005 standards was offering a course, including an increased focus on primary health care and Indigenous health (one core unit was offered with this

title). Aside from these two courses there was no reference made to any content within the curriculum regarding cultural diversity, cultural awareness, Indigenous health or rural and remote nursing.

On applying to this program students had to identify two clinical supervisors for supernumerary hours. In some cases, one of these supervisors had to be an accredited NP. This specific need for students to identify clinical supervisors to work with them during their supernumerary hours may be challenging in many rural and remote areas which would make access to such courses whilst working in their current posts impossible. The most common delivery of course material was via an online medium with some courses requiring attendance at one-off residential schools or two-three-day intensives at certain points during semesters. Whilst an online mode of delivery would be of benefit to rural and remote nurses, assuming an effective network connection, the attendance at the principal city might prove problematic in terms of time and cost.

4.7.5.1 Master of Nursing (Nurse Practitioner) post Phase Three data collection

The researcher returned to publicly available data regarding Master's in Nursing (Nurse Practitioner) courses to undertake a more widespread search. At the time of data collection courses were running in 2018 and/or 2019. The researcher began by generating data from AHPRA regarding how many Nurse Practitioner programmes were currently active. A total of 14 programmes were currently running and recruiting students across all States and Territories in Australia. Of the 15 programmes one NSW University was still offering the mental health nursing only and was therefore excluded as the focus of this study was only general RN preparation and not speciality preparation.

Nine of the 14 programmes did not mention rural, remote or Indigenous in any course descriptions or outcomes. A NSW University had an Indigenous public health unit within their programme. Two Universities (one in the Northern Territory and one in NSW) offered

students one elective unit from a selection of different rural and remote focused units. Another University, whilst not having any specific core or elective units focusing on rural, remote or Indigenous topics, did state in their course introduction *"Learning experience across all course units will enhance and apply students' knowledge of the history and specific health needs of Aboriginal and Torres Strait Islander peoples".*

4.7.6 Pathways to Rural and Remote Orientation Training (PaRROT) (QLD)

Pathways to Rural and Remote Orientation Training (PaRROT) is a training programme offered by QLD Health to new employees beginning a role in a rural and remote location. The PaRROT programme aims to enhance transition to rural and remote practice by providing an orientation programme using primary health care focused on chronic disease management. At the time of analysis, no programme presented acute or emergency presentations.

Induction and orientation activities contain timelines associated with them. Alternatively, clinically focused professional development activities are self-directed with no due date to be completed. This learning is completed online or via printable workbooks.

4.8 Overview and key aspects of data collection Unit Three analysis

A mind map was used to show findings from curriculum data. As can be seen from Figure 4.9, three of the clusters identified for unit one also emerged in unit two; CPD, context and role. A further two clusters were also identified that had not been seen previously; Nurse Practitioner and workforce.

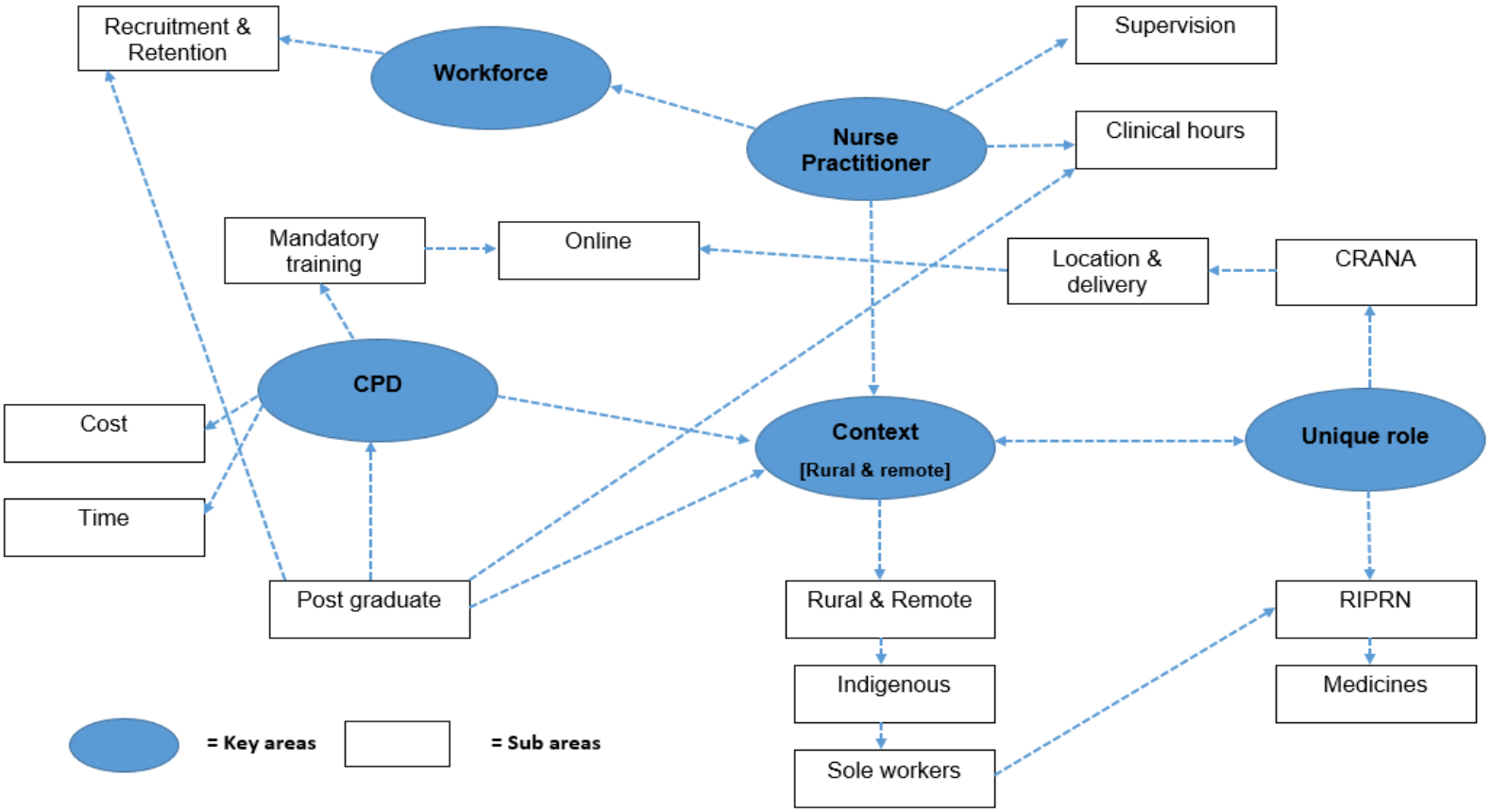


Figure 4.9 Mind map for curriculum documents

4.8.1 Role and context

Context specific data highlights the unique roles of rural and remote nurses. Yet there is no specific detail of how or why this is the case. Thus, it can be argued that, if their role is unique, nurses have specific education requirements and continuing professional development. For those courses resulting in a qualification, course data within this section did not appear to be targeting nurses working in these environments. However, without yet knowing the needs of these nurses, this could not be confirmed at this point of the study. CRANA*Plus* as a professional organisation do appear to offer short context-specific education and training but issues regarding the location and delivery of these courses are questionable.

The RIPRN course which enables nurses to obtain, administer and supply certain schedule 2, 3, 4 and 8 medications are directly aimed at remote practitioners who have limited access to medical officers. The researcher now wanted to know how many nurses had undertaken this endorsement and were undertaking this specific role in rural and remote nursing.

Whilst this phase has shown there is a set CPD requirement in terms of hours, it was not known whether nurses were able to travel and access courses and training opportunities.

4.8.2 Continuing Professional Development (CPD)

Clearly location and delivery of CPD is a significant consideration in competent rural and remote nursing. Further exploration of mandatory requirements delivered online without clinical skills acquisition alongside the theory is necessary. Whilst CRANA*Plus* recommended several courses to nurses considering remote nursing posts it was not known what courses were being undertaken or the benefits for practice.

4.8.3 Nurse Practitioner role

The NP role looks well suited to rural and remote areas but how many are working in these areas and how well the Master of Nursing Practice (Nurse Practitioner) had prepared them for their role was of interest to this study.

4.8.4 Workforce

The importance of education and training to gain a desired workforce is known, however, Phase One has not provided sufficient evidence to show rural and remote nurses are educationally prepared appropriately.

4.9 Synthesis of content analysis of all documents

Synthesis of all findings was required for deeper analysis. Content analysis compared documents seeking common terms and concepts across documents of all categories. According to Yin (2014) this is an important strategy to identify any contradictions between data sources. To remain true to Yin's approach (2014) Phase One findings revolve around the research questions to confirm whether the secondary research questions were answered or not. Table 4.7 provides a basic outline of what was known from Phase One, what remained unknown and any questions raised. The discussion is now presented under each secondary research question, which expands on the information in Table 4.7.

4.9.1 What are the roles and responsibilities of working in rural and remote areas of Australia?

Although Phase One data analysis provided a clear indication of professional frameworks for nurses and resources available to guide their practice, specific roles and responsibilities were not identified at this point. The theoretical proposition that a variety of roles and responsibilities are held between nurses working in rural and remote areas of Australia, however, was supported by the findings (NMBA, 2007, 2016a). Context specific

data provided insight into how roles may differ, highlighting the generalist nature of a rural and remote nurse's work as opposed to being a specialist in one area of practice and subsequent extension to their scope of practice (CRANA*Plus*, 2016). An additional role identified specific to this context of practice was telehealth (NSW Health, 2016; QLD Health, 2016a ANF, 2013). Specific duties and how they differ from nurses working in metropolitan or regional areas remain unknown.

Whilst it was clear nursing roles and responsibilities are defined by the context of practice, the standards, codes and guidelines for nurses are not context based. There are no national or state specific professional or legislative guidance in relation to the roles and responsibilities of rural and remote nurses. The National Strategic Framework for Rural and Remote Health (DoH, 2016a) acknowledges new ways of working are needed to address workforce issues, however, there is no discussion or description of what these new roles might look like or how such roles may be operationalised.

Frameworks for decision making (NMBA, 2007), whilst aimed to assist planning for new nursing roles and responsibilities, unfortunately only provide limited guidance for nurses about whether they should perform a skill at a particular time. Therefore, there is a gap in understanding how the unique context of the rural and remote environment may or may not directly influence the roles of nurses, particularly for an unexpected presentation of a service user and importantly what that means for nurses both professionally and legally.

Context specific data acknowledges there is reduced support for nurses from other health care professionals in rural and remote locations. This lack of human resources was highlighted in the documents analysed. How this impacts on the roles and responsibilities of nurses is not clear.

Use of telehealth featured extensively throughout the data analysis. Some data items went so far as to suggest a dedicated role was needed to manage telehealth (ANF, 2013). It

was not known how frequently telehealth is implemented into practice and how nurses were trained or prepared to undertake this role.

4.9.2 How do rural and remote nurses work within their scope of practice?

Clear guidance is given as to professional expectations of the board of registration when it comes to the standard of practice for Registered Nurses (NMBA, 2016a). There are also clear definitions of scope of practice, however this definition purports that the scope of a nurse's practice is dependent on the nurse's education, competence, confidence, context of practice and legal obligations. The researcher asked herself when and who makes the decision as to whether an appropriate level of education, competence or confidence has been obtained to enable a nurse to carry out an extension on the traditional scope of RN practice? Is this decision taken at an individual level or are policies available within facilities to outline these specific requirements? Context specific documents do note that rural and remote nurses have an extension to their practice in having to treat and care for presentations in broadly described areas such as maternal and child health (Malone & Cliffe, 2012).

Data items such as CRANA*Plus*' (2015) pathways to remote professional practice draws on Benner's (1984) work in demonstrating how a remote practitioner progresses from a novice to expert through gaining skills and experiences, yet these skills, roles and responsibilities are not delineated against the different levels (theoretical proposition 2a and 2b). It is not possible in Phase One to clarify whether such roles are unique to rural and remote environments, are an extension of practice or do indeed indicate a level of advanced practice (theoretical proposition 2a).

Whilst there is no specific reference to rural and remote nurses there is an indication from NMBA that organisational concerns (theoretical proposition 2b) may have previously existed regarding changes to a nurse's scope of practice due to the framework for decision

making for nurses' publication (NMBA, 2007). In addition, CRANA*Plus* are striving towards validation of remote area nurses to ensure consistency in roles and responsibilities and educational pathways (CRANA*Plus*, 2015). The researcher was interested to know whether such validation was important to registered nurses.

One potential challenge for nurses working in rural and remote practice is maintaining professional boundaries within the community in which they work (NMBA, 2013a). Further data to support whether the community has a direct impact on RNs was required.

The role of the NP originally evolved in Australia with the intention of addressing the need for advanced roles in rural and remote nursing (Mills et al., 2010). The researcher throughout Phase One attempted to ascertain the numbers of NPs working in rural and remote locations across QLD and NSW. Whilst she was able to confirm numbers of NPs working within these states, she was not able to find confirmed data as to where these NPs were located geographically. Therefore, the researcher wanted to seek this information in the next phase. Additionally, how their role impacts on service provision as well as the subsequent role of RNs working at the same facility was also an interesting question.

4.9.3 How do rural and remote nurses prepare for their roles and responsibilities in rural and remote Australia?

Phase One findings highlighted continuing professional development, education and training were important for a competent rural and remote nursing workforce. From a regulatory perspective there are clear guidelines for nurses regarding their obligations to meet requirements for continuing professional development, and CPD activities should be specific to the context of the work environment (NMBA, 2016d, 2016e). Whilst this guidance was useful in relation to understanding what nurses should be undertaking from an hours perspective, it could not be confirmed whether nurses are indeed meeting this requirement. Additionally, context specific roles were not yet known and therefore it is not

clear how much variation is present in the diverse range of communities and geographical locations which may be affecting nursing practice. It is not possible from Phase One to determine if nurses are appropriately prepared for such roles nor whether this preparation is at an advanced level of thinking (theoretical propositions 3b and 3c).

A number of CRANA*Plus* programmes were identified during the Phase One analysis which indicated provisions for rural and remote advanced practice was presented, however Phase Two needed to see which of these courses, if any, nurses were accessing and the impact such courses have on their practice. Learning and development needs according to nurses also needed to be ascertained.

4.9.4 Why and to what extent are eco-social influences so important to the scope of practice in rural and remote Australia?

Phase One findings highlighted context of practice, community and culture impacted on nursing practice. However, limited examples from context specific data were given as to how this context affects the roles and responsibilities of nurses including variation to scope of practice and blurring of professional boundaries (NMBA, 2013a). Therefore, Phase Two needed to explore the context of rural and remote nursing practice such as the type of community and culture and how these affected the day to day experiences of these nurses (theoretical proposition 4a).

The researcher wanted to identify the challenges nurses face when working in rural and remote environments and how they were different from metropolitan and urban environments. Rural and remote communities were vastly different in population size, cultural makeup and income streams of various districts such as agriculture, mining, tourism, to name a few. What the researcher didn't understand in this phase was how different community profiles had a direct impact on roles and responsibilities of nurses. The generalist nature of the nurse's role was alluded to in section 4.9.1 and the researcher was interested to see how this generalist nature aligned with a specific community.

The blurring of professional boundaries was a significant challenge faced by nurses living in a small community (referred to in section 4.9.2). The NMBA (2013) publication '*A nurse's guide to professional boundaries'* acknowledges that there may be more challenges in this area for rural and remote nurses living and/or working in small communities.

As shown in section 4.5.1.1, QLD Health have acknowledged that these socio-economic factors have impacted on rural and remote communities resulting in an increase in mental illness, suicide and alcohol and drug use (QLD Health Mental Health Commission, 2016). It was not clear if there were sufficient health care practitioners to address increased mental health issues and whether there was an impact on nurses' roles.

4.9.5 How do rural and remote nurses overcome barriers to sustain motivation and address challenges in providing effective healthcare?

Findings in this phase highlighted the importance of support for all RNs, no matter where they worked. Related words were collaboration, organisational support, adequate resources, reflection and clinically-focused supervision. However, whilst this acknowledgement is important, at this stage it was not known what specific support measures were available for rural and remote nurses. Context-specific data suggested a need for induction programmes, mentorship, clinical supervision and experienced managers to provide direction and insight (DoH, 2016a; CRANA*Plus*, 2015). Governance directives (CRANA*Plus*, 2013) imply nurses must be provided with such support measures, with policies and guidelines to work to and tell managers when they work outside of these or where they have an area for development. The researcher needed to gather data regarding whether these support mechanisms were being provided in practice, if not, where nurses were gaining support and how effective this support was.

Earlier in this chapter a number of clinical support mechanisms were discussed such as Telehealth, TEMSU, PCCM and RFDS and further work to ascertain the effectiveness of

these support measures on a daily basis was needed. In addition, it was not known what nurses working in these environments consider as challenges they face. As yet, the researcher was unable to confirm or refute theoretical propositions 5a and 5b. Likewise, without clarity about the roles and responsibilities of these nurses and CPD opportunities to meet the associated needs, it was not possible to confirm whether their practice was affected (theoretical proposition 5a) by these challenges. Data particularly singles out sole practitioners as in need of support (Malone & Cliffe, 2012) and the researcher wanted to ensure she had access to sole practitioners in the next phase of research to explore whether this group of nurses had particularly different roles and responsibilities and subsequent development/support needs.

There is strong evidence to support issues of recruitment and retention in these areas (DoH, 2016a; QLD Health, 2014b, 2017a) and some incentives offered to nurses to attract them to rural and remote nursing have been highlighted in this chapter. An exploration into why nurses were leaving these jobs was required and importantly what motivating factors keep people working in these environments. The effectiveness of the incentive packages also warranted further exploration.

4.10 Implications for Phase Two

Completing Phase One led to five areas identified by the researcher requiring further investigation in Phase Two of the study including:

- Workforce - recruitment and retention;
- uniqueness of roles (including scope of practice);
- support for RNs;
- CPD and preparation for practice; and
- context specific factors.

Table 4.7 depicts what is now known and what still needs to be known.

Table 4.7 Mapping at the end of Phase One

Research question	Proposition	What is known?	What remains unknown?
What are the roles and responsibilities of RNs working within rural and remote areas of Australia?	There are a variety of roles and responsibilities held between nurses working in rural and remote areas of Australia.	National strategic framework states new ways of working are needed to address workforce issues; however, RN roles are not discussed in relation to what they may look like. Reduced level of support and exposure to a variety of health care professionals in rural and remote locations exists. The more isolated the community the more generalist the role of the RN. The roles of RNs working in rural and remote areas are unique due to geographical locations.	What roles and responsibilities in these locations do nurses engage in compared to those working in urban or metropolitan areas? Does the lack of availability of other health care professionals in these areas impact on nurses' roles and responsibilities? How many Nurse Practitioners are working in these locations? Whilst there is evidence that the roles of RNs are unique due to geographical locations, there is no recent evidence as to why it is so unique.
How do rural and remote nurses work within their registered scope of practice?	There are some roles and responsibilities of rural and remote RNs that are an extension of their practice and indicate a level of advanced practice. There are a number of organisational concerns regarding RNs' scope of practice working in rural and remote areas [including	The NMBA provide a number of documents which delineate the standards to be met by RNs in relation to performance, ethics, behaviour and professional boundaries. Also provides guidance to individual RNs as well as organisations regarding decision making and new roles.	TEMSU is signposted as being used for low acuity patients, however is it these patients that RNs need support with? What challenges of patient presentations in this environment do nurses face and how do they impact on RNs' scope of practice?

	patient safety, workforce planning, recruitment and retention].	Provide definitions of advanced nursing practice and advanced practice nurses. Additional standards from CRANA*Plus* for those nurses working in remote environments. The NP role has its own set of standards for practice in addition to those RN standards which must also be met. The Department of Health has recognised through its framework that RNs require CPD both in providing a skilled workforce and for retention.	How many Nurse Practitioners are working in these locations?
How do RNs prepare to fulfil their roles and responsibilities in rural and remote Australia?	There is international variation of advanced level practice and preparation for it. There is a variation amongst rural and remote RNs regarding the amount and level of CPD/preparation for practice in rural and remote areas. RNs working in rural and remote areas require advanced level thinking and practice to fulfil their roles and responsibilities.	The NMBA provides guidance about the number of hours of CPD RNs need to complete annually to be able to re-register. There are many mandatory requirements for RNs working in NSW and QLD Health. There are various incentive packages which offer RNs working in rural and remote locations additional CPD money and time. Postgraduate programmes are available to RNs aiming to prepare them for rural and remote practice. These offer a variety of contextual teaching and application. The Nurse Practitioner accreditation programmes available offer limited contextual	Are nurses completing CPD requirements and if not why not? What postgraduate courses are nurses undertaking to support them in their roles? What further professional development do they feel is important for practice?

	There are a number of existing programmes available to prepare RNs for advanced level practice.	practice and have several inhibitors to NP students being able to develop their clinical skills under the supervision of a suitably qualified clinician. RIPRN offers RNs education for endorsement to supply and administer medications in the absence of a doctor. However, consultation for RIPRN to be withdrawn with the move to all nurses being able to prescribe is occurring.	
Why and to what extent are eco-social influences important to the scope of nursing practice in rural and remote Australia?	The economical influences of the community determine some clinical issues nurses are exposed to and/or required to manage and treat. Examples may include; agriculture, mining, availability of human and material resources and economic issues such as political elections that may take place during the study.	RNs living and working in small communities are exposed to issues around professional boundaries. NMBA provide guidance to address this situation. Particular difficulties exist when working as a sole practitioner. The more isolated the community the more generalist the roles of RNs. The Department of Health has a national strategic framework offering broad objectives for health in these areas. The socio-economic challenges facing people living in rural and remote areas have resulted in higher incidence of mental illness, suicide, alcohol and drug use in community.	What are some challenges working in small communities? How does the community profile influence practice? Are there appropriate health care practitioners available to meet the needs of specific communities?
How do rural and remote nurses overcome barriers to sustain motivation and address challenges in	Rural and remote nurses face challenges which can have an effect on their practice.	CRANA*Plus* offers professional support and networking to nurses working in rural and remote locations.	TEMSU is signposted as being used for low acuity patients, however is it these patients RNs need guidance to support?

providing effective health care provision?	Rural and remote nurses use their networks across locations to gain support and information to provide effective health care.	Incentive packages are offered to RNs to recruit and retain them. There are a variety of support mechanisms available for RNs (telehealth, TEMSU, manuals, RFDS). Rural and remote locations have workforce issues around recruitment and retention of staff.	How long are nurses working in these roles for? Why are nurses leaving these locations? What are the challenges which may make a nurse consider leaving? What motivates nurses to stay?

4.10.1 Turning to theoretical propositions

Phase One findings provided clarity regarding the professional regulation of nurses' practice, the uniqueness of the rural and remote context, and identified educational courses available for nurses. However, whilst these findings are important, at this stage it was not possible to accept or refute any theoretical propositions.

4.10.2 Rival explanations

There were no evident rival explanations for these findings. Data examined in this phase were regulatory documents and policies and as such there were no alternate explanations for the findings.

4.11 Chapter summary

This chapter has presented an overview of key findings following content analysis of Phase One data, examining key policy documentation and guidance available to Registered Nurses. Both professional guidance for RNs nationally as well as context specific data regarding States and geographical location have been analysed. Five core areas for further exploration during Phase Two of the study were identified. This exploration aimed to obtain both support for Phase One findings, provide further detail to answer all research questions or alternatively identify a rival explanation, and confirm or refute theoretical propositions.

Chapter Five presents the Phase Two findings of the study.

CHAPTER 5. PHASE TWO

"I love the holistic nature of the work, I enjoy the challenges and I am always learning new things. Plus, the Indigenous community in which I live, and work is the best work environment you can imagine - it beats institutionalised nursing hands down. It is very wholesome and grass-roots stuff" (QLD36)

5.1 Introduction

At completion of Phase One there was insufficient evidence to answer the research questions or refute theoretical propositions. Therefore, Phase Two aimed to focus predominantly on five topics found in Phase One, which required further exploration. These topics were:

- Workforce - recruitment and retention;
- uniqueness of roles (including scope of practice);
- support for RNs;
- CPD and preparation for practice; and
- context specific factors.

Table 5.1 illustrates mapping of Phase Two questions from what was learnt from Phase One.

This chapter presents findings of Phase Two of the study, an online questionnaire (semi-structured and open-ended questions). The aim of Phase Two was to clarify rural and remote nurses' roles; responsibilities; working environments and contexts; scope and preparation for practice in rural and remote locations.

Findings of demographic information (providing a profile of research participants), open-ended questions related to research questions, and a within-case and cross-case analysis are presented. Such analysis explores similarities and differences in findings across cases and between participants within the same case. To understand each case, within case analysis was carried out including:

- within case analysis of: Case One (QLD) RA2, RA3, RA4 and RA5; and
- within case analysis of: Case Two (NSW) RA2, RA3, RA4 and RA5.

Following understanding each case, comparisons across cases were undertaken. Due to low participant numbers in RA2, RA4 and RA5 a cross-case analysis was not possible between cases, QLD and NSW. RA3 was the only unit of analysis with sufficient numbers to draw comparisons between the two States:

- cross-case analysis of: Case One (QLD) and Case Two (NSW); and
- cross-case analysis of: Case One (QLD) RA3 and Case Two (NSW) RA3.

Finally, all theoretical propositions are considered, and data examined for rival explanations. The chapter concludes with implications for Phase Three of the study. A justification for use of multiple methods, a detailed explanation of types of analysis and an explanation as to data converging can be found in Chapter Three. Section 5.5 provides an illustration of how this analysis for Phase Two data was undertaken.

Table 5.1 Mapping of data (Phase One) to developing questions (Phase Two)

Research question	Proposition	What remains unknown?	Survey question
What are the roles and responsibilities of the RN working within rural and remote areas of Australia?	There are a variety of roles and responsibilities held between nurses working in rural and remote areas of Australia.	What are the roles and responsibilities nurses have working in rural and remote locations that others working in urban or metropolitan areas do not have? Does availability of other health care professionals in rural and remote areas impact on the roles and responsibilities of the nurse? How many Nurse Practitioners are working in these locations?	What is your current job title? Which of the following best describes your workplace? [District hospital, community hospital, rural hospital, rural multipurpose health service, community multipurpose health service, other (please specify without naming the facility)]. In your current role how much time (%) is spent doing each of the following in a typical month? [Clinical/direct patient care, administration, research, education, management. <10%, 10-25%, 26-50%, 51-65%, 66-80%, >80%] Please feel free to add comments. What are your main clinical roles and responsibilities on a weekly basis? Which of the following age groups do you work with clinically? [Older adults (>65yrs), adults (18-64yrs), adolescents (13-17yrs), children (6-12yrs), children (1-5yrs), infants (<1yr)].
How do rural and remote nurses work	There are some roles and responsibilities of rural and remote RNs that are an extension of practice and	TEMSU is signposted as being used for low acuity patients however is it these patients that RNs need support with?	Do you have access to any of the following health care professionals? [Doctor, anaesthetist, midwife, psychiatrist, psychologist, mental health RN, social worker, drug and alcohol liaison, other (please

within their registered scope of practice?	indicate a level of advanced practice. There are a number of organisational concerns regarding scope of practice of RNs working in rural and remote areas [including patient safety, workforce planning, recruitment and retention].	What are the challenges in managing patient presentations in this environment? In addition, how do they affect a RN's scope of practice? How many Nurse Practitioners are working in these locations?	comment). Available onsite 24hrs a day 7 days a week, available onsite during business hours only, available off site via phone 24hrs a day 7 days a week, available off site via phone during business hours only, available via telehealth, other (please comment)]. Do you always have access to resources and/or professionals to manage patient presentations at any time? If no, can you give me an example of when you did not and how were issues overcome?
How do RNs prepare in order to fulfil their roles and responsibilities in rural and remote Australia?	There is international variation of advanced level practice and preparation for it. There is a variation amongst rural and remote RNs as to the amount and level of CPD/preparation for practice in rural and remote areas. RNs working in rural and remote areas require advanced level thinking and practice to fulfil their roles and responsibilities. There are a number of existing programmes available to prepare the RN for advanced level practice.	Are nurses completing the CPD requirements and if not, why not? What postgraduate courses are nurses undertaking to support them in their roles? What further development do they feel is important in supporting their practice?	Have you completed any study since you qualified as a RN (incl. in-house courses, training days, university courses), if so what? Have you completed any study since you have been working in your current role, if so what? How much funding for course attendance and/or paid study leave do you receive annually? Are there any particular skills and/or courses that you feel you would personally benefit from, or that you think RNs working in rural and/or remote locations should have?

Why and to what extent are eco-social influences so important to the scope of nursing practice in rural and remote Australia?	The economical influences of communities determine some clinical presentations nurses are required to manage. Examples may include; agriculture, mining, availability of human and material resources and economic issues such as political elections that may take place during the time of the study.	What are some challenges to working in these small communities? How does the profile of a community influence practice? Are there appropriate health care practitioners available to meet the needs of specific communities?	Can you tell me a little about the community in which you work e.g. mining, agriculture, Indigenous? What is your workplace postcode? Which of the following best describes your workplace? [District hospital, community hospital, rural hospital, rural multipurpose health service, community multipurpose health service, other (please specify without naming the facility)]. How far is it to the nearest tertiary referral centre (if known)? Do you always have access to the resources and/or professionals to manage patient presentations at any time? If no, can you give me an example of when you did not and how the issue was overcome?
How do rural and remote nurses overcome barriers to sustain motivation and address challenges in providing effective health care provision?	Rural and remote nurses can face a number of challenges which can have an effect on their practice Rural and remote nurses use their networks across locations to gain support and information to provide effective health care.	TEMSU is signposted as being used for low acuity patients, however is it these patients that RNs need the support with? How long are nurses working in these roles for? Why are nurses leaving these locations? What challenges may make a nurse consider leaving? What motivates nurses to stay?	How long have you worked in rural and/or remote locations as an RN? [< 6 months, 6-12 months, 12 months – 2 years, 2-5 years, > 5 years]. How long have you worked at your current place of employment? [< 6 months, 6-12 months, 12 months – 2 years, 2-5 years, > 5 years]. How long do you plan to stay at your current place of employment? [< 6 months, 6-12 months, 12 months – 2 years, 2-5 years, > 5 years, don't know].

			How long do you plan to stay working in rural and/or remote nursing? [< 6 months, 6-12 months, 12 months – 2 years, 2-5 years, > 5 years, don't know]. How many hours/days are you contracted to work per week? How many hours did you work last week? If you were on leave last week please take your last working week prior to your leave) [Less than my contracted hours, my contracted hours, more than my contracted hours (please specify how many additional hours you worked last week and the reason for this)]. Have you completed any study since you have been working in your current role, if so what? How much funding for course attendance and/or paid study leave do you receive annually? What do you think is the biggest challenge to working in rural and remote nursing? What motivates you to continue to work in rural and remote nursing?
Additional demographical information required			What is your gender? What is your age? [21-24, 25-34, 35-*44, 45-54, 55-64, 65 or older].

5.2 Aim of Phase Two data collection

The aim of Phase Two was to clarify roles, responsibilities, scope of practice, preparation, working environment and working conditions for rural and remote RNs.

5.3 Participant demographics.

Questions one to 15 of the questionnaire provided demographic data, which enabled a profile of the rural and remote nursing workforce involved in this study.

5.3.1 Participants

Of the total number of participants (n=75), 88% (n=66) were female. These figures are representative of the gender division across all states in Australia with registrant data from 2017 showing male nurses represent 11.75% of all RNs currently working (11.3% in QLD and 13.25% in NSW) (NMBA, 2017).

The ages of participants were also found to be representative of the nursing population as identified from the analysis in Phase One (DoH, 2016). Data demonstrated that in 2016 31% of Registered Nurses and Midwives working in Remote Area (RA) classifications three, four and five were aged 55 and over. In comparison, the figure in major cities and inner regional areas (RA1 and RA2) is 6% lower at 25%. Figure 5.1 illustrates the age range of the participants. Two participants (2.6%) fell in the youngest category of 21-24 years and the oldest category of >65 years. The mean age group was 45-54 years (n=19, 25%).

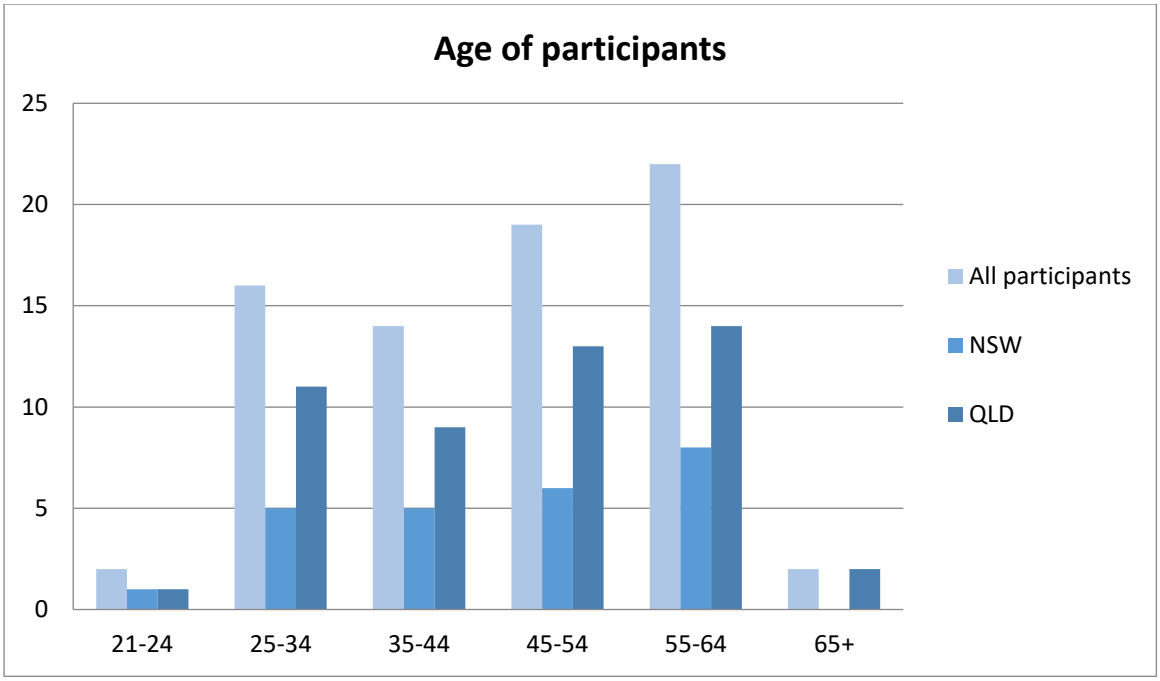


Figure 5.1 Participant ages

The study found a diverse range of roles undertaken by participants (figure 5.2). Some individuals filled multiple roles with a number of those requiring dual qualifications. Examples of multiple roles individual nurses held included, Director of Nursing/Nurse Practitioner (n=2, 3%), Registered Nurse/Registered Midwife (n=3, 4%), Clinical Nurse Educator/Registered Midwife (n=1, 1%) and Registered Nurse/Clinical Nurse Educator (n=1, 1%). Aside from the Director of Nursing/Nurse Practitioner role (which were both situated in QLD), all of the other combined/dual roles were working within NSW health facilities.

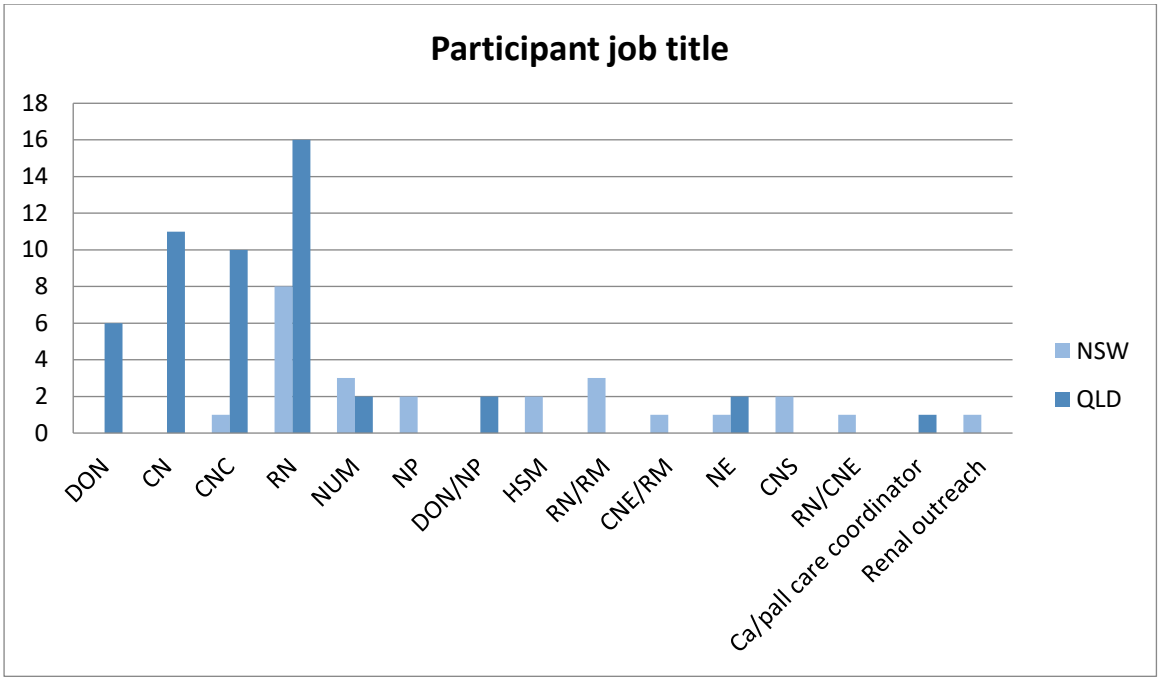


Figure 5.2 Participant job titles

The length of time participants had worked in rural and/or remote areas ranged from less than six months (n=1, 1%) to more than five years (n=50, 67%) with a mean length of time across both cases of more than five years (figure 5.3). There was a higher percentage of participants having worked for more than five years in NSW (80%) as compared to those in QLD (60%).

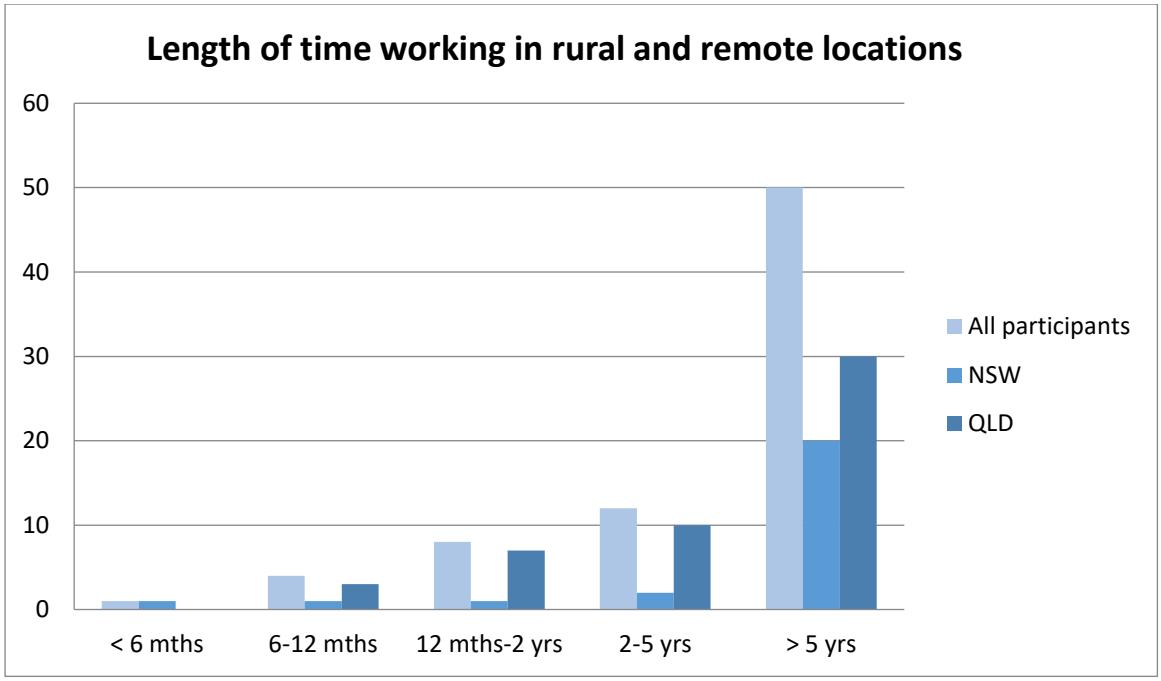


Figure 5.3 Length of time working in rural and remote locations

In addition to gaining information, regarding how long participants had been working in rural and remote areas the researcher also wanted to ascertain how transient the nurses were. Thus, participants were asked how long they had been working at their current place of employment (figure 5.4). This data was interesting in presenting differences between the two cases. In QLD there was a greater distribution in how long participants had been in their current roles across the time brackets with highest representation in the 12mth-2-year bracket (n=15, 30%) with just 22% having been in their current position for greater than five years (n=11). In NSW however, 64% of participants had been in their current role for more than five years (n=16). The overall mean for all participants was 2-5 years (n=12, 16%).

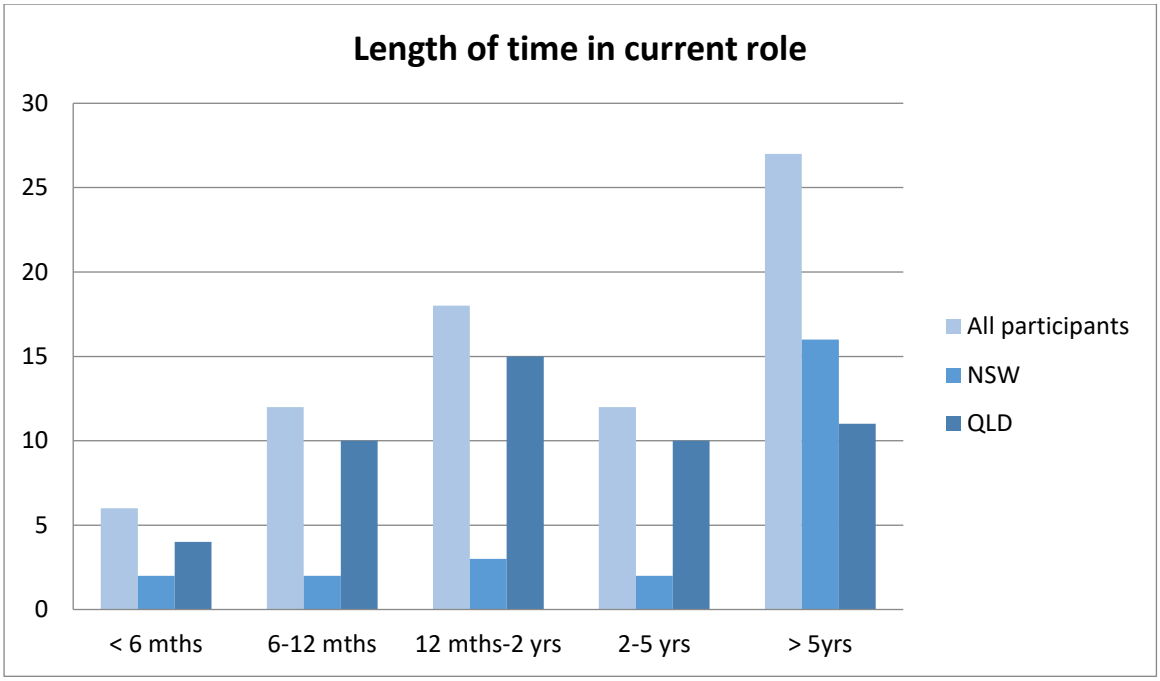


Figure 5.4 Length of time in current role

5.3.2 Employing facilities

Participants were employed in a variety of facilities across the two states (cases) with the majority working in rural hospitals (n=20, 27%), others in district hospitals (n=14, 19%), rural Multiple Purpose Health Services (MPHS) (n=18, 24%) and community MPHS (n=9, 12%). One participant (1%) in QLD worked across multiple sites. Fundamentally, participants came from 13 different employing facilities across QLD and five in NSW (figures 5.5 and 5.6).

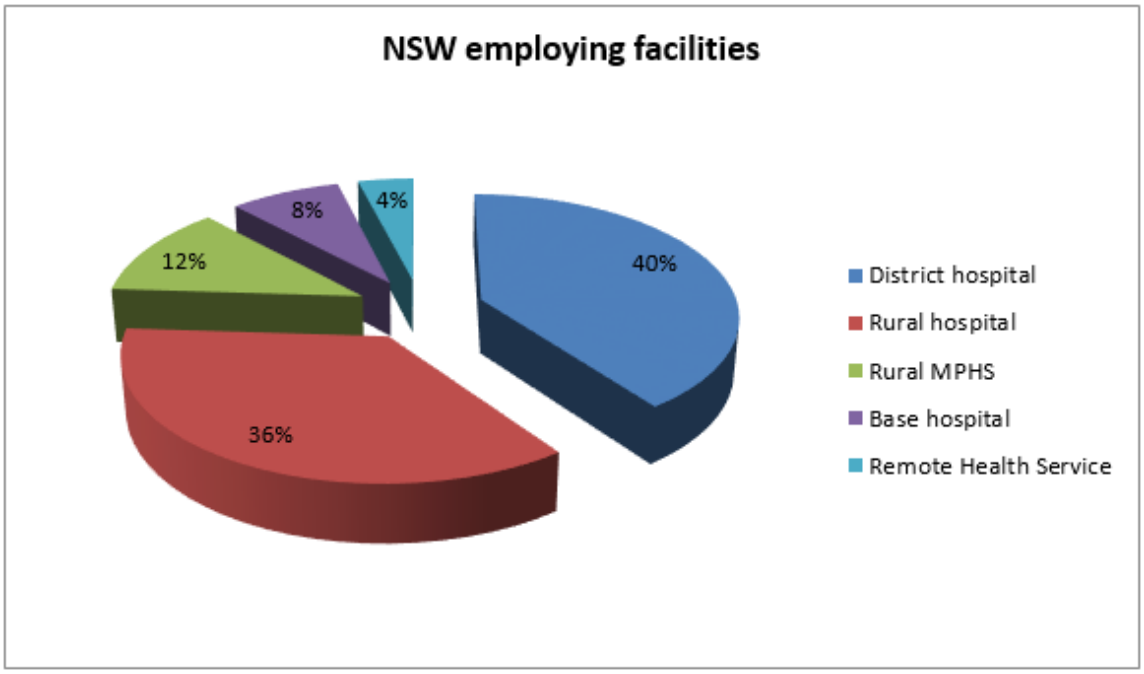


Figure 5.5 NSW employing facilities

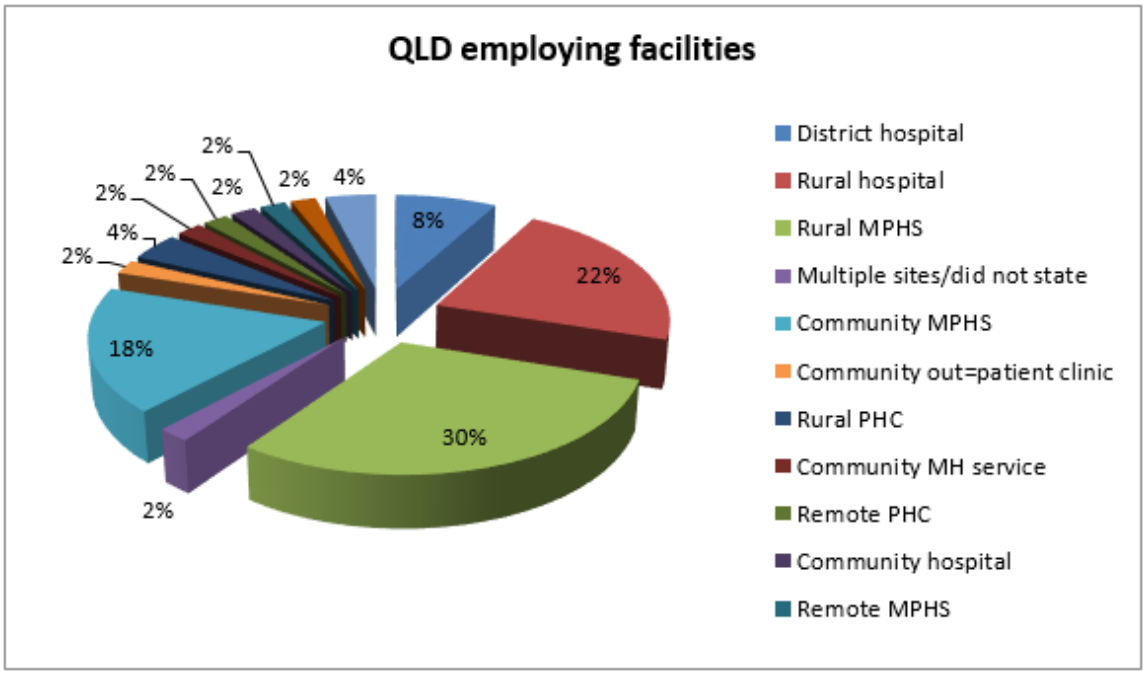


Figure 5.6 QLD employing facilities

The findings in Phase One highlighted that nurses in rural and remote areas were generalist practitioners, meaning nurses who work with whatever presents to them. Another reason for the generalist role was a lack of availability of other health care professionals requiring nurses to undertake these tasks as well. Therefore, Phase Two explored the nurses' exposure to the multidisciplinary team. Question eight asked participants for information regarding the availability of other multidisciplinary team members. Eight different professionals were selected to be included, as they had all been identified in the literature and Phase One analysis as not always being available. Questions asked about the availability of doctors, anaesthetists, midwives, psychiatrists, psychologists, mental health RNs, social workers and drug and alcohol liaison persons. Table 5.2 shows the responses for question eight.

The evidence for needing to be a generalist nurse, particularly when a multidisciplinary team was not available, was first highlighted in Phase One. This has now been confirmed in Phase Two. This is an example of a chain of evidence (Yin, 2014). First, the literature review noted the likely professionals who could be absent and need nurses to pick up their tasks. Next, document analysis in Phase One showed that these professionals are most likely to be absent requiring nurses to fill that gap. Finally, Phase Two findings confirmed this situation as being true. The evidence was found across all phases of the research, which is a chain of evidence according to Yin (2014).

Absent doctors were the profession most commonly cited as lacking in rural and remote locations. The findings in Phase One also highlighted the need for rural and remote nurses to often extend their role to work within maternal and child health (Malone & Cliffe, 2012) and mental health presentations (QLD Health Mental Health Commission, 2016). A question could be asked; are nurses still working inside their scope of practice?

Table 5.2 Availability of health care professionals

	Available onsite 24hrs a day 7 days a week		Available onsite during business hours only		Available off site via phone 24hrs a day 7 days a week		Available off site via phone during business hours only		Available via telehealth		Total participants (n=)
Doctor	32	(42.11%)	20	(26.32%)	33	(43.42%)	3	(3.95%)	11	(14.47%)	76
Anaesthetist	14	(29.17%)	12	(25.00%)	12	(25.00%)	3	(6.25%)	14	(29.17%)	48
Midwife	29	(44.62%)	11	(16.92%)	17	(26.15%)	8	(12.31%)	7	(10.77%)	65
Psychiatrist	4	(6.90%)	6	(10.34%)	9	(15.52%)	24	(41.38%)	24	(41.38%)	58
Psychologist	4	(7.69%)	10	(19.23%)	4	(7.69%)	22	(42.31%)	17	(32.96%)	52
Mental Health RN	8	(11.76%)	29	(42.65%)	6	(8.82%)	23	(33.82%)	11	(16.18%)	68
Social Worker	5	(7.81%)	31	(48.44%)	2	(3.13%)	23	(35.94%)	7	(10.94%)	64
Drug & Alcohol Liaison	3	(4.55%)	31	(46.97%)	3	(4.55%)	27	(40.91%)	8	(12.12%)	66

5.3.3 Workforce sustainability

The Phase One conclusion was that workforce recruitment and retention required further exploration. With a high incidence of burnout reported alongside nursing shortages, the researcher designed a number of questions, which would provide data around the working conditions of nurses.

The first set of questions that related to recruitment and retention in the questionnaire were questions 11 and 12. These two questions focused on how long nurses saw themselves remaining in their current position and/or rural and remote nursing. These two questions were important in light of the literature that discusses difficulties in the retention of nurses in rural and remote areas and predictions of nursing shortages. As illustrated in figure 5.7 it is evident that NSW appears to have a more stable workforce amongst participants in this study compared to QLD. In regard to the current employment, 52% (n=13) stated they intend to stay in the same job for greater than five years compared with 20% (n=10) in QLD.

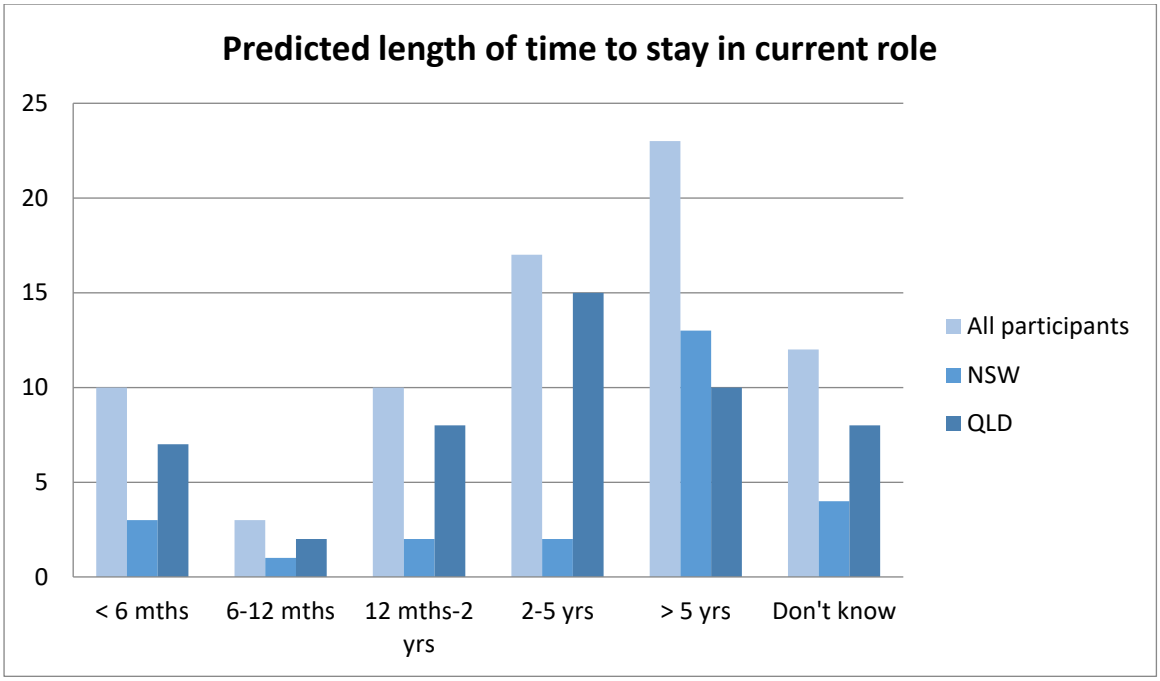


Figure 5.7 Predicted length of time to stay in current role

Whilst half of all participants stated that they would stay working in rural and remote nursing for greater than five years (n=38, 50%), 23 percent did not know how long they would stay (n=17) or indeed with their current employer (n=12, 16%). QLD had a higher number of participants in this group (n=13, 26%) than NSW (n=4, 16%). NSW figures once again demonstrated a high number of nurses who planned on continuing their careers within the field of rural and remote nursing for greater than five years (n=16, 64%).

Questions 14 and 15 explored nurses contracted hours versus the hours that they were actually working. The mean number of contracted work hours of participants was 35.3hrs (36 hours in QLD and 34 hours in NSW). In addition to wanting to know the contracted hours of RNs, the researcher also wanted to know whether nurses were keeping to those hours or working over and above them. As depicted in figure 5.8, 61.3% (n=46) of participants had worked over their contracted hours in the week prior to completing the questionnaire. Of the total number of QLD participants 56% (n=28) of them worked over

their contracted hours compared with 72% (n=18) in NSW indicating that nurses in NSW appear to be undertaking more overtime than their QLD counterparts. The researcher found this interesting in light of NSW appearing to be the less transient workforce.

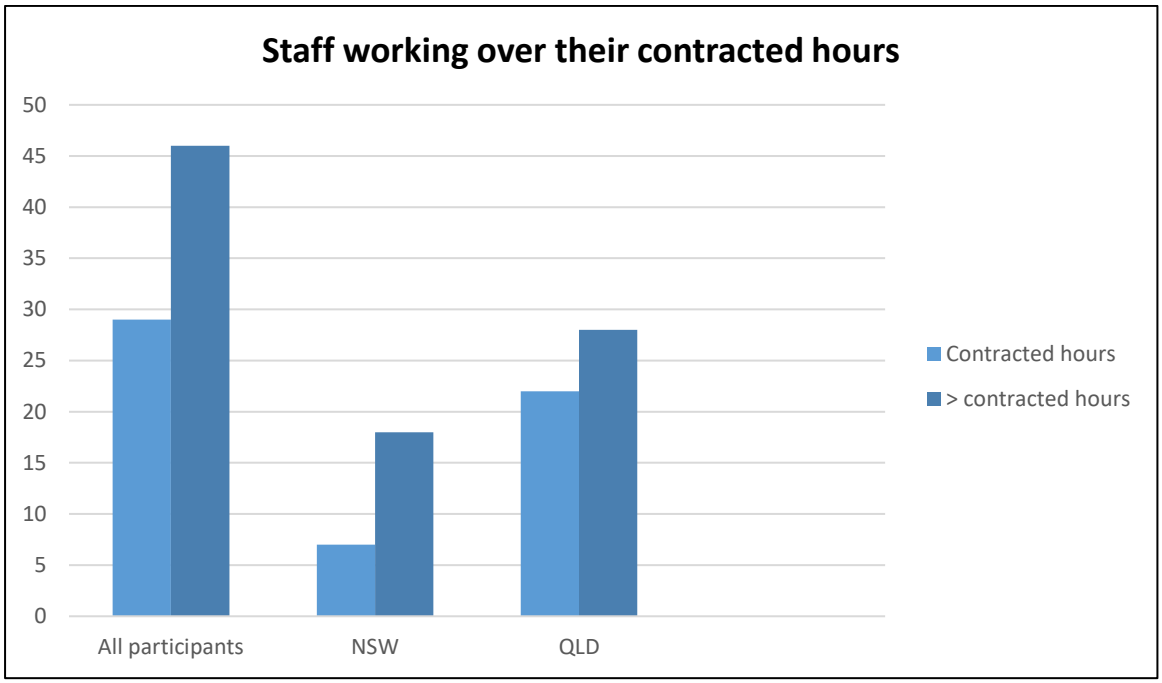


Figure 5.8 Participants working over contracted hours in the week preceding the questionnaire

5.4 Formation of units of analysis

The units of analysis within each case were formed according to their geographical location using the ASGC-RA (2006) classification system (e.g. RA3) (refer to Chapter Three section 3.4.1). For this phase, there were five embedded units of analysis in the QLD case and four in the NSW case. QLD had two participants that did not disclose their workplace postcodes; as such whilst their information was included in the wider data analysis it was not included in any cross-case analysis due to the absent RA score.

Across the two cases there were seven Phase Two participants that had a workplace postcode at the RA2 level (inner regional – small/large or other rural). Despite the study focusing on those nurses working in RA levels 3-5 these nurses had their office base in a RA2 area. From that base, they then worked across RA3-5 areas. Therefore, their data was included within this phase as it was considered highly relevant due to their direct patient care activities in these other locations. Many health districts work on a hub and spoke model whereby the hub is central but has several rural and remote facilities in a range of locations, thus for Clinical Nurse Consultants and nurse specialists; whilst they had their office base in the inner regional hub, they worked clinically within the facilities located in geographical locations RA3-RA5 (figure 5.9).

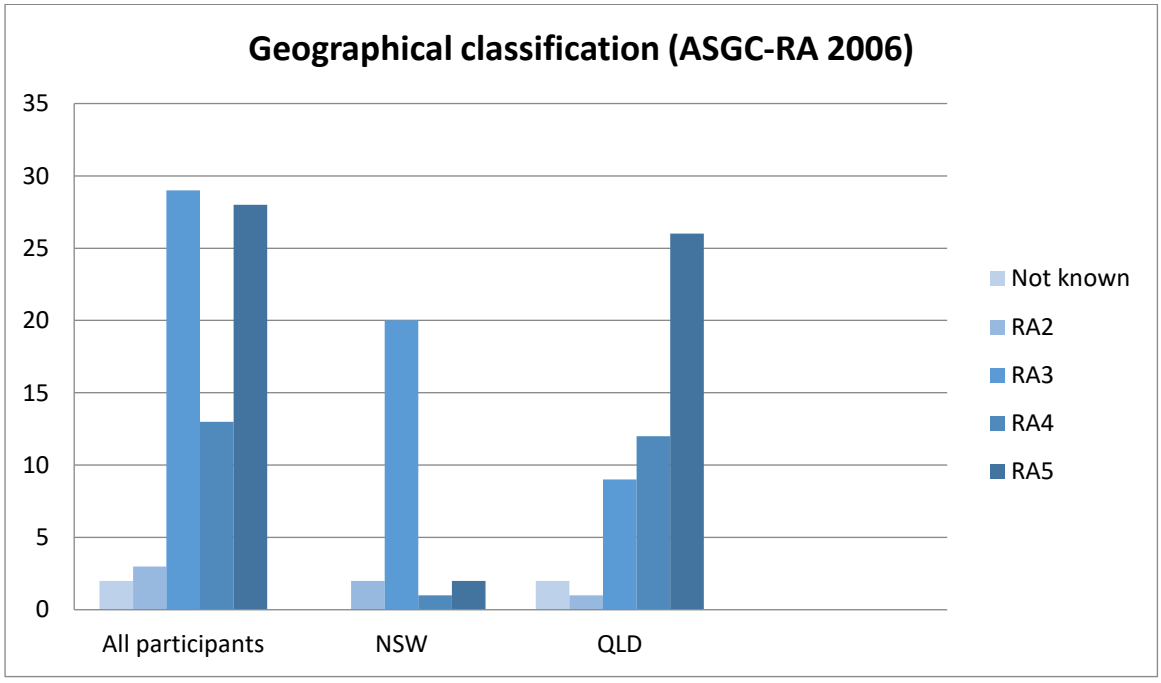


Figure 5.9 Geographical classification of participants

Figure 5.10 displays information about the units of analysis for each of the cases. As depicted, the representations of participants from QLD to NSW were considerably uneven.

This difference was seen in the total number of participants and the difference in numbers of participants within each unit of analysis (RA). Geographically the two States are different; QLD is much larger than NSW being Australia's second largest State (QLD Health, 2014a). Rural and remote areas account for 70% of QLD's land surface area; resulting in greater distances between health services with the average distance between hospitals and community clinics being 90km (QLD Health, 2014b). This data accounts for the higher numbers of participants in categories RA4 and RA5 in QLD as compared to NSW.

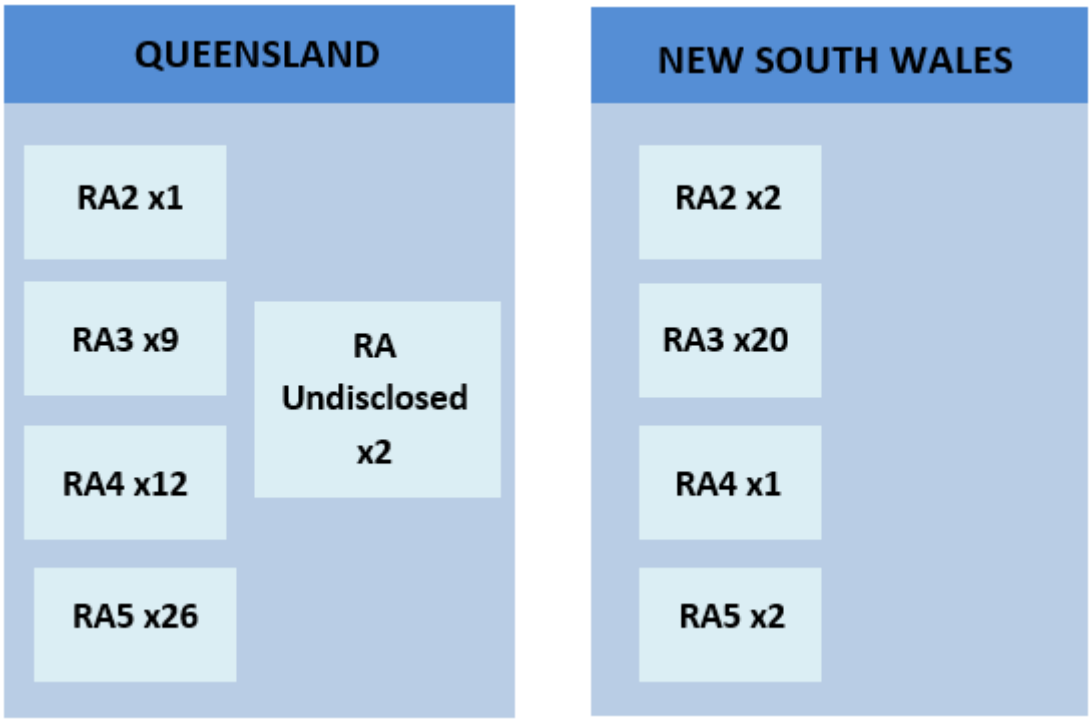
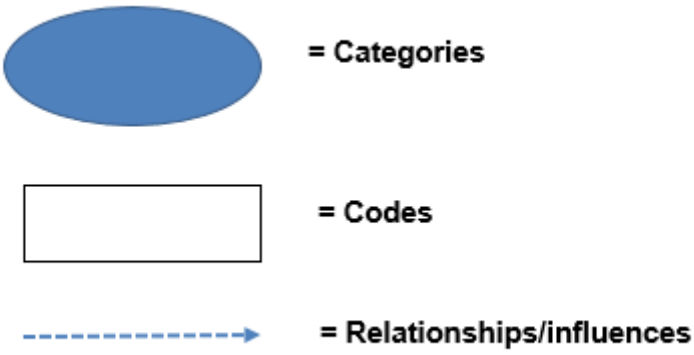


Figure 5.10 Phase Two units of analysis

5.5 Analysis of open-ended questions

This section presents findings from open-ended questions on the questionnaire. Appendix E provides an example of the content analysis used to gain these findings. The first analytic

task was to analyse all participant responses through coding. This provided the researcher with a general overview of the findings. A mind map depicts the findings for each research question, which illustrates the categories and codes gained from the analysis. Categories are highlighted using blue ovals, whilst codes are denoted as rectangles. The arrows demonstrate links and important relationships.



To determine whether there were any differences between States or geographical areas, the second analytical approach was to map the codes to each unit of analysis. This formed the basis of the within and cross-case analysis. An example of this analytical process is examining data to view whether the same codes regarding preparation were applied to the findings from nurses working in case one (QLD) compared to case two (NSW).

To remain true to Yin's approach (2014) the Phase Two findings first presents each research question to confirm that the secondary research questions asked were answered (or not). Next, sections 5.5.1 - 5.5.5 presents the findings of advanced analysis across the two cases.

5.5.1 What are the roles and responsibilities of nurses working in rural and remote areas of Australia?

The codes found from this data have strong inter-relationships. The analysis of questionnaire responses relevant to research question one revealed three main categories:

- Practice;
- Expectations; and
- Isolation

These categories and subsequent inter-relationships between these categories (figure 5.11) are now presented.

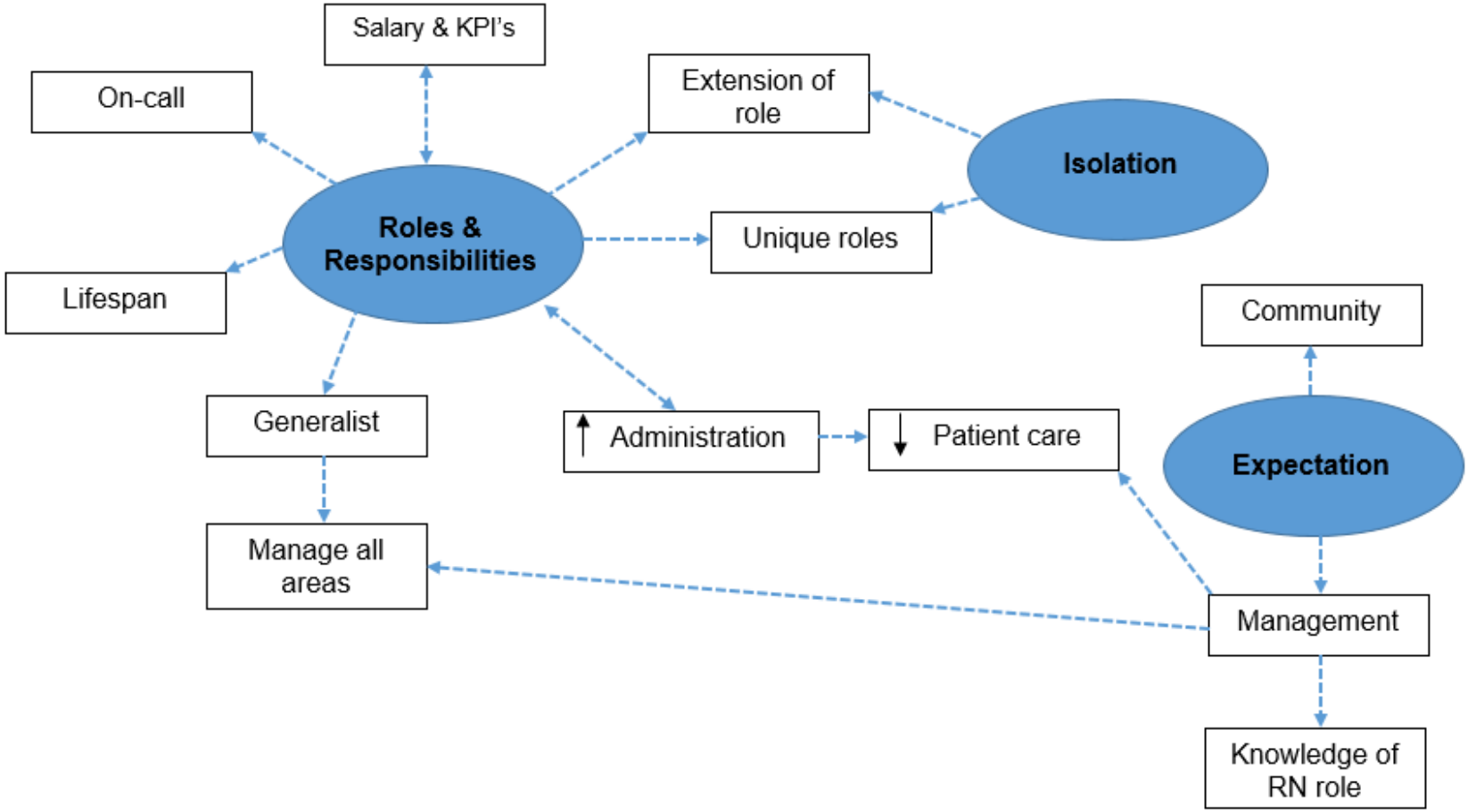


Figure 5.11 Overview of findings for RQ1

5.5.1.1 Practice

Key findings from this phase confirmed previous findings in Phase One. The first finding was the need for broad knowledge and skills in rural and remote nursing. Nurses referred to themselves by a number of commonly recurring titles including, a 'generalist', 'jack of all trades' and doing 'everything and anything'. These participants worked with all ages across the lifespan, which differs to those nurses working in metropolitan and urban areas who tend to work with a particular age group. (CRANA*Plus*, 2015). The majority of participants agreed that a rural/remote nurse's role requires a generalist skill set rather than a specialist collection of skills to manage and/or treat whatever comes through the door. As participants said:

> *"In rural nursing you do not just do one role. You are a "jack of all trades" and it is expected that no matter where you work, if another area requires help, you are there" (NSW20).*

> *"Anything that comes through the doors of a city well-staffed hospital can come through the doors here & we have one RN & one EN on with one DR on-call … At this time, we are coping with A&E [ED] as well as inpatients (up to 9) with effectively two nursing staff with one RN on-call. You may have a chest pain in one bed and a febrile child in another when the QAS ring saying they are bringing in a snake bite! We only have 2 beds, all three need immediate care, two patients want to go to the toilet - this is a challenge" (QLD37).*

All participants noted the generalist nature of a role requiring a generalist skill set. However, some participants believed there was a need for the generalist to possess specialist skills as well. As QLD36 said:

> *"From planning pregnancy, antenatal, paediatric, adolescent, women's health, men's health, aged care and palliative care and everything in between — including emergency presentations — a remote area nurse is required to*

respond appropriately to any and all presentations. A generalist with specialist skills, in fact" (QLD36).

This response stimulated more questions, which included:

- What were the specialist skills?
- How can skills be obtained and maintained?

Participants described undertaking many roles. During analysis, two separate groups were coded: advanced roles and responsibilities, and roles unique to rural and remote. Advanced skills for the purpose of this research were defined as those skills not obtained at an undergraduate level, but within the regulated scope of practice of RNs. These skills are not context specific. Such skills included; cannulating and venepuncture. Whilst rural and remote nurses may hold these skills, they were skills that could also fall into the remit of a nurse within a larger urban or metropolitan area and as such were not considered unique to rural and remote practice.

The second group were those roles unique to the practice of a rural and remote nurse due to the context in which their practice is situated. Such roles included taking x-rays, coordinating and participating in retrievals and medical evacuations, participating in telehealth, working in the role of ambulance officer, vehicle maintenance and cleaning. The researcher made the decision to include retrievals and medical evacuations as such evacuations in rural and remote facilities are distinctly different in that the nurse is isolated, often alone without medical support or at the least have reduced resources to manage the patient's condition. Compounding the isolation is the length of time evacuation may take, during which the nurse is responsible for managing the acutely ill patient with potentially life-threatening or life limiting conditions. As was explained:

"Retrieval [by RFDS] depends on the availability of a plane and may take 2-8hrs to uplift" (QLD61)

On-call responsibilities featured frequently in the data. There was a mix in responses with some nurses describing on-call responsibilities as part of their role with others implying that these on-call responsibilities were often outside of any sort of contractual agreement, *"expectations and unofficial on-call 24/7"* (NSW18). Two quotes below display this unique responsibility for nurses to be on-call.

> *"Having to act as Ambulance Officers as we have no ambulance service in our facility. Registered Nurses in our facility have to participate in an on-call roster to ensure that there is enough staff to cover ambulance services, x-ray and some clinical areas that junior nurses are not yet qualified to do" (QLD10).*

> *"Many sites have a roster for on-call, but my roster is 'constant availability'. On-call 24 hrs day, 7 days a week and [the] only nurse onsite to respond to recalls" (QLD36).*

Extended administrative tasks also changed roles for nurses, subsequently decreasing direct patient care. This finding was in contrast to Phase One findings where policies and guidelines recommended administrative support. As such, the researcher questioned whether this failure to implement recommendations at an organisational level was a fiscal issue.

> *"Too much time is spent on paperwork and administration instead of looking after patients" (QLD69).*

This failure to provide administrative support to facilities could see organisations exacerbate existing retention issues. As participants described:

> *"Non-nursing duties impacting on my clinical workload as a remote emergency/ward nurse was the primary reason for me to seek employment out of such an intense clinical load" (QLD50).*

Questions arose for the researcher regarding administration. Were participants considering administration to be inclusive of traditional nursing documentation or were these tasks ones usually performed by a non-clinical member of staff?

The first rival explanation began emerging explaining how participants defined 'administration', which may or may not reflect increased non-nursing administrative tasks. Thus, Phase Three would explore this further. As one participant said:

> *"The amount of clinical care/management/administration/education is dependent on whether I am in charge of a shift or if I am doing the role of an RN only. There is a lot of paperwork that we do here, including computer work that in a bigger centre would be attended to by admin staff. The phone seems to ring incessantly at times, which can make things very busy and stressful. (QLD55).*

5.5.1.2 Expectations

Many of the findings were grouped under the term 'expectations'. Participants linked increasing levels of administration to management expectations. This was described as:

> *"We are increasingly needing to undertake administrative tasks. Sometimes I joke that the patient gets in the way of the administration. This is met by our managers simply telling us to see less patients in direct care in order to do the tasks they ask of us, including meeting KPIs. I think the general public, including governments, would be shocked to see how little direct care is spent with patients. I joke that I would love a '60 Minutes'; crew to follow a nurse for a day to see exactly what they do and how overworked they are." (NSW30).*

> *"Working in Sole Practitioner sites or even a site with an RN and an EEN, the expectations from Regional Centres to respond to urgent correspondence is outrageous. With some facilities not having administration staff or*

cleaning/operational duties the expectations on nursing staff to perform these duties is great" (QLD05).

Participants perceived organisational expectations as unrealistic, arguing their KPIs aligned with those nurses working in metropolitan areas, yet roles differed significantly. As one participant described:

"Lack of understanding from DON and executive teams as to how austere conditions are and what we actually have to do to attend work that is just assumed happens by some other service. Such as: cleaning of accommodation on arrival and departure; checking oil/servicing/ air pressure in vehicles that come from FLEET services; pulling notes and registering patients on a different number of databases before even being able to assess the patient and yet having the same KPIs as nurses within urban environments" (QLD50).

According to this participant, there is a perceived lack of understanding of managers as to what nurses undertake on a daily basis. Even management located in a rural or regional area may not be familiar with practice in remote areas, which is under their portfolio. The researcher questioned what effect this had on organisational culture, the motivation of the nurse to continue undertaking such tasks and how this affects retention of nurses.

In addition to the expectations by managers, participants also noted community expectations. As stated:

"Local Community people also expect to attend the clinics at whatever time of the day/night they wish as they see services as being 24/7 for any reason e.g. a band aid, Panadol." (QLD05).

In the instance below, the nurse clearly goes over and above her role to adapt to the challenges that the austere environment presents her with, saying:

> *"I generally see patients within the community from a vehicle. If they need further assistance … an offer to drive them to a clinic is given in which clients generally accept this. There is no public transport or other ways for clients to get to the clinic in extremely austere conditions, clients often don't want to call an ambulance (just for a lift) as they know the nurses are already working in the clinic and it is not an emergency. The most kind, polite and human option is to drive these clients to the hospital that generally takes <5mins drive within communities and always within business hours" (QLD50).*

The issue as to how the community influences the role of the RN is provided in section 5.5.4

5.5.1.3 Isolation

Having only one nurse available was another area requiring further exploration. Questions arose for the researcher about the wellbeing of the nurse and the overall safety of practice. The literature review and Phase One analysis noted the increased risk of sole practitioners becoming exhausted and/or burnt out with the potential for mistakes to be made under such challenging conditions.

In summary, contextual conditions affect all aspects of rural and remote nursing practice. Rural and remote nurses hold unique and specific skills, which are at times advanced. Whilst, rural and remote nurses are generalists, caring for all ages across the lifespan and working across departments, specialist skills are also required. Nurses believe there is an inequity compared to their metropolitan colleagues with all nurses having similar or even the same KPIs.

Nurses reported concern over additional, non-nursing roles taking them away from direct patient care. Finally, additional expectations of the nurse by the community and management created further complexity of practice by placing increased demands on nurses, which may or may not be within the scope of practice.

5.5.2 How do rural and remote nurses work within their scope of practice?

The analysis for research question two, asking if nurses in rural and remote areas work within their scope of practice, revealed four main categories, including:

- limited resources;
- scope of practice;
- expectations; and
- organisation.

These findings highlighted the difficulties of remaining within scope of practice due to limited support and resources. This section also presents the findings of strategies to enhance working within scope of practice.

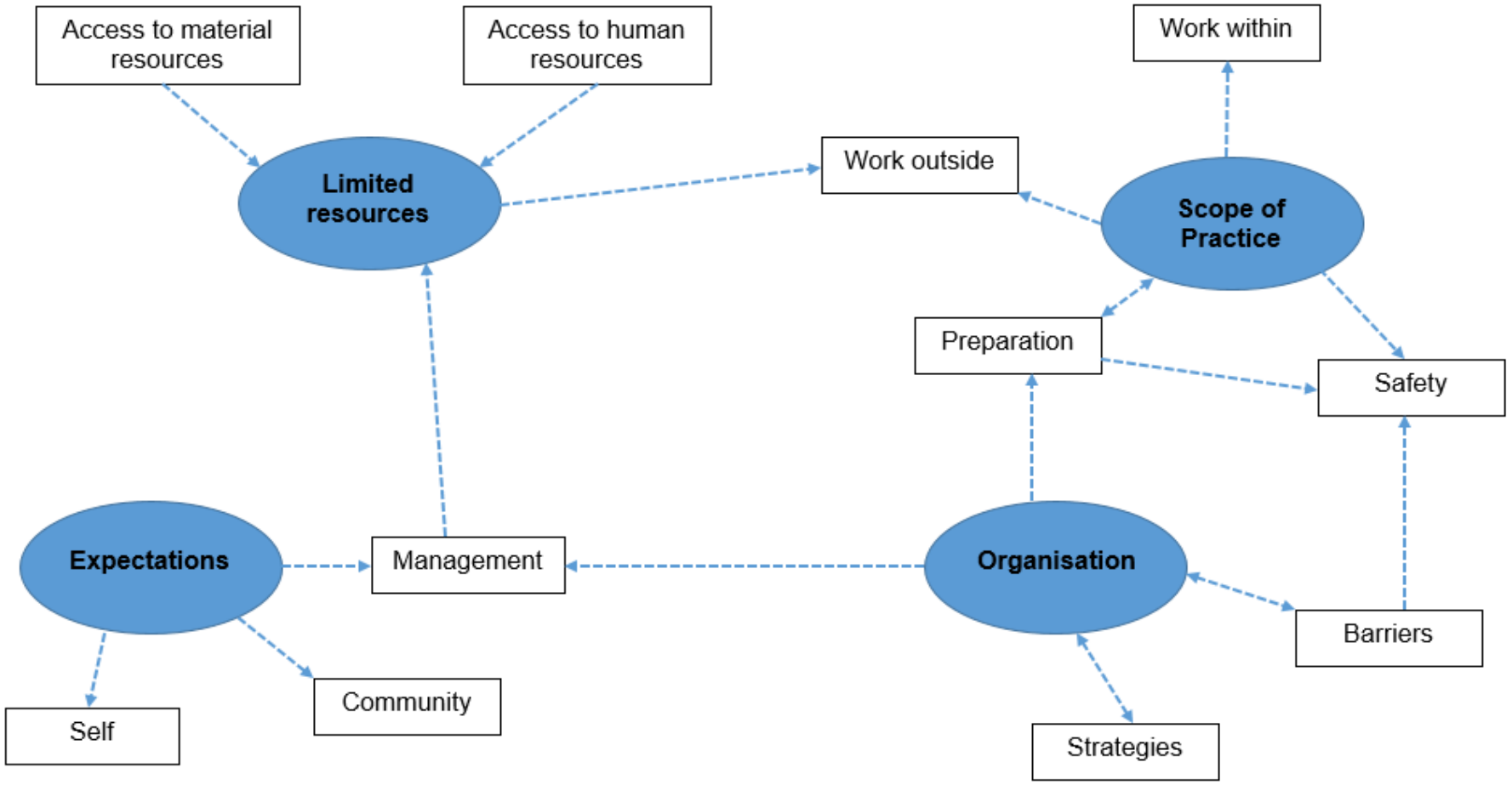


Figure 5.12 Overview of findings for RQ2

5.5.2.1 Limited resources

The most commonly noted barrier to working within scope of practice was limited human resources. The excerpt below from NSW30 acknowledges the difficulties in recruiting medical and/or specialist staff to rural and remote areas. This results in nurses taking responsibility for the gaps in the provision of healthcare in these situations. NSW30 states:

> *"Due to the inability to attract and maintain specialist staff in rural areas, quite often nurses are taking up this slack and being required to push their scope of practice to their limits. He [the anaesthetist] did not understand how to adequately care for her …The result was I felt like I was both physician and anaesthetist explaining what needed to be done and fighting for the best patient care" (NSW30)*

The excerpt below also implies that nurses are making medical decisions as to the treatment and management of patients in the absence or inexperience of doctors:

> *"We often need to make decisions far beyond what we should … due to lack of workplace resources (Specialists and staff in general). Those in tertiary hospitals have support on-call 24 hours a day" (NSW30).*

These situations show the vulnerability of nurses working in rural and remote nursing to remain within their scope of practice.

5.5.2.2 Organisation

Data showed that organisations have a role in whether nurses work within or outside their scope of practice. As was stated:

> *"In my experience, feedback has not been appreciated, and people are left to 'just deal', with comments [from management] like 'you worry too much', 'you're not as accountable as you think you are'. As for how did I overcome these issues? I have not. It is still a battle. My relationship with management has*

deteriorated with each conversation as I have tried to get others' support" (NSW71)

This particular participant's strategy in managing this situation was to raise concerns with the organisation. The organisation has accountability to address issues and it is a concern when nurses do not feel supported when reporting such issues. Such barriers to open communication about working within a scope of practice can have negative effects for safety and retention issues.

5.5.2.3 Scope of practice

Some participants reported an insufficient legal framework for extended scope of practice. Without a legal framework, nurses are exposed to litigation should they choose to participate in an activity which they are not qualified to carry out. One participant summarised other participants' concerns when stating:

"There is not a good legal framework for the expected scope of practice. I do not always tell new staff how things get done because if they got caught, they would have to say that is the way I was told it is done" (NSW49).

5.5.2.4 Expectations

Participants noted the expectation for nurses to work outside their scope of practice. An example mentioned from participants from the two states was the expectation of the organisation for nurses to undertake the role of midwife in their absence. As one nurse stated:

"There are several midwives amongst the staff, but QH policy has changed to where the non-midwives [RNs] do a non-midwife workshop and are to attend to patients unless a midwife is working that day" (QLD55).

This excerpt does not provide any detail regarding the expected level of care following the completion of the short course. Therefore, it is difficult to draw conclusions as to whether

this course would be adequate for nurses to gain sufficient knowledge and necessary skills. It is interesting to consider this framework and the short course that permits nurses to extend their scope of practice.

In summary, nurses in rural and remote locations have difficulty remaining within their scope of practice due to both the lack of human resources and the expectations of the organisation. Alternatively, it could be questioned if nurses are using appropriate document guidelines, policies and frameworks to assist them in making decisions.

Following analysis, the researcher became aware that Phase Two had gathered limited data around how nurses work *within* their scope of practice and which skills were considered an extension of their practice. This was an important limitation to Phase Two and therefore, when planning Phase Three, the researcher aimed for a greater in-depth exploration of this topic.

5.5.3 How do rural and remote nurses prepare for their roles and responsibilities in rural and remote Australia?

The overall aim of the study included how registered nurses prepare for their roles and responsibilities in rural and remote Australia. The findings related to this aspect of the study revealed four main categories, including:

- PD entitlement;
- CPD;
- experience; and
- self.

The role of the organisation was seen to filter throughout each of these four categories and as such is not discussed independently. As with previous questions, Figure 5.13 illustrates codes and categories with their interconnecting relationships.

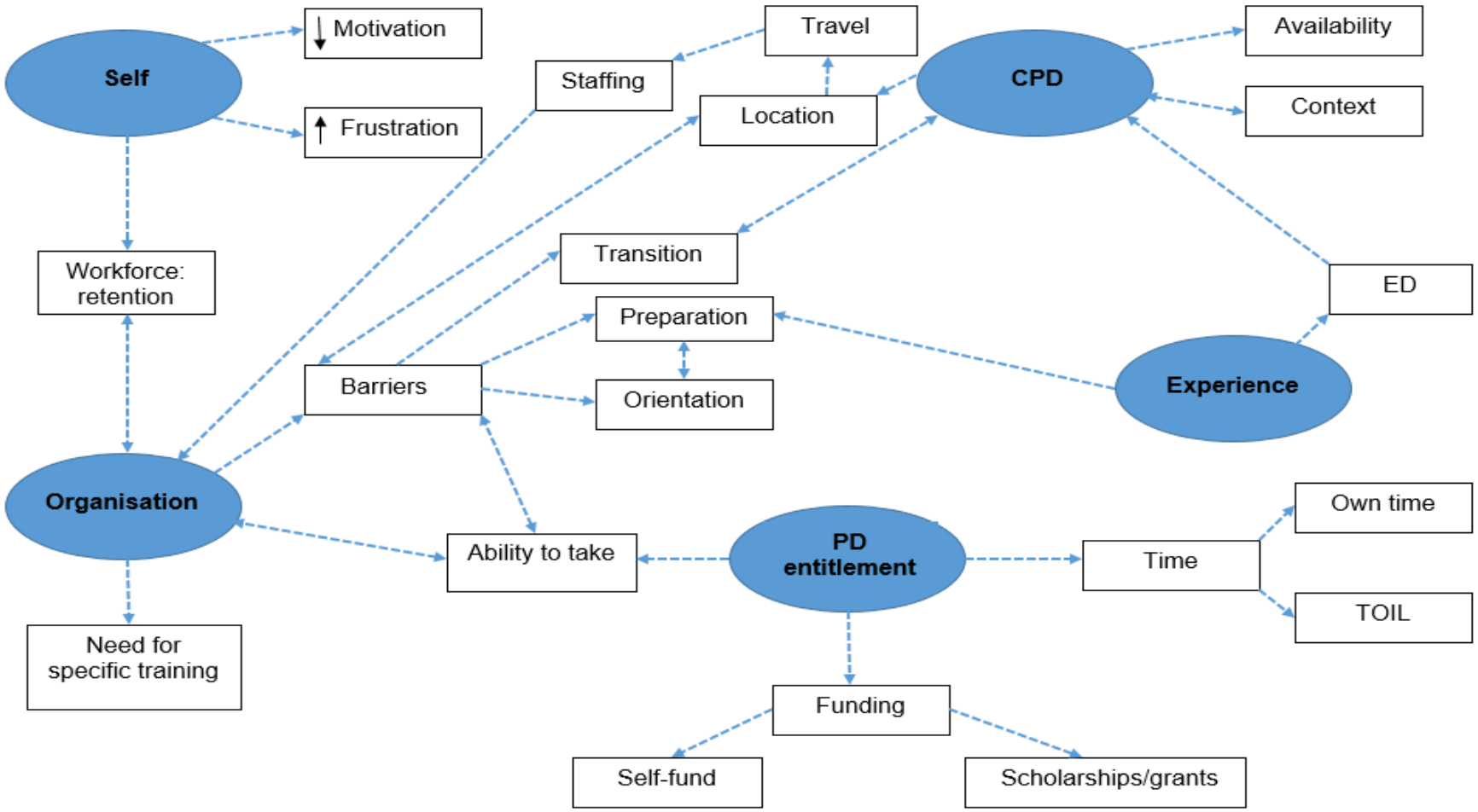


Figure 5.13 Overview of findings for RQ3

5.5.3.1 Entitlement to professional development

Out of a sample size of 75, 26 participants (54%) knew about their entitlement to engage in CPD. The questionnaire gained further information on:

- Whether nurses are taking their entitlements, and if not why not?
- What is currently being undertaken to prepare nurses for their roles and responsibilities?
- What, if anything, did participants consider as essential in preparing for roles of rural and remote RNs?
- Other preparation undertaken aside from 'CPD'?
- What issues did they have, if any, about preparing for practice?

The two excerpts below indicate the need for nurses to self-fund their professional development (even if they received allowances for education/training). Funding aside, leave was also noted as problematic by participants. As stated:

> *"No, & I would like to [complete study since working in current role], but told the budget is too tight; I'll have to pay for it myself & claim money back at end of tax year. It is a struggle to get professional development leave approved, even if I pay for all course expenses myself" (QLD46)*

> *"All courses I have completed/undertake have been paid for by myself due to lack of funding which was ceased this year [2016]" (NSW20)*

Despite over half of the Phase Two participants being aware of their entitlements to professional development leave, many are still unable to take this due to operational reasons. This is predominantly due to difficulties in staff replacement. As these participants said:

> *"10 days paid study leave - I have never taken 10 days in all my years remote. Difficult when you are doing for example a 2-day workshop twice a year [due to lack of staff]" (QLD64)*

> *"Failed pharmacology paper for Master Nurse Practitioner … due to inability to obtain relief to present oral viva" (QLD61)*

Participants reported organisations requesting that nurses undertake courses in their own time and receive time owing in leave (TOIL). However, nurses report difficulties in taking back accumulated TOIL due to inability to replace them. Thus, this would not appear to be an attractive option. As one participant stated:

> *"Requests for this [allocated 2 weeks professional development leave] are almost never granted and we are always encouraged to attend courses in our own time or given TOIL rather than access the professional development leave" (QLD47)*

Analysis of Phase One found that professional development funding and leave was an incentive to recruiting and retaining nurses to work in rural and remote areas. As such if organisations are not encouraging professional development, what impact is this having on staff retention, staff morale, feeling valued and the creation and maintenance of a skilled workforce? As one participant said:

> *"Intubation course to assist with my new role [in] ED- paid for by self, attended in own time as education days not given... Learning has not been encouraged" (NSW71)*

Questions may also be raised regarding patient safety if nurses are not skilled to the required level for their post. However, the researcher acknowledges the challenges facing organisations to replace staff when the staff take leave as pointed out by participants in this study.

5.5.3.2 CPD

Phase One demonstrated large amounts of mandatory training that nurses now have to complete each year to comply with organisational safety and quality measures. As one participant said:

> *"I find a lot of the mandatory training is basic nursing that gets rehashed over and over and the training we really need is seldom addressed" (QLD39)*

The amount of mandatory training and how this affects other development activities, was highlighted amongst participants. Participants noted mandatory training was stressful, and yet there was a lack of detail about why the participants experienced this stress. The researcher questioned whether this was due to the amount of mandatory training and ability to complete it, or whether it was the inability to undertake anything other than mandatory training. One participant wrote:

> *"Emergency refresher, basic disease/treatment of the many more prevalent illnesses we deal with [need education on]. Otherwise we are bombarded with massive amounts of education that are compulsory due to being rural, which can make working in this area extremely stressful" (QLD55)*

Location of training was another issue for participants. Attendance can be a challenge due to accessibility. Nurses reported "*no ability to maintain skills locally"* (QLD41). Many participants noted vast distances that they travel to attend development activities with increased associated travel and accommodation costs. As explained:

> *"Sometimes we need to go to the hub 180km away to do basic education" (QLD37)*

> *"We are 'offered' opportunities to attend courses however it means travelling 7-9 hours to receive education" (NSW20)*

Phase One explored the availability of local courses for rural and remote nurses and concluded that whilst the CRANA courses appeared excellent in terms of content and context, there were too few locally to be of benefit to the majority of nurses. Participants in Phase Two also supported CRANA courses. However, course places were reported to fill quickly, with insufficient local courses provided. As participants said:

> *"CRANA has it well covered in the offering of their courses, it's just getting to them nearby that can be difficult" (QLD39)*

> *"The courses I wanted to attend are full" (QLD61)*

Whilst the majority of participants were negative about professional development opportunities stating that they did not get *"equal opportunities to their metropolitan counterparts"* (NSW22) there were some positive comments (particularly amongst QLD participants). Incentive packages appeared well received. As was said:

> *"You are given opportunities to professionally develop that you wouldn't be able to in bigger centres" (QLD06)*

> *"I am able to choose my own professional development training under the RANIP package plus mandatory training is funded by the district, so I feel I can keep my skills up to date quite easily. I was already highly qualified and skilled before securing this position, so I just need to keep updated" (QLD36)*

The comment above from QLD36 was an interesting one, reporting that they found it easy to keep updated and attend training. However, this participant did not provide further detail as to what resources were available and how they were accessed. The researcher noted that this particular participant claimed that she was highly skilled before working in rural and remote nursing. The researcher therefore questioned whether there was a link to preparation prior to entering rural and remote nursing. Was this an area that required extensive experience in an urban or metropolitan setting and if so, what were the areas in

which nurses required experience to prepare them for working in these rural and remote facilities? What difference does this make to performance and/or 'survival' and subsequent retention of rural and remote nurses that a new graduate or novice/beginning practitioner (Benner, 1984) may not possess?

Participants focused greatly on preparation for working in emergency with specific courses emphasised including, the Remote Emergency Course (REC), Trauma Nursing Core Course (TNCC), Maternity Emergency Course (MEC) and First Line Emergency Care Course (FLECC). As the participants noted:

> *"All RNs working in remote should have some emergency skills - whatever role they are filling; the occasion will arise when they need to help in an emergency" (QLD57)*

> *"I think having a triage course and some particular emergency training would benefit me greatly. I have done most of my nursing in teaching hospitals and it's a huge adjustment to work in a rural environment even though I'm considered a senior nurse" (QLD62)*

Many participants highlighted the transition to rural and remote being an area in which preparation was missing. One participant stated:

> *"Transition course/education preparing metro trained nurses for rural and vice versa [is needed]" (QLD03)*

5.5.3.3 Experience

A range of perceptions about required "experience" was uncovered. First, the example of participant QLD62 was interesting as this nurse was considered 'senior' according to her experience in larger centres, yet she still wanted context-based emergency training. This highlights the significant transition between working in rural/remote from urban/metropolitan and vice versa.

However, many participants highlight certain additional experiences that are useful prior to working in the rural/remote environment. This included previous emergency department (ED) and intensive care unit (ICU) experiences. As stated:

> *"It would be good to try and work in a bigger ED [before coming remote]" (NSW19)*
>
> *"Tertiary ED experience/ICU experience [need to have]" (QLD27)*

Participants stated not only the type of experience but also the amount of experience was important prior to working in a rural or remote environment. The excerpt below refers to inexperienced RNs not having sufficient exposure to clinical experiences to work independently in these environments. As one participant said:

> *"Working independently in an unsupportive environment requires a level of training which only comes with exposure to different clinical situations and is often not found in Junior RNs" (QLD43)*

This issue of experience was questioned by the researcher on reviewing the *Pathways to Remote Practice* document (CRANA*Plus*, 2015) in which readers are shown a trajectory moving remote nurses through from novice to expert practitioners (Benner, 1984). Findings from Phase Two purport that it is not appropriate for rural and remote practitioners to be defined as an 'expert' based on the context of practice alone. If the transition to rural and remote practice is indeed so big, then where do nurses sit on Benner's theoretical trajectory? The decision was made to explore further in Phase Three the transition of nurses to rural and remote practice and to identify what constitutes "good" experience.

The second area for training highlighted by participants focused on organisational and non-clinical aspects such as personality training, aggressive behaviour management and peer support. Participants stated:

"Personality training to assist working better in small teams in small towns [is needed]" (QLD68)

"Without aggressive behaviour management training or security guards onsite [it] is very unsafe!" (QLD52)

***"**4WD training that is unavailable … we drive out on unsealed roads as our primary work" (QLD50)*

5.5.3.4 Self

Of particular concern to participants were issues of safety due to the context of practice. Participants had numerous concerns regarding context and the influences these have on their additional preparatory needs to remain safe. Firstly, there are many small communities without a police presence. Secondly, safety issues related to environment such as unsealed roads create a high risk. Training to minimise and prevent risk for those in rural and remote nursing can differ to those in metropolitan areas. These areas are significant and presented further in section 5.5.5.

In summary, the findings from data addressing research question three highlight issues inhibiting rural and remote nurses undertaking professional development. A significant barrier noted by many was lack of leave entitlements due to workforce issues, mainly the inability to replace them with other staff during their absence. Additionally, some individuals do not want to self-fund educational activity and some are unsuccessful at gaining grants or scholarships to fund training. Participants reported their concern about their wellbeing, safety, unsafe practice and personal safety needs. The issue of patient safety in having an upskilled and knowledgeable workforce was also noted. Lack of available local, context-specific courses were highlighted as a barrier to professional development. The need for education in emergency skills, organisational training and transition programmes were suggested. Experience was considered of paramount importance to prepare for practice in rural and remote areas, however whilst someone may

have many years of experience, it should not be assumed that this can be transferred easily to rural and remote environments.

5.5.4 Why and to what extent are eco-social influences so important to the scope of practice in rural and remote Australia?

Research question four aimed to establish what eco-social influences affected practice including population size and culture, the community's main income source, and availability of human and material resources. This secondary research question is particularly important as it aligns to Yin's (2014) principle that the social and political context should always be considered.

Content analysis revealed five main categories, including community, culture, professional boundaries, challenges and support. The culture of community and sub-cultures within the community created challenges for nurses. This meant that nurses had to clearly define professional boundaries and gain support. Figure 5.14 illustrates codes and categories generated for this question and their interconnecting relationships and influences.

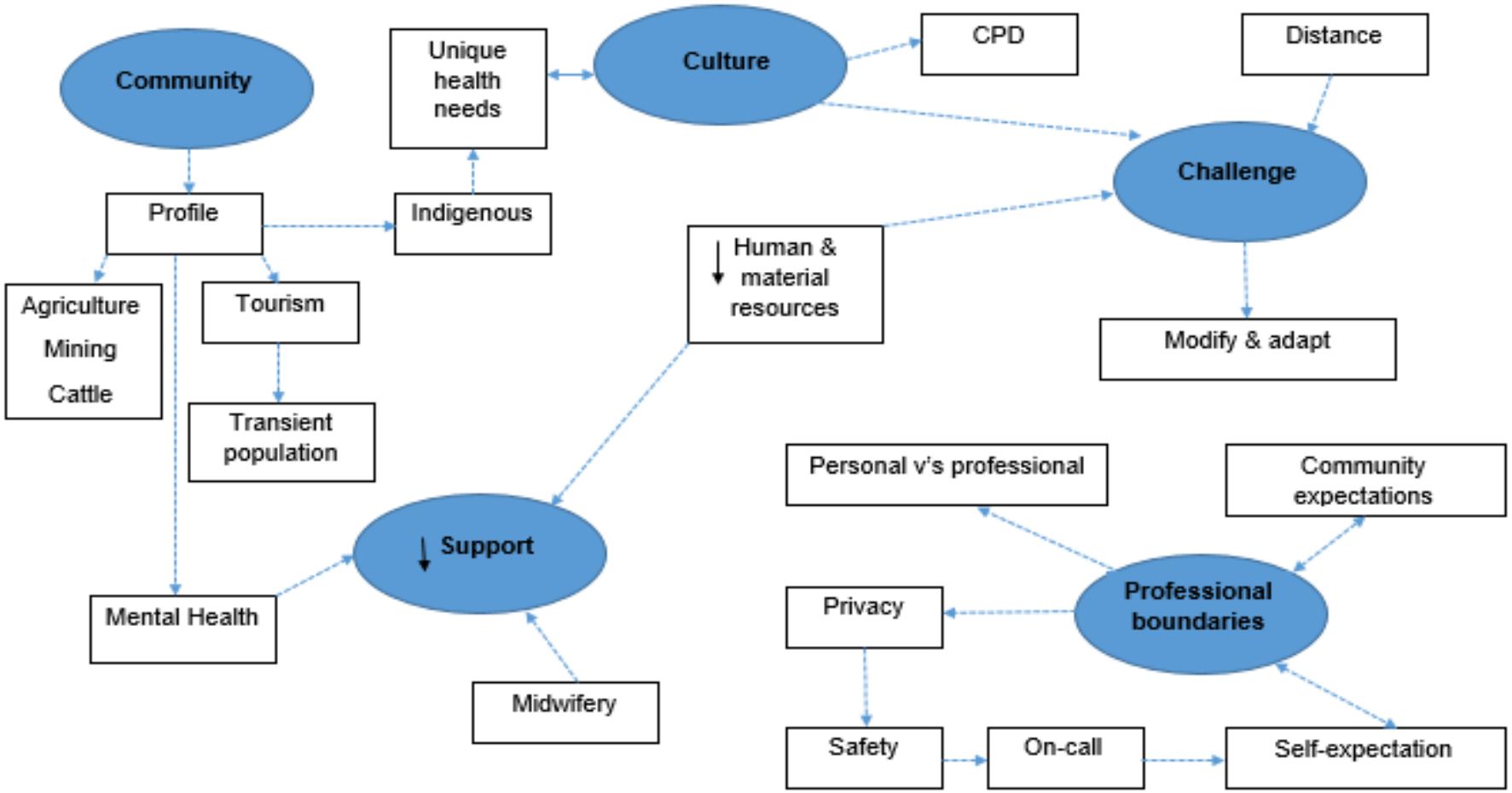


Figure 5.14 Overview of findings for RQ4

5.5.4.1 Community

The economical source of income influenced the type of community. Predominantly agriculture, closely followed by Indigenous communities, mining and cattle were most common. There were differences between the two cases as presented in section 5.6.1. Communities ranged from small *"100 people in town and 150 in the district"* (QLD15) to much larger communities. Of particular interest were those communities that had tourism as a major funding source and those in which seasonal variations occurred resulting in a transient population. As one participant describes:

> *"Industry is entirely based around agriculture and forestry. Static population is 2,000; however, the population can double in size during the fruit-picking season. This is mainly Tongan, Papua New Guinea, Korean and European foreigners" (QLD43)*

It was not clear how the significant increase in population and needs on health services impacted on nurses.

Participants stated that many of their presentations (patients) were directly related to industry in the community; an aspect that was appealing to some nurses. As described:

> *"I like working with patients that have fascinating conditions that can sometimes relate to where they live, i.e. farm injuries" (NSW51)*

> *"We have coal mines, so we get workplace injuries" (NSW49)*

5.5.4.2 Culture

Many nurses (more so in QLD), worked within large Indigenous communities. Others worked in a community where a *"Large Indigenous population coincides with a rich farming community"* (QLD09). Some nurses working in these areas noted diversity of health issues in different population groups in the same geographical location. As one participant said:

"[There are] completely different health care requirements of Indigenous health" (QLD35) and as others say:

> *"Unique Indigenous health issues and caring for the Indigenous, it's just different from caring for Anglo-Saxon people in large populated areas" (QLD38)*

Some participants reported difficulties in understanding Indigenous culture and subsequently meeting the holistic care needs of this group was a concern for many participants. Alternatively, some nurses perceived a lack of understanding of the culture as an opportunity to learn. As two participants stated:

> *"It's testing my patience and frustrations [trying to understand the Indigenous culture]" (QLD32)*

> *"It's [working rural and remote] helping me to understand their culture" (QLD42)*

There was no reference made amongst participants that organisations helped nurses prepare for working with different cultures.

Aboriginal Health Workers (AHWs) were rarely mentioned in Phase Two data. Subsequently, the researcher wanted to explore further how many nurses were working alongside AHWs. If nurses were having trouble understanding Indigenous culture, would these posts not be of benefit? In addition, what support was offered to nurses regarding cultural safety and awareness? Alternatively, the next excerpt raised a question for the researcher of whether those with experience and qualifications appropriate to particular Indigenous cultures were used to optimise culturally-appropriate care. As stated:

> *"Indigenous management in place, so very little managerial role expected of me despite being the most qualified and experienced clinician" (QLD36)*

Further data on how culturally aware nurses were and how cultural safety was achieved was needed and would be collected in Phase Three.

5.5.4.3 Professional boundaries

Another key category found in this data analysis was professional boundaries. Findings of Phase One highlighted the possibility of 'blurring' professional boundaries in rural and remote communities (NMBA, 2013a). Several participants throughout Phase Two expressed difficulties in differentiating between their personal and professional lives with a lack of privacy for staff. Participants describe this as:

> *"… small town culture at times removing from your work place including boundaries with clients, private vs professional life" (QLD53)*

> *"Small community: positive and sometimes negative as no privacy for staff" (QLD42)*

Participants' reported working and living in small communities blurred professional boundaries and personal safety. As QLD39 states:

> *"The afterhours on-call in remote is challenging if it's a small clinic and the threat of violence and intimidation if we don't live up to unrealistic community expectations" (QLD39)*

Another participant adds:

> *"People's attitudes, verbal and physical abuse from patients [is a concern]" (QLD29)*

This was an important area in linking the political and social context of rural and remote areas to the phenomenon of nursing practice.

5.5.4.4 Challenges

The challenges presented within Phase Two findings were isolation of facilities and geographical distances to resources. The eco-social influences of the community and the geographical location of a facility affects nurses' practice. Research question one (section 5.5.1) touched upon retrievals and nurses' roles in maintaining patients whilst waiting for

medical evacuation. In addition to those medical emergencies, routine patients may also be required to leave the community and travel to larger tertiary centres for planned treatment and follow up. In these circumstances, the nurse's role becomes one of liaison and coordination. The need for travel and the geographical challenges on such travel affects patients' time and cost. As described:

> *"Dealing with long access times and distances for patients" (QLD10)*
>
> *"A long way from major centres, impacting on time & cost to get to tertiary services" (QLD46)*

5.5.4.5 Support

Nurses reported the lack of human and material resources. There were three areas in which participants reported resources to be deficient. These were:

- mental health care competency;
- Alcohol Tobacco and Other Drugs teams (ATODs); and
- availability of midwives.

As explained:

> *"We lack resources such as social work, ATODS and MH. They are unavailable to our patients" (QLD69)*
>
> *"Mental health presentations are always a challenge" (QLD31)*
>
> *"In our Community we need MH & ATODS to be 'on-Call'" (QLD42)*

Several barriers to mental health service provision became apparent during analysis of the data. Services were available in an ad-hoc manner with nurses never really knowing when they would get support or when they had to manage the situation within their limitations. As one participant said:

"Mental health often is not available even when they are onsite, drug & alcohol liaison sometimes can be reached, sometimes not" (QLD37)

There was insufficient information to clarify why this occurred and this was further explored in Phase Three.

In overcoming these barriers, nurses seek support from others outside of the mental health team. As two participants said:

"No access to on-call mental health services or safe mental health room. Managed with the help of our rural generalist medical officers … or Police assistance" (QLD09)

"… Women requiring mental health/drug & alcohol review often fall through the cracks. Women presenting as severe acute are either admitted or referred to 1800 mental health line. If they require admission – flown away to another centre. If stable to stay home - referred to specialist - either have to travel to another centre, wait for up to 2-6 months to see specialist who comes once a month to clinic here" (NSW20)

Phase Three explored this area further.

Another area of concern was lack of midwifery services. Both nurses and midwives who were participants in this study raised their concerns, stating:

"Our maternity roster not covered for nightshift and often gaps in day roster too" (NSW23)

"Having to rely on your own skills and not having another clinician to "bounce" concerns off. Especially as a midwife where you are the only Midwife around and there is no onsite doctor" (NSW21)

Colleagues do what they can to provide support to each other. As one participant says:

"We have some staff that have their midwifery but are not on-call when off duty but will come if they are around & we need them" (QLD37)

This excerpt particularly interested the researcher from a number of angles; firstly, why were these nurses coming into work when they were not on duty? Did they feel that their colleagues expected it? Alternatively, did they themselves feel that it was their responsibility to come in and help their colleagues out? (Self-expectation). Secondly; if the nurse comes in and delivers an infant, where does that nurse stand if something was to happen to the mother or child when they should not have been on duty? Does this raise issues of vicarious liability?

Despite the challenges and lack of support for nurses working in rural and remote communities, there was an ability of nurses to utilise resources in the best way possible, modify, and adapt their practice to manage potentially difficult situations. As these three participants describe:

"We may not have the resources at the time it is needed, so nurses modify, adapt and overcome" (NSW49)

"Depending on weather sometimes RFDS cannot land. With mental health we have had to transfer 180km away. Discuss whether to keep them here & do what we can or road transport to another airport" (QLD37)

"When on ambulance call out there was no phone access, no satellite phone access and no radio contact. Had to do the best I could until I was able to get into phone service" (QLD15)

Each excerpt above demonstrates the significant challenges rural and remote nurses face in providing care. The term 'modify and adapt' was reported frequently and the researcher wanted to explore in what ways nurses modify and adapt their practice.

In summary, communities were diverse, needing at times different health care. The issue of culture arose with participants expressing challenges that they face when working amongst other cultures. Professional boundaries were reported as problematic when living and working in a small community and the additional issue of personal safety when not meeting the expectations of the community arose. Three areas were identified in which resources were particularly poor; mental health, ATODs and midwifery. The community presents challenges to the rural and remote nurse's practice.

5.5.5 How do rural and remote nurses overcome barriers to sustain motivation and address challenges in providing effective healthcare?

Challenges influenced practice for nurses. Such challenges included retention of workforce, organisational culture and interactions with doctors. Whilst many challenges were reported from most participants, others were a challenge for one nurse yet a motivator for another (level of autonomy when working with doctors). Figure 5.15 presents codes and categories generated for this question and relationships between the codes and categories.

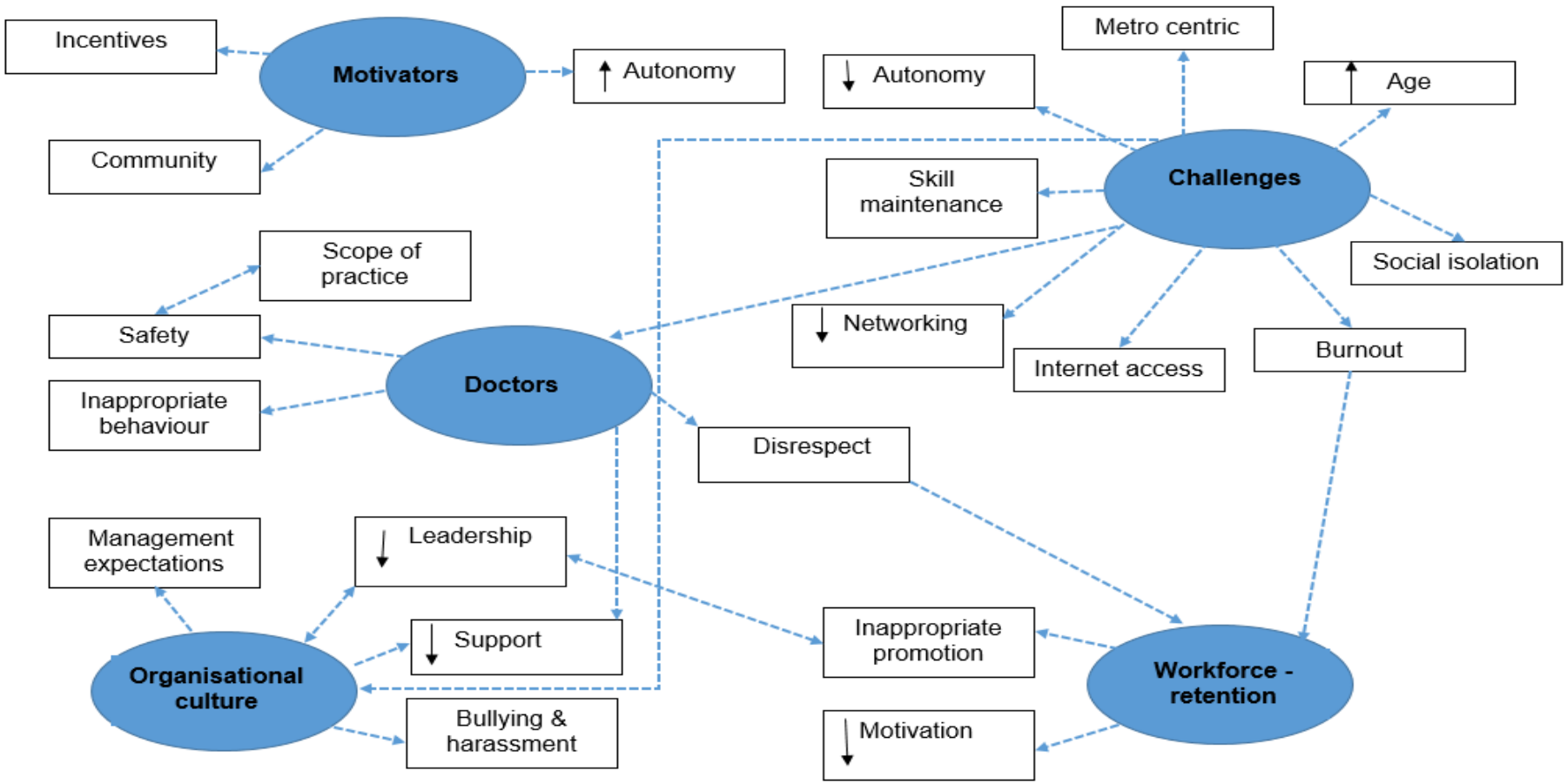


Figure 5.15 Overview of findings for RQ5

5.5.5.1 Challenges

Nurses of a younger age consistently reported *"Social isolation from usual peers and family"* (QLD34) and having *"No internet at home or mobile phone coverage [due to be installed next year]"* (QLD61) as significant challenges. One participant summarised the situation when she said:

> *"Achieving a work-life balance and trying to maintain a "normal" social life for someone in their mid-20s. Living in a remote community means that I don't have daily access to my family and friends, and miss out on a lot of important events" (QLD26)*

Alongside social issues, another challenge to living and working in rural and remote areas previously noted was professional development, in particular maintaining skills. This challenge was two-fold. First, rural and remote nurses may only use a skill once in a number of months. Thus, maintaining skills is difficult. The second challenge was accessing and gaining professional development and skill acquisition as discussed in section 5.5.2. As participants noted:

> *"Having generalist skills is excellent but some skills you may only use once a year due to infrequency of presenting problems" (NSW72)*

> *"You might get training on something e.g. ALS but not run a code for 10 months - it's hard to keep knowledge fresh if it's not used for months at a time" (QLD62)*

These challenges are particularly pertinent for nurses working as sole practitioners, when facing an infrequently needed task. The researcher wanted to understand what nurses do in these situations when presented with a patient in which a skill is required to be used which nurses are lacking in confidence and/or competence. What support is there for nurses and how do they access it?

One proposition put forward in this study was that nurses use their networks to gain support and information to provide effective healthcare. However, the opportunity to network is perceived as minimal, as financial cost for travel and accommodation to engage in networking inhibits this activity. As these participants said:

> *"More opportunity [is needed] for rural and remote nurses to connect and talk about issues pertinent to this landscape. Funding needs to be found to transport nurses and accommodate them due to large distances to be travelled" (NSW30)*

> *"Geographical isolation, financial burden e.g. travelling for education, lack of mentoring/networking opportunities [is a challenge]" (QLD65)*

Section 5.5.3 presented the findings in relation to limited professional development opportunities. This raises the question of how do nurses in this situation network and engage in professional development.

Participants did not perceive linking with metropolitan nurses as useful for training as they reported poor understanding by others as to what rural and remote nurses do. Therefore, metropolitan misperceptions were the next challenge to be explored. Some participants described this perception as:

> *"[There is a] Lack of understanding from an urban setting about the challenges faced in rural/remote areas leading to the tyranny of distance and the difficulties patients face when having to leave their families and familiar settings for care provided by a tertiary setting" (NSW72)*

The researcher was keen to explore further perceptions of the relationships between the rural and remote facilities and the larger centres both as a support network for rural and remote nurses but also from a patient continuum of care.

The next challenge commonly identified was leadership. As this participant says:

> *"Our biggest challenge currently is staffing and leadership. We have high staff turnover at our hospital, and I feel that this is due in part to poor (practically non-existent) leadership from our DON… This has led to a toxic work environment and the DON does very little to promote an environment where nurses are considered a valuable member of the team. Because it is such a small town and we have such a small number of staff, there does not seem to be an obvious avenue as far as voicing complaints or concerns [anonymously]" (QLD45)*

What is interesting within this response is the participant's reference to the context of practice. The benefits of anonymity that nurses working in bigger organisations, particularly in metropolitan sites, experience is not possible in this case due to the small number of nurses. The participant believes that they do not have an avenue to resolve the issue due to fear of exposure with the DON.

Another challenge is out of date skills for best practice and managers allowing it to remain this way. The following two excerpts suggest that organisations are not supporting new knowledge or initiatives to change practice, resulting in the continuation of poor and unsafe practice. As explained:

> *"Lack of motivation amongst some management to push for staff to stay up to date with clinical best practice. In some places there are few jobs & some people stay stuck in a role they may not be best suited for, since there's lack of opportunity" (QLD46)*

> *"New knowledge not appreciated or encouraged. People [managers] not wanting to change" (NSW71)*

Section 5.5.1 presented the findings focusing on nurses taking on extra responsibilities much earlier than their metropolitan counterparts do. These centred on skills-based responsibilities and being in charge of a facility. These excerpts imply that people remain in leadership positions, as there are limited options elsewhere. Nurses then become stale

within these positions having a negative effect on the team. The subject of recruitment into positions interested the researcher and further exploration as to how this affects nursing practice in rural and remote areas was explored in Phase Three.

It would appear that some services had made recent changes resulting in additional layers to 'management' taking away the autonomy of the nurse as described by one participant:

> *"It used to be the autonomy [that motivated me] but recently the Health Service seems to be creating more and more "chiefs" to answer to" (QLD63)*

Yet these additional management layers do not always address prompt, effective decision making as noted by QLD50 who says:

> *"DONs not being available when needed to approve necessary resources [and other decisions and] … nursing staff aren't given the autonomy to make common sense decisions when they are the only ones actively on the floor and able to assess situations … creates great stress" (QLD50)*

The issue of the safety of the nurse being at risk due to a lack of security measures is touched upon but not extended and this serious risk is one for further exploration.

Negative organisational culture extended from direct nursing management to medical staff as well. The lack of medical support in rural and remote areas as previously cited has a major impact on the roles and responsibilities of rural and remote nurses. However, there are also challenges in those areas where there are varying degrees of medical support and the nurse has to make a decision as to when it is appropriate to call a doctor. When contacting medical staff about a patient, many participants reported inappropriate behaviour as noted by:

> *"We have had issues with Drs not answering phones when on-call and not coming up to assess patients in a timely manner. I appreciate they run clinics the next day but if they are on-call they should come in if staff request this e.g.*

child brought in by ambulance - asthma attack, settling but doctor said just admit and I'll see them in the morning, it was 10pm and they wouldn't have seen a doctor till 8am the next day. I thought an acute admission should be reviewed that night, but the next shift was more experienced and ok with the plan" (QLD62)

"We are treated poorly and disrespectfully by both of the doctors that are on-call. I have often had to call the doctor on-call with a question or needed to discuss a patient I was concerned about and have been sworn at - basically because the doctor was annoyed, they were being called 'during dinner time' … This entirely unprofessional way of interacting would probably not happen in a larger hospital without immediate recourse. However, our doctors seem to get away with this because we are all basically afraid to stand up to them… doctors are beloved, invaluable members of our community that could pretty much do what they want without getting fired" (QLD45)

"We need other ways to order medication because GPs are working through the day and may not be willing or able to provide care overnight because they need to work the next day. Frequently GPs will say as they leave that they will sign for medications we give, just don't call unless someone is critical" (NSW49)

Further work was required to explain the level of support provided by medical staff. The researcher wondered if other nurses were reluctant to call doctors for fear of the response they may receive and how does this impact on patient safety and the nurse's professional obligations. One participant demonstrated the crucial link between the lack of medical staff and the nurse's scope of practice. In the case where nurses are told that doctors will prescribe the medication the following morning, one questions whether the doctor would indeed still honour the nurse's practice in the same way if mistakes occur. Most importantly, consideration as to alignment with legal and ethical expectations of nursing practice is required. If nurses realise they are going beyond their scope of practice, what support is required for nurses to refuse such actions?

Several participants commented that working in rural and remote areas was not by choice and that they would rather be working elsewhere if they could. As stated:

> *"I don't mean this to sound negative, but I've moved back to the area for personal reasons… only nursing work available to me. By choice I would work in a surgical ward, I feel a little out of my depth dealing with trauma … being new to rural nursing I feel nervous about a lack of knowledge I see in myself. Others tell me I'm doing fine, but its early days. If I could work on the ward or in the aged care facility and not in ED, I would be far more comfortable, but the service is not designed that way" (QLD62)*

> *"I live in this area because this is where my husband is originally from and he runs his cattle business here. Thus, I am not particularly choosing to continue working in rural nursing and would prefer to work in a larger hospital" (QLD45)*

For those nurses who do not feel they have a choice in where they nurse, a subsequent sense of discomfort could be a source of stress. There is sufficient data to explore adaptation which is relevant to previous findings in this chapter (section 5.5.3) presenting the trajectory of rural and remote nursing (Benner, 1984).

Related are the issues of recruitment and retention, previously highlighted in Chapters Two and Four. Participants echoed the issues within the literature around lack of staff, replacement of staff and recruiting *"Competent staff"* (QLD28).

> *"Lack of staff due to delayed recruitment also causes stressors on employees due to extra hours" (QLD69)*

> *"Burn out, overworked due to lack of nursing numbers to "replace" staff on leave, employers very hesitant to authorise agency staff due to high costs, rely on local staff to cover" (QLD65)*

A large number of participants in this study did not know how much longer they would continue working in rural and remote nursing. Therefore, recruitment to the rural and remote nursing workforce is and continues to be a major issue.

Burnout is a concern for the wellbeing of these nurses, with the lack of staff and challenges facing nursing in rural and remote areas. The following three excerpts support this:

> *"Burn out. I worked 3 1/2 years at …, which I enjoyed very much, however would be 3-4 months regularly without relief and once 6 months. On-call 24/7 and called out a lot. Campbell Newman cut backs saw the CN position I recently appointed for relief, disestablished" (QLD61)*
>
> *"I enjoy working with the community and doing the clinical care that I do, however it is getting to a point where it's not worth the stress to continue" (QLD55)*
>
> *"The rural nursing workforce is greatly undervalued and is at risk of burnout if more is not done to support them" (NSW30)*

Participants reported leaving or thinking of leaving current positions due to the level of stress experienced.

5.5.5.2 Motivators

Whilst this phase of the research highlighted many challenges for RNs there were also some positive statements as to why participants chose to work, and continue working, in rural and remote nursing. Phase One (Chapter Four) provided information on incentive packages implemented to entice nurses to work in rural and remote locations. Findings from this phase of the study support their effectiveness in relation to housing and pay benefits even though professional development benefits were not always accessible. Whilst many participants were extremely dissatisfied about overtime undertaken, others used this to their advantage as one participant said:

"I work at least 60 min extra every weekday to accumulate TOIL" (QLD31).

"The pay & other benefits are good & I get free accommodation & RANIP" (QLD46)

By far the most significant motivator for nurses to continue to work in rural and remote areas was working within a community. Nurses were passionate about the communities in which they worked and liked their sense of autonomy. Examples of this included:

"I love what I do. I am always looking for new challenges and new aspects of health to explore … I find by changing things regularly and challenging myself I stay motivated and I love the rural community and I love the people. Without the people you can't do your job, they are what make you do the job that you do…." (NSW20)

"Love the autonomous nature of the work, and just the experience and challenge of being in the outback" (QLD16)

Nurses thrive on community engagement. The impact of community and the challenges of the type of responsibilities for nurses were much more evident at the end of Phase Two. However, the researcher was unable to answer some research questions and was interested in what appeared to be a unique relationship between the rural and remote communities and nurses. Further exploration was planned in Phase Three.

In summary, findings highlighted challenges facing nurses in rural and remote areas. Challenges were many and included a lack of support and negative organisational culture. Participants noted a lack of encouragement and leadership from nursing managers and inappropriate behaviour from medical staff. Clear evidence linking such organisational culture to retention of staff was demonstrated, which raises workforce concerns. Many nurses noted an intention to retire soon which will further compound workforce recruitment issues. Whilst these findings do portray many negative images of working in rural and

remote locations, participants also shared many positive experiences of working in this landscape, in particular engaging with the community.

5.6 Within case and cross-case analysis

The following sections provide the reader with key differences found within case and across cases. The sample size between cases varied considerably (QLD n=50, NSW n=25).

5.6.1 Case one (QLD) RA3, RA4 and RA5

A within case analysis for case one to determine what differences there were between different geographical areas was undertaken. Only 48 of the 50 case one participants had their data included within case and across case analysis. Two participants did not state their workplace postcode, thus not allowing their data to be extrapolated and assigned to a RA classification. There was only one participant in RA2 increasing to 26 in RA5 (figure 5.9) hence, there were limited ways to compare findings between RAs. The types of facilities and communities were similar throughout all RAs with the exception of no Indigenous communities stated by RA2. Level of support across areas decreased as remote area classification increased. There was good support for RA2 with medical staff and midwives onsite 24/7 and other HCPs onsite during business hours. This, however, is a representation of one nurse in one facility and cannot therefore be generalised to all RA2 facilities. RA3 and RA4 had similar levels of support and this ranged from having a doctor, anaesthetist and midwife available 24/7 through to having no support onsite at all with contact made via phone and telehealth. There was a difference in lack of support outside of business hours. RA5 had no support onsite at any time with support accessed via telephone or telehealth. Where support was available on other sites it was in the form of one doctor during business hours only.

Question 18 of the questionnaire asked participants whether they always had access to resources that they required. The participant from RA2 declined to answer this question. Of the remaining classifications two (22%) from RA3, five (42%) from RA4 and six (23%) from RA5 responded that they did have the resources that they required. However, one nurse in the RA5 category did acknowledge that due to the nature of a sole nurse post there was a high risk if there were multiple victims such as in a moving vehicle accident (MVA), for example. By far the most common response in all categories was the need for mental health support and in categories RA4 and RA5 the need for ATODs was also noted. The need to transfer patients was common across all three RAs with potential difficulties when RFDS are unable to land due to weather conditions (RA3) and not having reception to seek help (RA5). RA3 noted midwifery as lacking, RA4 having minimal numbers of nursing staff and having to manage all areas and RA5 as not having quick access to specialist services.

There was a variance in what participants were receiving for CPD across and within all RAs and it was also noted, particularly by those in RA5, that whilst they knew what their entitlement was, they also knew that they wouldn't receive it. In analysing the findings with regards to the skills and/or courses that RNs required, the participant from RA2 in which support from medical staff was available responded that staff should have a Nurse Practitioner qualification. This nurse was not a NP herself and gave no explanation as to why she felt this way. This participant did not wish to take part in Phase Three of the study, so it was not possible to follow this up, which was unfortunate. Participants in RAs 3-5 did not mention having NP qualifications at all.

In RA3, participants' focus was on emergency skills and midwifery which correlates to the lack of midwifery resources. Participants spoke of the need for nurses to undertake the MEC. Nurses in RA3 and RA4 spoke of nurses needing experience in a tertiary setting, namely ED/ICU prior to working in rural and remote areas.

Whilst the list of skills was similar to RA4 and RA5, responses in the RA3 category did not link specifically to context. Those responses in RA4 and RA5 referred to the need for training to be context specific, delivered locally and to focus on the transition between working in a metropolitan or urban area to working in rural and remote areas. Those in RA5 expanded further on this by also noting the need for organisational/management skills such as management of aggression training, how to deal with working in small teams/towns and with a lack of support. Also noted, was the need for specific training to fulfil unique roles such as four-wheel drive (4WD) courses and QLD Ambulance Service (QAS). Whilst RA4 participants did link training to context it was only in RA5 that participants noted the importance and need for cultural training courses. RA4 and RA3 did not highlight this and this surprised the researcher as they had noted working within communities populated with Indigenous people and/or high numbers of transient overseas workers at particular times of the year.

The topic of extended or advanced skills was an interesting one between the classifications. Participants in RA4 referred to *'rural skills'* including plastering and suturing. Not at any time did they refer to the need to have *'advanced'* skills. Those in RA5, however, made many references about needing *'advanced'* skills; specifically, patient assessment skills or general advanced nursing skills. This was interesting in that those in RA5 were recognising such skills as being at an advanced level whilst those in RA4 saw these as merely being the roles that fell within the role of the rural nurse. There were more sole practitioners within the RA5 group, however the level of support from medical staff was similar. One area of skills/training which felt important across RA3-RA5 was that of the RIPRN course, which acknowledges the importance of the rural and remote nurse's role in medication initiation, administration, and management. This does highlight an 'advanced' level of training.

The final area examined within case one was the challenges that participants reported they encountered. Table 5.3 displays the results of this analysis. Whilst there were some areas across RA3-RA5 reported such as skill maintenance, additional non-clinical roles that nurses are undertaking and social isolation; there was also a clear distinction between additional challenges that came with working in RA4 and then RA5. Not surprisingly, culture arose within RA5, which supports their need for cultural training in question 22. The effect the organisation has on a nurse in relation to understanding from managers, expectations, bullying, harassment and safety was reported frequently.

Table 5.3 Challenges reported by nurses in case one (QLD) categories RA2-5

	RA2	RA3	RA4	RA5
Professional support				
Limited resources				
Increased workloads				
Decreased staff				
Managing all areas of a facility				
Lack of experienced staff				
Need for multiple skills				
Skill maintenance				
Mental health				
Additional non-clinical roles such as cleaning, admin etc.				
Management expectations				
Social isolation				
Lack of amenities				
Lack of understanding from metropolitan areas and managers				
Distance				
Blurred boundaries with the community				
Poor leadership				
Disrespect from doctors				
Violence, intimidation				
Community expectations				
On-call				
Attendance by patients				
Organisational culture				
Professional isolation				
Access to professional development				
Transient workforce				
Not receiving TOIL/OT pay				
Unfair RANIP				
Time off				
Safety				
Culture				
Bullying & harassment				
Cost of flying in and out				
Burn out				

5.6.2 Case two (NSW) RA3, RA4 and RA5

A within case analysis of case two was undertaken. Numbers were considerably smaller in case two and whilst it was felt important to carry out this analysis as a basis for further questioning in Phase Three, the reader is reminded that aside from RA3 (n=20), the remaining categories had small numbers (figure 5.9). Within the RA2 category, there were

just two participants, but their experiences were vastly different. Both participants worked in a district hospital but in different LHDs (both predominantly mining and agriculture). As such, one nurse had good support of health care practitioners 24/7 onsite, but for another support was only available via phone or telehealth. This reflects information in Chapter Three whereby many districts work on the hub and spoke model in which whilst a participant may have an office base in RA2 their work is carried out in areas which spread across RA3 to RA5. With two participants with such variance in their responses, results cannot be generalised to all RA2 areas within NSW.

The communities were similar across RA3-RA5 with agriculture most commonly cited. RA3 and RA4 had a mixture of hospital-based nurses and nurses working in community facilities. The two participants working in RA5 worked in a rural MPHS and a remote health service so there was an expectation that in relation to the level of support there would be differences seen. Similar patterns seen in case one were also in case two with the majority of onsite staff being doctors, anaesthetists and midwives. Facilities ranged from many HCPs available to having no one onsite at all and having to contact them via phone or telehealth.

Eleven nurses (44%) across four categories reported always having the resources that they needed. One participant stated that it is when *"problems arise that the unexpected occurs"* (RA4) and that nurses *"have to modify, adapt and overcome"* (RA2). It was only RA3 participants that gave more narrative as to what resources they did not have and these included; mental health and ATODs, midwifery, lack of management help, lack of orientation, support and education, no debriefing and not having health care practitioners available resulting in *"being required to push their scope of practice to their limits"* (NSW30).

Twelve of the 25 nurses (48%) were aware of their entitlement to professional development funding or time. However, many nurses stated that there was no funding or leave allowance. This was consistent across all RA categories.

Unlike the RA2s and RA3s in case one, within case two nurses did link what they felt the required training and development should be with the context of practice. Within RA2 the need to be able to *"give medications safely and within scope"* (NSW49) highlighted the possible lack of policies to guide a nurse initiating treatments. RA4 and RA5 highlighted again the need for emergency skills and *'enhanced'* physical assessment skills. One participant in RA5 felt that all staff should obtain the Certificate in Rural and Remote Health. RA3 once again noticed the need for emergency type skills such as assessment, triage, and life support. In addition, there was a focus around organisational training such as managing staff/troubled teams, leadership and communication.

It was once again difficult to analyse any differences between categories for challenges faced due to low numbers however, Table 5.4 depicts participants' responses to this question. Professional isolation was common across all categories with skill maintenance, social isolation and burn out also featuring in two of the four categories.

Table 5.4 Challenges reported by nurses in case two (NSW) categories RA2-5

	RA2	RA3	RA4	RA5
Professional support				
Limited resources				
Decreased staff				
Lack of experienced staff				
Skill maintenance				
Social isolation				
Lack of understanding from metropolitan areas and managers				
Distance				
Disrespect from doctors				
On-call				
Organisational culture				
Professional isolation				
Access to professional development				
No legal framework for extended SOP				
Time off				
Access to stimulating discussion				
No medical staff				
Lack of services for patients upon discharge				
Burn out				

Within sections 5.6.1 and 5.6.2 the results of the within case analyses were presented. Throughout this analysis and with response rate limitations, similarities and differences were sufficiently evident within the different RA categories within each case to note in these findings. The next stage was to analyse the same RAs across cases through a cross-case analysis. Whilst this was possible for category RA3 (section 5.6.4) it was not possible for remaining categories due to either the uneven numbers between participants in each of the cases or the total numbers being small (n=<3) (Table 5.5).

Table 5.5 Numbers of participants within each RA category for each case

Remote Area Classification	Case one (QLD) (n=)	Case two (NSW) (n=)
RA2	1	2
RA4	12	1
RA5	26	2

5.6.3 Case one (QLD) and Case two (NSW)

The communities and subsequent contexts of practice between the two cases are different, which in turn has a direct influence on the roles of nurses. This finding was also found in Phase One. QLD had a considerably higher percentage (5.61%) of nurses working within communities that were either closed Indigenous communities or a community in which there was a high percentage of Indigenous people as compared to NSW (2.85%). Whilst communities with a high Indigenous population were most common amongst QLD participants, NSW were more commonly from agricultural communities (6.91% NSW as compared to 4.93% for QLD). Mining and cattle farming were similar between the two states.

Participants were asked how far it was to the nearest tertiary referral centre and data came back in the form of kilometres (KMs) as well as time. These findings were categorised in two separate forms of data measurements as this had not been anticipated. In QLD, two participants reported that the only access to a tertiary facility was by air. The average time to reach a facility was 3.15 hours for QLD and 2.9 hours for NSW so despite the larger geographical spread of QLD these times were similar. What information was not gleaned, however, was the terrain and how accessible those roads were to a variety of vehicles in a variety of weather conditions. For those responses provided in KMs the average for QLD was 545.7 KMs (excluding air travel) and 317.4 KMs for NSW which did demonstrate a

difference between distances but once again, this may not have been representative of the actual time taken to reach the facility based on the terrain.

There were considerable differences in types of facilities in which participants were working with NSW having a high percentage of participants (80%) working in a hospital (district, rural or 'base'). In QLD this figure was 34% (district, rural and community). In QLD 66% worked in community facilities of which 48% were multiple purpose health services. In NSW 12% worked in a MPHS and 4% in a remote health service, it was not stated whether this remote health service was community-based.

In ascertaining the roles and responsibilities of the nurses, the researcher asked them what percentage of time was spent undertaking; clinical/direct patient care, administration, research, education and management (Hamric et al., 2008). Whilst both cases reported high scores in administration, they were higher in QLD than NSW. The areas of research, education and management did not feature heavily in the roles across either state.

What did become apparent to the researcher throughout the cross-case analysis was that nurses in QLD had a wider scope of practice than those in NSW. QLD participants discussed how they utilise telehealth frequently, take x-rays and work as ambulance officers within their role as an RN. There was more of a focus on the emergency and acute management of patients than in NSW. The researcher was seeing differences between cases regarding roles and responsibilities of nurses, which raised several questions:

- Were these differences because NSW participants were predominantly in hospitals and were well supported by a variety of health care professionals?
- Was their role not as general as QLD participants?
- Were there a higher number of participants from RA category three as compared to QLD?

This confirmed the importance of using maximum variation sampling in Phase Three to provide a good representation of locations and facilities to enable comparisons to be included in the study.

As there was a high number of participants in QLD in remote and very remote areas, these nurses attract higher RANIP packages, which explains the difference between the two cases. CPD days averaged 6.9 for nursing working in QLD and 6.7 for nursing in NSW with ten participants for QLD and six for NSW that did not know what their entitlement was at all. Thus, these figures were similar.

There was similar data from both cases regarding significant challenges associated with working in rural and remote areas. The biggest challenge was lack of staff in QLD with on-calls and skills next. For NSW, lack of skills was the most frequently mentioned challenge for nurses. Unsurprisingly isolation, access and support also scored high amongst both groups.

5.6.4 Case one (QLD) RA3 and case two (NSW) RA3

Upon comparing category RA3 in Case One and Case Two several differences were found. Firstly, the level of support was different with case two (NSW) being more supported onsite than in case one (QLD). This was supported by the demographic results, which demonstrated a much more stable workforce in case two than case one. However, there were still some nurses within case two who reported to be working unsupported, which is important to note. When discussing access to resources in providing healthcare, nurses in case one took a patient-centric approach stating difficulties with lack of mental health resources, no access to diagnostics and difficulties often faced in trying to transfer a patient to a larger facility. Case Two, on the other hand, was organisation-centric with responses around management not helping out, lack of orientation programmes, support and education. Whilst there were clear concerns around these organisational issues, the

nurses in case two did also report the lack of mental health, ATODs and midwifery services specifically as well as the need to push their scope of practice.

The final difference was in relation to challenges faced. Once again, case two took an organisational focus to challenges whilst case one in addition to organisational factors also focused around the need for skilled and experienced staff to provide optimum health care delivery for these communities. Key similarities between the two cases were around metropolitan counterparts not understanding what rural and remote nurses do, along with burn out and social isolation.

5.7 Implications for Phase Three

At the end of Phase Two, responses for secondary research questions were analysed in line with theoretical propositions set out at the beginning of the study. Some theoretical propositions have been accepted, however, others required a further phase of data collection to obtain additional data before they could be accepted or refuted.

5.7.1 Turning to theoretical propositions

The following discussion provides an evaluation of how data from Phase One and Two contributes to the theoretical propositions. Tables 5.6 to 5.10 that follow outline areas for further exploration going into Phase Three and associated theoretical propositions.

Nurses working in rural and remote areas hold a variety of roles and responsibilities, which are significantly different to their urban or metropolitan counterparts. Following Phase Two, differences between the two cases became apparent with QLD RNs taking on more roles that sit outside traditional boundaries of RNs such as acting as ambulance officers as well as taking x-rays. In addition, there are cleaning, mechanical and operational duties that nurses undertake as well as their clinical roles, which is considerably different.

Notably the data demonstrates the need for nurses to work across the lifespan and across all specialities from antenatal to palliative and everything in between. Within Australia, nurses are taught across the lifespan and across specialties and upon completion of their undergraduate degree and meeting inherent requirements can register as a Registered Nurse to work in any area (Australian Nursing and Midwifery Accreditation Council, 2012).

An important finding that appeared to cause much frustration amongst participants was the level of administration that they have within their roles that takes them away from providing direct patient care. If nurses are fulfilling the role of administrators as well as their clinical roles, what impact does this have on service provision and, more importantly, patient safety? Findings of Phase One were clear in concluding the need for administration staff to be working in these areas but the findings from Phase Two do not appear to support the implementation of these recommendations at an organisational level.

Data (Phase Two) indicates that nurses were either working over and above their scope of practice or at least were pushing its boundaries. Whilst participants through many of their responses were indicating their use of advanced skills, there was still insufficient data to support theoretical proposition 2a.

It was also not possible to accept theoretical proposition 2b. A large number of participants were indicating that they were taking on additional and extended roles due to organisational pressures and had an inability to prepare sufficiently for practice. Others noted that organisations were taking away their level of autonomy. Scope of practice was not clear at this point. Once a rapport had been established between researcher and participant, it was felt that participants would be more open to discuss their practice during the interview rather than through the questionnaire.

Nurses referred to enjoying the autonomy of working in rural and remote areas, although some also said that this autonomy was decreasing due to an increase in the number of

'chiefs' to answer to. Autonomy in a professional sense is defined as *'having the authority to make decisions and the freedom to act in accordance with one's professional knowledge base'* (Skår, 2009, p. 2226). The essence of working autonomously is being able to take responsibility for one's choices, and it is only with appropriate professional knowledge that this should occur.

Many participants reported extending their scope of practice in the absence of a doctor, however there were no clear examples of what this extension looked like. Phase One data demonstrated the need for credentialling within organisations whereby if nurses are using skills which are outside traditional roles of RNs, training and assessing competency, and dates for review should be established (Australian Commission on Safety and Quality in Health Care, 2015). Credentialling was not bought up in Phase Two, despite questions related to the types of preparation and education required for practice.

Several participants referred to themselves as *'fighting for best patient care'* or *'best practice'.* These statements were not elaborated upon and the researcher questioned who they were fighting for best patient care with. Participants had highlighted expectations held by managers and organisations as a whole.

A small number of Nurse Practitioners responded to the questionnaire. These NPs indicated that there are some nurses working at an advanced level within a regulated capacity. The questionnaire did not have any questions directly relevant to NPs so with purposeful sampling the researcher aimed to recruit NPs as participant(s) in Phase Three.

There were vast differences seen in the opportunities for professional development across participants in support of theoretical proposition 3b. Many nurses did not know what their entitlements were for professional development leave or funding. In contrast others were aware of their entitlements but reported being unable to take them with many nurses having to self-fund any activities that they chose to carry out. This further supports

theoretical proposition 3b and 5a in relation to the challenges this presents to providing care, however it also presents a rival explanation as to what nurses consider CPD to be (see section 5.7.2).

Despite days and/or funding being allocated, when asked whether nurses had completed any CPD in their current role there were 24% of nurses in both QLD and NSW that had not completed any CPD in their current role. On the basis that 76% (n=57) of all nurses had been working in their current role for more than 12 months this was concerning as to how these nurses were meeting their CPD requirement for registration as well as fulfilling their roles. Were nurses still completing CPD but in their own time and with their own funding, or were nurses just not completing it and what impact does this have on their continuing registration? This was an important issue in light of the mandatory requirements highlighted in Phase One. Not only did it highlight the annual mandatory activities that nurses within each of the cases were required to complete, but also requirements for managers to keep a record of completion. Was this therefore an indication that organisations were not concerned about CPD and scope of practice as first proposed in theoretical proposition 2b?

Participants noted the inconvenience and cost of education and training programmes held in metropolitan locations. Additionally, training was not always appropriate for the unique role of the rural and remote nurse. Theoretical proposition 2d purports that there are a number of existing programmes available to prepare the RN for advanced practice. Whilst data from Phase One and to a degree Phase Two support this proposition, it is questionable as to whether they are available, as well as suitable for rural and remote RNs. Therefore, these RNs require advanced practice education.

Mode and training topics were key issues for participants. Participants advocated for emergency skills, and prior to working in the environment. There was a difference of opinion amongst participants regarding online training methods. Some reported this to be

the best way to learn, and others held concerns over the time given to complete online learning and accessibility to a good network connection or a network at all. With such a focus on practical skills the researcher questioned how online learning was able to deliver such practical based learning.

When asked what courses and/or preparation nurses required prior to working in rural and remote areas there were conflicting findings around whether they should gain experience in a metropolitan/urban centre first. Whilst some participants responded to say that this was essential to RNs managing emergency presentations successfully, others that had many years of experience in larger EDs reported that this experience did not make a difference to how they felt out of their depth in the rural setting. The researcher's thoughts were growing towards the importance of transition between environments of facilities being managed, rather than the experience in number of years.

The biggest challenges to working in rural and remote areas noted by most participants was skill maintenance. One participant also raised a need for national qualifications for rural and remote nurses, which would help with transferability of skills. However, nurses undertook different roles in QLD compared to those held by NSW nurses. Further discussion about the standardisation of rural and remote roles is needed.

Transition from metropolitan or urban locations to rural and remote areas was described noting differences in role requirements due to the difference in context. High levels of stress during transition was noted. Did nurses coming to work in these areas have their own perceptions as to what life would be like in these posts, how realistic were those perceptions and where did they stem from? Was there a wider issue in how rural and remote nursing is portrayed as a recruitment strategy, which does not provide an honest picture of what living and working in a small community can be like? This became a new focus for the study in contributing to theoretical propositions 3b, 4a and 5a.

As with findings from Phase One, Phase Two also supported the centrality community has to roles of rural and remote nurses. Phase Two data highlights the importance and difficulties nurses face in connecting with communities. How are nurses prepared for working with communities? What cultural training do nurses receive to help them integrate and connect within a community to gain the community's trust and strive for successful health outcomes? (Theoretical proposition 3b, 4a, 5a and 5b). The unrealistic expectations of community members were presented in section 5.5.1 and 5.5.4, whilst acknowledging these and providing examples of such expectations none of the participants stated how they managed such situations.

Findings demonstrated a lack of understanding regarding rural and remote areas and the role of the nurse working in this area, which often led to unrealistic expectations by management and those working in tertiary facilities causing frustration amongst participants. Other participants alluded to the fact that it was not only metropolitan areas but also direct line management that did not understand what it was like to be nursing in these areas and exactly what the nurse does on a daily basis.

There was a strong indication that a number of expectations were placed on nurses throughout Phase Two data analysis. These expectations fell into a number of categories, expectations of management, the community, and self-expectation too. It seemed that nurses were taking on roles and additional responsibilities due to wanting to do the best for their patients and meeting the needs of the community. Whilst organisational culture was presented in section 5.5.5 as lacking in support for nurses, maybe there is a question to be asked around whether it is time for nurses to take a stance and not act on such expectations albeit self, community or managerial expectations, in considering their own self-care and risk of burnout? If nurses continue to 'fill in the cracks' in the system can issues be addressed? (Theoretical propositions 1a, 2a, 2b, 4a and 5a).

Another challenge consistently cited within the data was that of professional isolation. Theoretical proposition 5b put forward that nurses use their networks across locations to gain support and information to provide effective healthcare. Whilst Phase One data supported this proposition stating the importance of such networking, the Phase Two data refutes this proposition. Nurses frequently reported that due to where they were working there were minimal professional networking opportunities (with fellow nurses as well as other health care professionals) that offered stimulating discussion, particularly for sole practitioners. If nurses are not receiving this support does this contribute to the burnout expressed by participants working in these areas and what support are organisations providing for nurses in these situations?

Table 5.6 Mapping at end of Phase One and Two – RQ1

Phase One	Phase Two	What is not known? (Relevant theoretical propositions)	Interview Question/Area for discussion
The National strategic framework states that new ways of working to address workforce issues are needed; however, these RN roles are not presented in relation to what they may look like. There is a reduced level of support and exposure to a variety of health care professionals in rural and remote locations. The more isolated the community the more generalist the role of the RN. Whilst there is evidence that roles of RNs are unique due to the geographical location, there is no recent evidence to say why it is so unique.	A decrease in direct patient care due to non-patient care activities. Need to 'fight for best patient care'. High expectations from management (time and care provision), and the community (care provision, boundaries and access to RN). Administration features highly in workload. There is a need to modify/adapt practice. Additional roles such as vehicle maintenance but have the same KPIs as metro nurses. Work across multiple clinical areas and multiple ages. Acting in role of midwife.	Why is there a decrease in direct patient care activities? Are there more patients? Less staff? Higher acuity patients? (1a, 4a, 5a) How does reduced patient care link with administration tasks, which feature heavily? Do staff get time for admin? How much support is available? (1a, 4a, 5a) Working across multiple areas/sites/ages – what affect does this have on SOP/skills/knowledge? (1a, 2a, 3b, 5a) Undertaking training to act as a midwife in their absence? (1a, 2a, 2b, 3b, 3c, 3d, 5a) What are the advantages/disadvantages of having NP qualifications? How does this change the role? (1a, 2a, 2b)	Can you tell me about your background/place of work? Do you think your roles and responsibilities have changed over time? Please describe your participation in research, education and administration. Do you think these differ working in the rural and remote area as compared to an urban or metropolitan area? And if so how?

	Research/audit, management is increasing. Other roles such as travel, transfers, RFDS, telehealth, greater accountability for managing clinical events. There is a difference in employing facilities between QLD and NSW, which affects roles and responsibilities and availability of HCPs. Types of injury have an impact on what nurses manage e.g. coal mining injuries (links to Q4). Expectations from regional facilities are unrealistic. Unofficial on-call. Nurses need to act in roles of other HCPs due to not having them available. Fulfilling the role of a mental health nurse is challenging.	Differences between states need to be examined – is there a difference in the availability of HCPs and what are the different roles e.g. QLD – QAS, x-ray. (1a, 2a, 4a) The geographical location of the facility influences time taken to get to tertiary centres for treatment, which influences role – how? (1a, 2a, 4a, 5b) What is the level of understanding of rural and remote roles by metro colleagues? (4a, 5a, 5b) If working in allied health roles how does this work? SOP? Professional boundaries? Training? Patient safety? Referral? (1a, 2a, 2b, 3b, 4a, 5a, 5b) Mental health component of role How do the lack of resources impact on this role? What are the challenges and how are these overcome? What support is there for the nurse? (1a, 2a, 2b, 4a, 5a, 5b)	

Table 5.7 Mapping at end of Phase One and Two – RQ2

Phase One	Phase Two	What is not known? (Relevant theoretical propositions)	Interview Question/Area for discussion
NMBA provide a number of documents, which delineate standards for RNs in relation to performance, ethics, behaviour and professional boundaries. NMBA also provide guidance to individual RNs as well as organisations regarding decision making and taking on new practices. CRANA provides additional standards for nurses working in remote environments. NMBA provide definitions of advanced nursing practice and advanced practice nurse. NP role has its own set of standards for practice in addition to those RN standards.	Unrealistic expectations of management and community. Urban/metropolitan experience helping/hindering rural and remote nurses. Need to modify/adapt practice. SOP is pushed. There are limited numbers of staff. Fighting for best care. There are a number of barriers to CPD. Availability and/or access to a number of HCPs is a problem especially mental health and midwifery. There is a lack of policies to guide practice.	There are conflicting responses as to whether a nurse should gain experience in a metro/urban facility before coming out to work in rural and remote settings (1a, 2a, 3b, 3c) How is transition from metro to remote managed? (3b, 3d, 5a) How is practice modified/adapted? Why is there the need for modification of practice? (3c, 4a, 5a) Who are RNs fighting for best care with? Does this link to a SOP issue? Alternatively, a resource/management issue? (2a, 4a, 5a) How is credentialing undertaken in organisations? How does this affect SOP? (3a, 3b)	How does availability of other health care professionals influence your roles and responsibilities? How do you think this differs working in rural and remote areas as compared to an urban or metropolitan area? One common theme from the survey responses was limited availability of midwifery and mental health services. Can you comment on whether this is an issue for you and how this affects your role? [If not an issue, do other areas have limited staff availability]. Perhaps you can share an example of when this might have been an issue for you and/or colleagues. Many nurses reported having to modify and adapt their practice to overcome challenges working in these environments – are you able to share an example of when you had to modify or adapt your

The Department of Health has recognised through its framework that RNs require CPD both in providing a skilled workforce and in addressing retention issues.	A lot of out of hours work is undertaken. Bombarded by mandatory CPD with little time for anything else. Concerns over no legal frameworks to cover RNs for extended SOP in rural areas. Extension of role particularly around RFDS, QAS, mechanics, telehealth, taking x-rays, pathology, pharmacy. Advanced nursing skills required in the absence of a doctor. Staff are concerned with workforce, safety.	Extended SOP in the absence of the doctor. When? What? How? (1a, 2a, 2b, 3b, 3c, 3d, 4a, 5a) Do nurses work autonomously *within* scope or *outside* of scope? (1a, 2a) Do expectations by management and community affect scope of practice? (1a, 2a, 2b, 4a, 5a)	practice to manage a clinical situation? How has your scope of practice changed/developed within your current role? In addition, what support have you received through this? Does your organisation have a credentialing committee? Are you aware of the credentialing process? Have you been through the credentialing process?

Table 5.8 Mapping at end of Phase One and Two – RQ3

Phase One	Phase Two	What is not known? (Relevant theoretical propositions)	Interview Question/Area for discussion
NMBA provide guidance as to the number of hours of CPD activities RNs need to complete annually to be able to re-register. There are many mandatory requirements for RNs working in NSW and QLD Health. There are various incentive packages which offer RNs working in rural and remote locations additional CPD money and time. There are postgraduate programmes available to RNs which aim to prepare them for rural and remote practice. These offer a variety of contextual teaching and application. The NP accredited programmes available offer limited contextual practice and have several inhibitors to NP students being	CPD is not always appropriate i.e. taught in a metropolitan hospital with no consideration for how rural and remote context differs. Professional development allocation in terms of hours and financial support unknown amongst nurses. Many nurses have to self-fund their study. Online courses are used. Access to internet can be an issue. RANIP entitlements differ across QLD. Managerial and community expectations.	How do nurses maintain their knowledge of all specialities following undergraduate training? (1a, 3b, 3d, 5a) How do nurses maintain their skills when not frequently using them? (2b, 3b, 3d, 5a) What happens when nurses need to use a skill that they have not maintained? ((1a,2b, 3b, 3d, 5a, 5b) How does NP training prepare nurses for working in R&R? (3a, 3c, 3d, 4a) What is the ideal level of experience to work rural and remote? And how does experience fit on the trajectory of Novice to Expert (Benner, 1984)? (3a, 3b, 3c, 4a)	How important do you think continuing professional development (CPD) is to your employer? Have you ever had to self-fund your CPD and if so, why did you choose to do this? [How much did you spend? Did you ask for employer funding first?] Do you feel that after mandatory training you are able to pursue your own personal choices regarding CPD? How and where do you access CPD? Are there any issues with this? Some nurses have always worked in small rural or remote areas whereas others have come to these areas following working in a larger urban or metropolitan hospital/community – can you see

able to develop their clinical skills under supervision of a suitably qualified clinician. RIPRN offers RNs the opportunity to become endorsed to supply and administer medications in the absence of a doctor. However, RIPRN is currently undergoing a consultation with regards whether it should be withdrawn and replaced with all nurses being able to prescribe.	Nurses report being a 'Jack of all trades' doing everything, often without medical support. There is a need for contextual programmes. Nurses in rural/remote areas want equal opportunities for CPD as metro nurses. 24% of QLD and 24% of NSW respondents reported to not completing any CPD since starting their current role.	What is/isn't taught in metropolitan hospitals. What makes education inappropriate for rural and remote RNs? (3d, 4a, 5a, 5b) What are the advantages/disadvantages to online learning? Does an online course give nurses necessary clinical exposure? What are the alternatives? What are the preferences? (3d, 4a, 5a) Are entitlements made known to RNs anywhere? (3b) Are there any issues with transferability of skills? Are the skills required different from state to state? (1a, 4a) Are there safety/legal issues with being a 'Jack of all trades' and doing a bit of everything? Is this term being used in relation to a defined SOP or not? (1a, 2a, 2b, 4a, 5a) Are opportunities for metro nurses better than for	any advantages or disadvantages to either of these pathways? If you were training a nurse that was new to rural and remote nursing what would be your top five things to teach them (skills or knowledge)?

		rural/remote nurses and if so why? (3d, 4a) What inhibits staff undertaking professional development leave/funding? (3b, 4a, 5a) Is the lack of knowledge regarding CPD allowances a local one or more widespread? (3b) Mental health - What is the preparation for this? (2a, 2b, 3b, 3c, 3d, 4a, 5a) What happens to the development of those nurses that are not able to self-fund? (3b, 5a)	

Table 5.9 Mapping at end of Phase One and Two – RQ4

Phase One	Phase Two	What is not known? (Relevant theoretical propositions)	Interview Question/Area for discussion
RNs living and working in small communities may be more likely to be exposed to issues around professional boundaries. NMBA provides guidance to nurses regarding such issues. Whilst guidance is given regarding professional boundaries there are difficulties when working as a sole practitioner. The more isolated the community the more generalist the role of the RN. Rural and remote locations in Australia are unique and need additional consideration regarding health services. The Department of Health has a national strategic framework that offers broad objectives for health in these areas.	Increased autonomous practice in these areas. There is a strong connection with community. The lifestyle that rural and remote nursing offers people is a motivating factor as well as a challenge. There are major issues with recruiting and retaining staff in these areas. Issues with having access to Indigenous Health Workers out of business hours. Difficulties in transitioning from the urban environment to the rural/remote one are noted.	Does an increase in SOP come with this autonomy? (2a) Why is transition so difficult for nurses? What are their expectations on coming to rural/remote nursing? How are these expectations met/not met and why? (1a, 3b, 3c, 3d, 4a, 5a, 5b) What support is there for transitioning nurses/new nurses? (3b, 3d, 5a, 5b) How do community/cultural aspects differ from metro areas? How are nurses prepared for this difference, this need to connect with the community? (3b, 3d, 4a, 5a) How does liaison work between metro environments and rural and remote? (4a, 5a, 5b)	How important is understanding the culture of the community to the success of your role? Can you give me some examples? Can you tell me a little about how the community in which you work influences your practice? Is there a need for you to be available out of hours? Do you have concerns associated with that if so, what are they? [Have you alerted your supervisor? How do you manage this aspect of your role?]

Due to the socio-economic challenges facing people living in rural and remote areas there is a higher incidence of mental illness, suicide, alcohol and drug use.	Sense of culture and community is important. Challenge of accessing CPD. Use of telephone/phone/needing to modify and adapt practice. Need to transfer patients to tertiary centres. Picking up patients from metro areas following treatment. Non-clinical roles e.g. car maintenance. Sole worker roles. Working across multiple areas. Location/access/travel/distance. Staffing issues. Clear links to the type of community and injuries that nurses may deal with. QLD have a much higher Indigenous population than NSW.	No clear agreement between whether online education is better than not, needs investigating further. (3d) Many nurses said that they had not undertaken any CPD in their current role – is this specific to one LHD/HHS or more widespread? Why are people not meeting their CPD requirements? (3b, 4a, 5a) How does the sole worker role work? Hours? Responsibilities? Self-care? (1a, 2a, 2b, 3b, 3c, 4a, 5a, 5b) Explore more around how the makeup of the community affects the roles of RNs (4a, 5a, 5b) How is culture and cultural safety/awareness/training viewed between QLD and NSW? Is there any relation to higher Indigenous populations in QLD? (3b, 3d, 4a, 5a, 5b) What happens if the RFDS cannot land for example? How	

	The geographical location and terrain impact on how fast tertiary services can be accessed and have a direct impact on roles. The community have unrealistic expectations of what nurses can do.	does this affect roles of nurses? (1a, 2a, 2b, 3c, 4a, 5a, 5b) How can the unrealistic expectations of a community be managed? (2a, 2b, 4a, 5a) Lack of MH, SW, ATODS – are these linked to a changing demographic? (4a, 5a)	

Table 5.10 Mapping at end of Phase One and Two – RQ5

Phase One	Phase Two	What is not known? (Relevant theoretical propositions)	Interview Question/Area for discussion
CRANA offers professional support and networking to nurses working in rural and remote locations. Incentive packages are offered to RNs to recruit and retain them. There are varieties of support mechanisms available for RNs (telehealth, TEMSU, manuals, RFDS). Rural and remote locations have workforce issues around recruitment and retention of staff.	Covering staff sickness is a problem. There is a decrease in direct patient care. Expectations/understanding – community and managerial. Burnout. Amount of overtime is high. Workplace dynamics can be challenging. Difficulties in maintaining a work-life balance. Self-care often doesn't happen. Management doesn't understand what it is like. Lack of resources, distance, location.	Coming in when off duty – is this an expectation from management? Community? Self-expectation? Is this unique to rural and remote? (1a, 2a, 4a, 5a) Why are managers encouraging staff to self-fund CPD activities? (3b, 5a) If coming in and not officially on duty how does this impact on vicarious liability? How often is this happening? (4a, 5a) Large concerns over skill maintenance with RNs not regularly using many skills that they have been trained for – how can this problem be overcome/addressed? (3b, 3d, 4a, 5a)	One of the challenges frequently reported within the survey was the issue around skill maintenance. Many nurses reported being concerned that many skills were not regularly used and as such they were not confident. Could you comment on this? Can you give a few examples of skills in which you have been trained but would not feel completely confident in using should the need arise? Overtime (both paid and unpaid) and staff shortages were frequently reported from respondents, has this been an issue for you/your organisation? How do you stay motivated? How often do you feel overwhelmed and incapacitated as a result of being overworked? [if applicable].

	Barriers to CPD. Nurses seek help from others by phone, they seek out training and do it in their own time and self-fund it. Nurses come to work even if they are off duty. Concern held over their personal safety and security. There is a lack of stimulating discussion due to professional isolation. Nurses generally have a real passion for rural and remote nursing. Personal characteristics help nurses through challenges such as a sense of humour.	Many barriers were highlighted but how do nurses actually *overcome* them? (5a, 5b) How do nurses that cannot afford to self-fund CPD remain up to date, safe and competent? (3b, 5a) How does professional isolation affect practice? (1a, 3c, 4a, 5a) Where do nurses get their support from and how does this link to self-care and burnout? (3d, 5a, 5b) Are nurses concerned with levels of staffing and resources? (4a, 5a) What are the difficulties faced when transitioning to rural and remote practice and how are these overcome? (3b, 3d, 4a, 5a) How do nurses, particularly sole practitioners, manage lack of opportunity for networking? (3d, 4a, 5a, 5b)	Can you give me an example whereby you have had to face a clinical challenge and tell me how you overcame it?

5.7.2 Examining the rival explanations

Two rival explanations were put forward to be explored throughout Phase Three.

The required patient documentation to be completed by an RN is considered as 'administration' as opposed to routine administration tasks such as answering the telephone, printing labels and findings notes.

In research question one the time to complete administrative tasks taking nurses away from direct patient care was noted. In considering the rival explanations, the researcher needed to ascertain what nurses considered administration tasks. Whilst some participants did list tasks such as answering the phone, many used the terms 'administration' and 'documentation' interchangeably. The researcher wanted to clarify exactly the meaning of these terms according to the participants.

Nurses are not clear on what constitutes continuing professional development and as such are not including completion of mandatory training and/or non-qualification courses when reporting on professional development opportunities.

Many nurses reported that they had not completed any CPD since beginning in their roles, which raises concerns as to meeting regulatory requirements. However, the researcher questioned whether nurses were not considering mandatory training as part of their CPD requirements as some thought of this as an organisational mandatory requirement, not a personal training opportunity. Therefore, Phase Three needed to establish whether nurses were reporting all training or only referring to external courses.

5.8 Chapter summary

This chapter has presented key findings following analysis of the Phase Two questionnaire. Content analysis was used, including within case and cross-case analysis. Due to the small and/or uneven number of participants within each of the remote area classifications across

cases, the researcher was limited in her cross-case analysis. The analysis and subsequent findings from Phase Two, however, have contributed towards the theoretical propositions for the study and differences between cases and across cases have emerged. Two rival explanations evolved from the Phase Two findings. These explanations are further considered in Phase Three.

The questionnaire in Phase Two met its aim to collect data from research participants to better understand their roles, responsibilities and context of their work. Issues were highlighted but insufficient detail was obtained. Using Yin (2014), further planning of Phase Three data collection occurred with the intention of gaining further detail to obtain an explanation. The chosen method was a semi-structured interview. Chapter Six presents the findings from Phase Three of the study.

CHAPTER 6. PHASE THREE

"You pick up a retrieval bag and away you go in the ambulance hoping like hell that when you get there there's going to be nothing wrong cause you've really only got one ambulance and one driver, and you've got to try and deal with whatever comes through" (QLD37)

6.1 Introduction

This chapter presents findings from the third and final phase of the study, a semi-structured telephone interview with 20 participants. Phases One and Two gained a chain of evidence for some findings. However, there were still questions unanswered. Additionally, two rival explanations arose from Phase Two; how nurses defined *'administration'* tasks and how they viewed *'professional development and CPD'*. An interview approach was used to gain clarity about rival explanations as well as to obtain greater detail about the experiences of nurses working in rural and remote environments.

This chapter follows a similar structure to Chapter Five. The chapter begins by presenting the differences between the participants in Phase Two and Three (other participant demographics are presented in appendix F). Next, final defined units of analysis for Phase Three are provided. Subsequently, findings from the thematic analysis examining all data together are then presented, discussed first as a whole and then a within case and cross-case analysis comparison is presented.

Chapter Seven will follow and will demonstrate the advanced analysis of data triangulation through pattern matching across the three phases (Yin, 2014).

6.2 Aim of Phase Three data collection

The aim of Phase Three data collection and analysis was to collect additional in-depth data to further explore the findings of Phase Two. Semi-structured or open-ended questions were created for those areas requiring increased depth of explanation and to confirm or refute a theoretical proposition. Additionally, Phase Three explored the two rival explanations put forward at the end of Phase Two.

6.3 Participant demographics and units of analysis

The demographics of the 20 Phase Three participants was representative of the larger Phase Two sample (n= 75) except for the transience of the workforce. Phase Two data indicated a transient workforce with a variety of responses as to how long the participant was “planning on staying both within their current role and in rural and remote nursing”. For the 20 participants, their data showed an increased expectation of participants to stay working in rural and remote areas for greater than five years, 45% (n=9) of which stated that they would stay within their current role for greater than five years.

6.3.1 Final units of analysis

As suggested by Yin (2014), the defined final units of analysis should be reviewed in the final phase. This included how many RNs there were in each State, as well as how many were from each geographical classification (figure 6.1). Each individual nurse is represented as a unit of analysis. The State of QLD is larger in comparison to NSW and therefore incorporates greater areas of remote and very remote areas. As such, the geographical distribution of participants is higher in QLD and is representative of the geographical differences between these States.

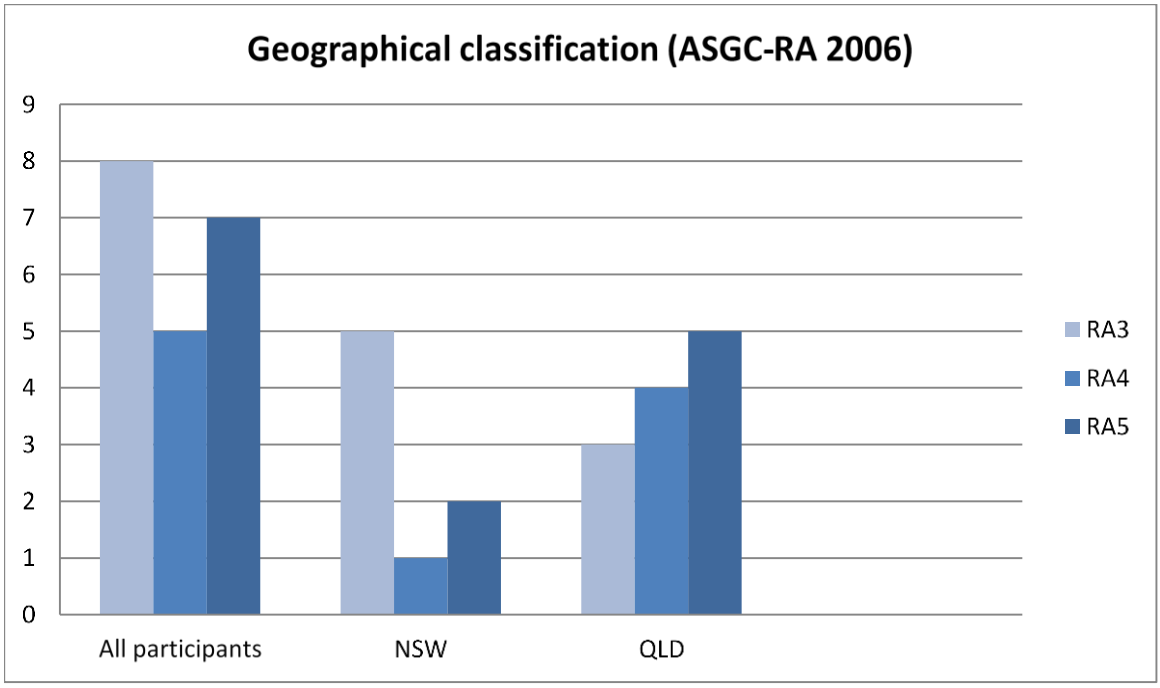


Figure 6.1 Geographical location of participants



Figure 6.2 Phase Three units of analysis

Each box represents one nurse working in their workplace's remote area classification, total 20 participants

6.4 Analysis of interviews

Chapter Three (section 3.5.2.2) presented the six stages of the chosen method for thematic analysis used in this study as outlined by Braun and Clarke (2016). To remain true to Yin's approach (2014) the Phase Three findings first consider if the research questions have been answered. All secondary research questions were answered following data analysis of Phase Three. A summary will be provided for each of the research questions with findings presented in section 6.4 as they relate to the five themes and their sub-themes.

There were many areas that supported Phase Two findings. However due to the word limitations of this thesis, only new findings will be provided in these sections.

6.4.1 What are the roles and responsibilities of working in rural and remote areas of Australia?

At the end of Phase Two there were three key areas requiring further exploration of the first research question. These were:

- the administrative role of the RN;
- the perception that direct managers did not understand the RNs role and therefore their expectations were unrealistic; and
- the perception that RNs undertake roles of other members in the health care team during their absence (findings focused on an extended scope of practice. See section 6.4.2 for this discussion).

These will now be presented.

6.4.1.1 Administrative roles

Phase Two findings indicated that participants had noticed an increase in administration tasks, which impacted on direct patient care delivery. At the end of Phase Two a rival explanation was put forward for this which suggested that participants were including the completion of the required patient documentation under the term 'administration' (refer to section 6.7.1.1.).

Whilst increased documentation is a continuing frustration in all areas of nursing and not specifically rural and remote, it was the non-nursing administration tasks that needed to be clarified in this study. Thus, Phase Three obtained examples of such administration tasks that formed part of the RNs' roles and responsibilities that could take the RN away from direct patient care. One example of such activities was:

> *"They built the building but they didn't budget for any staff to actually man the reception… where I sit, if the bell rings, you know, you try to ignore it but, you can't, there comes a point when you can't because there's no one else who's going to get up and get it so you end up being the receptionist, the courier, all of those" (NSW30)*

The amount of data entry also falling on nurses was noted as:

> *"The nurses are just doing all this data entry and you know a lot of financial and billing aspects to it that people are drawing data from behind the scenes, but they are using us to do it and it's just taking us away from direct patient care" (NSW30)*

Some nurses aspired to always putting direct clinical care first, but this meant completing paperwork after hours and on weekends, or, in the case below, coming into conflict with management. QLD10 stated:

> *"Patients will always take priority over paperwork… sometimes they'll say you need this by close of business today, if I've got a sick patient they will just have to wait… everyone thinks they have the most important job in the world so I'm always in a bit of trouble like that but patients always come first" (QLD10)*

6.4.1.2 Management understanding and expectations

Participants spoke of their perceived disconnect between managers and nurses. Participants wanted managers to understand and recognise both the role that they do, as well as the conditions in which they work. One participant stated:

> *"There were a lot of people that were just exasperated all of the time about how we were treated, what we were having to deal with on a day to day basis … I think it's*

more that recognition from … a manager level sort of person … she doesn't [care], she is basically going to retire in the next 3 years" (QLD45)

Nurses repeatedly spoke of the increased management expectations on them. One participant said:

"I feel there is more and more expected of us with less and less time… workload has gone up, so we have more presentations and the place is busier than ever and it feels like we are pushed to get things done with less support… I think its management… Management, there's definitely more from management… more pressure coming from management than ever before. I think it's a lot more, a lot more stressful" (NSW72)

6.4.1.3 Additional findings

The Phase Three data analysis also produced some further findings contributing to answering the first research question. The findings identified many general and diversified roles, which rural and remote RNs undertake compared to urban/metropolitan nurses. The findings clearly showed a need for these nurses to have a broad knowledge base. One reason for these roles was simply there was no other person available.

When looking beyond the general view in more detail of what nurses do, five key areas were identified. These were:

- an increased use of technology;
- changes in the acuity and complexity of patients that they were required to manage;
- on-call consultation responsibilities;
- increasing levels of responsibility early on; and
- an inability to fulfil all of their roles and responsibilities.

The increase in technology in health service delivery has also changed the nurse's role. The use of telehealth has changed the way nurses communicate with, assess and educate patients.

"You know they have changed [RN roles] because of the improvement in technology, we rely a lot here on video conferencing, on telehealth in particular" (QLD03)

"We do physio by telehealth … the physio will dial in, I have the person in the room, … the physio demonstrates what she wants me to assess the patient with and then I do that with the patient and the physio is watching … I am not trained … and then of course giving them all the advice on the exercises" (QLD36)

Participants spoke of changes to practice particularly for sole practitioners. These changes have resulted in higher workloads. The first reason presented was a trend of higher acuity and complexity of patients in rural and remote health care services. In the past, such patients were flown to larger centres. Now the preference was to keep the patients in local hospitals and services. The second reason for increased workload was due to being on-call for consultations. Previously on-call consultations were kept to a minimum, being called when a patient required the nurse's help. Now nurses were regularly visiting patients at weekends to deliver treatment and monitor patients. With this increase in workload comes an increased responsibility.

At the end of Phase Three, research question one was answered. In summary, the roles and responsibilities of the rural and remote nurse are unique and vast. Nurses portray an environment in which changes to health care services, increased responsibilities and on-call consultations, and use of technology are substantially affecting their roles. Due to the increasing acuity of patient presentations and lack of time, many nurses perceived there were key aspects to their role they were not meeting; PHC is one such role. Management expectations of the role of the rural and remote nurse were described by participants as unrealistic and as contributing to an unsustainable way of working.

6.4.2 How do rural and remote nurses work within their scope of practice?

The researcher wanted to ascertain how nurses worked *within* their scope of practice but also to identify the circumstances surrounding those times when nurses worked outside their scope of practice.

Within this analysis there were six recurring factors presented by participants, which were:

- Frustration;
- working on the ambulances;
- a lack of Allied Health Professionals (AHPs);
- a lack of midwives;
- relationships with doctors; and
- expectations.

Findings did reveal a number of reasons nurses opt to work outside their scope of practice and these are further discussed in section 6.5. Whilst it is evident that there are a body of nurses working in rural and remote areas with a carefree approach to their level of practice this was by no-means across the board. There were far more nurses with concerns regarding their scope of practice and who were keen to share ways in which they ensured that they remained within their levels of accountability despite the challenges highlighted above. These strategies included;

- simply choosing not to undertake the activity;

> *"There are things that I think I could do that I'm not allowed to do… but I just think well I can't do that and I just try to find a way of doing it you know, or I know that I need to move to somewhere else that's more isolated and then I'll be able to do it… You get very good at saying, knowing what you are prepared to do and what you are not prepared to do and holding that question in the back of your mind so if I was standing in front of a coroner right now, how would I explain what I was doing?" (QLD40)*

- gaining support from others;

> *"[TEMSU] see what we were doing and giving us directions and guiding us through… I felt as supported as you possibly could be with this geographical isolation, clinically supported I thought, you know you couldn't do better than that to have a highly skilled doctor watching and listening and providing guidance as you are doing it" (QLD36)*

- tweaking guidelines and policies to suit their needs; and

> *"Probably tweak them [guidelines] a little bit to suit your purpose so that maybe you can get some pain relief going for a particular presentation. And maybe they don't quite meet that guideline, but you can sort of use that guideline" (NSW18)*

- undertaking additional study including Nurse Practitioner training.

> *"I think that rural nurses… push their scope of practice all the time so for me going for the Nurse Practitioner in some ways was a relief because you know off the record, it just legalises what you are kind of doing… it's about me breathing a bit easier and legalising what I have probably been close to doing… I felt it was more about legalising it and being able to write a prescription, I mean hallelujah! … it's ironic that the metropolitan areas that have actually got the majority of the positions" (NSW30)*

There was a general consensus throughout Phase Three findings that was consistent with Phase One data findings that rural and remote nurses needed national regulation. Many participants spoke of being hopeful that in 2010 when national regulation came into force, that there would be a national standard for rural and remote nurses too, but this was not the case. This excerpt from a nurse that had experience in working rural and remote in a variety of different States and Territories highlights the need for this national regulation and national agreement as to a scope of practice for the registered rural and remote nurse. Her view represented the views of many nurses, when she said:

"They need to define what a remote area nurse is on a national level and let us know what the scope of that nurse would be…I think if they could just decide and I don't mean each state I mean as a nation, just like now we are Registered Nurses of Australia, we need to be remote area nurses of Australia as well … once they determine what that scope is then they can target educational programmes and have a consistency of what that is and have consistent levels of skills" (QLD40)

In summary, the findings from Phase Three have specifically explored ways in which nurses work within their scope of practice and why they may step outside of this scope. Research question two has now been answered.

6.4.3 How do rural and remote nurses prepare for their roles and responsibilities in rural and remote Australia?

Throughout the interviews the researcher explored nurses' experiences of how they prepare for their roles and responsibilities. Participants were passionate about the preparation for rural and remote practice with several key issues arising like:

- Experience;
- Support;
- Skills;
- Accessing professional development;
- Mandatory training;
- Other courses;
- Nurse Practitioner endorsement; and
- Skill maintenance.

These key issues are presented in section 6.5. In summary, research question three has been answered. Nurses in general feel that experience is more important than CPD; a new finding from this study. There was also a strong view that rural and remote areas are not appropriate for the majority of inexperienced nurses and especially newly graduated nurses. Preparation for practice is inconsistent in what nurses are able to undertake and it can be seen that there

are issues surrounding the context of training offered and the opportunities to maintain competence in skills are not always used.

6.4.4 Why and to what extent are eco-social influences so important to the scope of practice in rural and remote Australia?

The theoretical proposition for this research question was that a nurse's practice is directly influenced by the eco-social influences of the community. Five main areas arose:

- Patient presentations;
- Community integration;
- Cultural understanding;
- Aboriginal Health Workers (AHWs); and
- Challenges.

In summary; the findings answering research question four show a clear emphasis on community involvement and cultural awareness along with some of the potential challenges and conflicts to working in small communities. These are discussed in section 6.5. The eco-social influences are evident, in particular those that influence when community members access services and the increasing demand on mental health services. Some of the further challenges nurses highlighted in regards to these are presented in answering research question five (section 6.4.5).

6.4.5 How do rural and remote nurses overcome barriers to sustain motivation and address challenges in providing effective healthcare?

There were a number of challenges that were repeatedly discussed by participants. These are discussed further in section 6.5 and included:

- personal safety;
- health and wellbeing of the nurse;
- recruitment and retention;

- mental health provision and training;
- networking;
- debriefing;
- organisational culture;
- perceptions; and
- social isolation.

Several challenges were highlighted and provided answers to research question five. In summary, some of the challenges are experienced at an individual level such as burnout and effects on health and wellbeing, whilst others are at the wider organisational level. All challenges, however, have an impact on the practice of the rural and remote nurse which, if not addressed, can only intensify an already concerning nursing workforce shortage. Despite all of these challenges, nurses do manage to find motivation to continue working in these environments and it is appropriate to conclude this section with a participant excerpt to support this:

> *"I stay motivated in that its nicer to see the person you looked after a couple of weeks ago in IGA [supermarket] … and they give you the whole debrief in the cereal aisle but that's fine and that still amuses me at this point and I do feel that it is more of a giving back than it has been at any other point in my career, I don't want to sound like a saint there or a charitable institution but it's nice to personalise it again" (QLD62)*

6.5 Themes and sub-themes

The next step in data analysis was to identify themes from all the data collected from the in-depth interviews. The sub-questions at this point were not relevant, rather all the data was considered as a whole as is typical of qualitative data analysis when looking for significant themes. At this point, the researcher had to be open for new insights (Polit & Beck, 2014;

Braun & Clarke, 2006), irrelevant to specific questions. To achieve this step, themes and sub-themes were identified from the thematic analysis undertaken using the same Braun and Clarke (2006) six-staged approach as presented in section 3.5.2.2 in Chapter Three. Appendix G provides more information about how the codes developed into themes and sub-themes. The approach by Braun and Clarke (2006) was modified to include an additional stage of categorising prior to deciding on themes as this had been done within the content analysis in the previous two phases. By doing so, the researcher was able to cross-reference the themes generated to the other two sets of data when converging her lines of enquiry through the triangulation process (See Chapter Seven).

6.5.1 Theme One: A medley of preparation needs for work in the rural and remote area

The first theme that evolved was that of preparation. This was an area that participants were passionate about throughout Phases Two and Three and was found in Phase One documents. There were a number of sub-themes that arose under this main theme.

Sub-themes included:

- Experience
- Transition
- Extended skills
- High risk skills
- Lost and found skills

6.5.1.1 Experience

There was an overwhelming interest in the amount of experience nurses have in relation to their success and survival in working in these areas. Whilst CPD was discussed at length as something that was needed, participants believed experience was far more important in the preparation of nurses. Significantly, this differs from what has been predominantly presented

in previous literature. One participant; a sole practitioner, presented an analogy depicting the experiences of many of the participants, which was:

> *"It [preparation] is more about experience than the CPD that's a little bit of the things that keep it together. So, I think when you talk about experience you can talk about a building and you've got multiple storeys [experiences] and the more storeys you've got and the PD is like the glue that, the cement that keeps all the storeys together. If you never did any PD then your building is going to crumble it's going to fall down, get outdated. If you do tons of PD and you know become the world's best attender at every course there was you've got a ton of cement and not any storeys" (QLD36)*

Another said:

> *"You definitely need that [experience] … the broader your experience the much more useful you can be … really good experience in lots of different [metropolitan/urban] places before you put yourself in a place like this [remote]" (QLD36)*

The discussion about the amount of experience led to comments about the suitability of new graduate nurses working in rural and remote nursing. Of the 20 Phase Three participants just two of them felt that these areas were suitable for new graduates (both participants had a managerial aspect to their role). Two separate issues were raised; firstly, the issue of the suitability of a graduate year in a rural and remote area (and support during this time). Secondly; the perception or expectation that new graduates themselves hold and subsequent retention issues. One participant said:

> *"… inexperienced grads who are doing their grad year in a rural setting I think it can be overwhelming… feel that they need more support… and that often is not available… new grads are basically left to flounder, I think they get very scared… a lot of grads will then move onto different careers… they didn't realise that they would get thrown into those scenarios at quite such an inexperienced level… if they go out*

as new grads a lot of the time they don't come back because they've been frightened out of their wits because they actually haven't got the skill, the knowledge or the stamina" (QLD37)

When asked how much experience this participant felt was necessary:

"You need to have at least five years' experience before you head rural" (QLD37)

One of the participants that did have a role in recruitment acknowledges that to put new nurses in these situations is not ideal:

"Try if at all possible, not to put grad nurses in those situations but it doesn't always work like that. We've had grad nurses who have been absolutely fantastic under pressure… stood up to the mark, did everything beautifully, had others that have struggled but none of them that have been really bad, somewhere along the line they have picked up enough, in uni or somewhere, to get them through" (QLD10)

"We put our new graduates into our remote facilities, you know this is where we are going wrong, people aren't starting to think outside the box, if we are going to look at sustaining services in these small towns and maintaining a minimum standard of health then you need to think outside the box" (NSW02)

Whilst there was agreement amongst participants that inexperienced nurses should not be working in rural and remote areas, views around preparation were not so clear. Participants were asked their opinions on the type of experience necessary to prepare a nurse for working rural and remote. There was uncertainty as to whether experience should be gained in rural or metropolitan areas or a combination of both. Some participants such as QLD43 and QLD62 below, were very clear that metropolitan experience was necessary in order that nurses could consolidate their skills before working in rural or remote:

"My view is that they all need to go metropolitan and consolidate their skills. It's about consolidating what you're learning at university" (QLD43)

"… come from a bigger centre they would have looked after, they would have seen a volume, it's about seeing a volume of patients because most of them are going to be normal and then you are going to have one or two aberrations, you need to see that volume of normal before you work out what is abnormal. If you only see five patients then you don't, and one of them was not quite right, you don't realise that that was actually the really worrying one … I will always say to them do six months or 12 months of general acute medicine" (QLD62)

Other participants noted the difference in skills sets between rural and metropolitan areas. The excerpt below from QLD26 highlights the frustration of having nurses arriving from metropolitan areas that do not have advanced skills. At the same time, they also note that when something acute and not so familiar comes through the doors it's of benefit to have such nurses. She states:

"When we have had girls that have come straight from a big ward out to us it's been really frustrating because they can't do a lot of those things, even just taking blood or putting a cannula in they can't do it and they find it really hard to sort of juggle everything, all the tasks. At the same time if something comes in like you know someone's got a drain in and the drain needs looking at or some kind of medical type thing it's really handy to have nurses that have done that because they know how to do it" (QLD26)

Whilst acknowledging less support they appear to be gaining more skills. One participant stated:

"I think if you're starting off your career and you start off in the city, you're getting that support so you can consolidate your skills, you can build up your confidence before coming out rural… I think there's lots of advantages for starting off rural as well like for example for me in my first year I wasn't supposed to be cannulating, I wasn't supposed to be doing any of the higher-level skills but because I was working in an area where it was me and an EN they said look we need to train you up and

get you skilled in these areas so that I could cope with whatever comes through so I got to do a lot more, a lot faster than what my city colleagues did" (NSW20)

6.5.1.2 Transition

The level of support offered to nurses on transition to a rural or remote environment was consistently highlighted as poor throughout the interviews. One particular area in which participants felt support was lacking was in the provision of an orientation and mentorship programme. As they stated:

> *"You don't get a proper orientation, there's no identified preceptor… there's no mentor… we don't have an intro package for staff that's used… issues with pay, difficulties getting clinical supervision, difficulty getting your professional development entitlement … when you are working in an area where it's challenging anyway, really if we want to nurture and encourage people we are not doing a very good job" (QLD46)*

> *"I didn't get any sort of, like there was an orientation booklet that existed, but I had to randomly kind of find it on my own just because I happened to search on the internet and I found the orientation booklet and I was like this is really helpful to me, but I think that's insane and I shouldn't have had to seek that out on my own" (QLD45)*

Importantly this sub-theme of transition was not only shared by those nurses that were inexperienced but also those that had been nursing for some time and were transitioning from a tertiary centre to working rural and remote. As this participant shared:

> *"I had to change my practice from emergency through to the remote setting… that was a really big change… rock up on day one… suck it till I made it… safely but kind of like run with something that was really quite foreign to me having to be stationed" (NSW72)*

6.5.1.3 Extended skills

Findings demonstrated that nurses working in rural and remote areas need to possess a number of extended skills. These are varied and depend on the type of facility in which the nurse is working and the community in which it is based. Participants shared examples of such extended roles:

> *"Suturing, um, looking in ears, using the slit lamp too and Furosine eye drops to look for a foreign body… when someone walks through the door here [with a laceration] we don't think twice about doing it" (QLD43)*

> *"Supervisor role as well, after hours and things like that; I'm sort of a nurse in charge… we do everything… nurse initiating medications… we are x-ray operators… venepuncture and cannulation, the [metropolitan] nurses don't do that" (QLD26)*

One particular role in which participants felt that extended skills were needed, and scope of practice is commonly exceeded is when the nurse is working on the ambulance. This role is unique to the rural and remote nurse. When working on the ambulance, nurses work under different guidelines and/or scope of practice. Whilst some nurses have the ability to adapt between roles others have difficulties remaining within the boundaries of either role. As these participants state:

> *"The nurses are the ambulance officers… we have standing orders and the orders in the ambulance are different from the ones in the hospital because we operate at a different level. It is normally in the ambulances that people exceed scope when you have zero phone you know you have black spots where you can't get anyone, and a lot of times we have given drugs for a patient without a doctor's orders and they were outside the scope of what, well we've either exceeded the dosage that we are allowed to give… so that [morphine] gets exceeded a lot" (QLD10)*

> *"We are actually the ambulance drivers, and when you are operating a NSW ambulance you operate under the auspices of NSW ambulance, not the LHD as such. So, this person decided that they could constantly operate outside of their scope… I'm talking about putting ET tubes down... they don't understand the context of where they are operating" (NSW02)*

It was the extended skills that participants reported feeling unprepared for and it was evident that for some nurses there was a conflict between remaining in scope due to not having the skills necessary to perform a task and compromising patient care. The following excerpt demonstrates the limited insight by the nurse as to patient safety. The nurse acknowledges that she does not have the appropriate skills, thus it would be inappropriate for her to carry them out. At no time, however, did that nurse discuss any attempts to ensure that the tasks were undertaken by someone *with* the skills. In this case the nurse was so concerned about not stepping outside of her scope of practice that fundamental assessments were subsequently omitted. This highlights a gap in the clinical preparation of nurses working in rural and remote locations but also a lack of critical insight into their clinical decision-making. QLD45 stated:

> *"There have been a few times where I'm having to do some charting on a mum, baby… they have quite a different charting what you are supposed to be recording on post-partum mums … sort of know what it means, but fundus checks and all that sort of thing I have no idea and then you feel weird because you are leaving some of that not filled out… I'm not going to do something that I have no idea how to do, as that's obviously not appropriate… I'm assuming it should be done at least once a shift if not more, if there isn't a midwife available then it's just not happening" (QLD45)*

In exploring the preparatory needs, a number of courses were highlighted as essential to be fully prepared to take on the extended skills required of the rural and remote nurse. These included; cultural awareness, certificate courses, RIPRN and short courses including those provided by CRANA. Culture is discussed in section 6.5.2.4.

Findings from Phase One indicated what courses and training were available to nurses working in rural and remote areas. Phase Two provided numerical data as to which courses had been or were being undertaken by nurses. In Phase Three an exploration of how well these courses were preparing them for their practice was required. There were four courses or types of courses that nurses discussed; the Graduate Certificate in Advanced Practice (rural and remote), RIPRN, short courses and Master of Nursing (Nurse Practitioner).

There were a number of Graduate Certificate advanced practice courses that nurses had undertaken, however the researcher was interested in exploring the program that majored in rural and remote nursing practice. The following excerpt from a participant that completed the program discusses the opportunity that the course presented to the participant in opening her eyes to the wider issues surrounding rural and remote health and health service provision. The course appeared to provide the context-specific content that so many of the nurses reported other courses did not. This participant encouraged her nurses within the facility to undertake this particular course over and above others due to its appropriateness for the application of nursing practice to the specific context of the rural and remote environment. She said:

> *"It prepared me in looking at nursing holistically and… the unique health needs of the rural population as a whole, it highlighted to me the centralisation of services and just gave me a bigger perspective on rural health… and the lack of services… I guess it equipped me somewhat for what skills that I would need to provide good nursing care as a rural nurse" (QLD43)*

The second course that was highly regarded by nurses and managers was that of the RIPRN endorsement. Phase One highlighted the consultation that took place during Phase One data collection regarding widening prescribing rights to all nurses and removing the RIPRN endorsement for rural and remote nurses. Nurses did have differing opinions on the purpose and benefits of the course. Some reported it being beneficial to be able to manage patient presentations under the health management protocols whilst others, as depicted in the excerpt

below, do not feel confident in this level of autonomy. In these cases, the patient assessment skills were used to obtain the level of detail required to provide an effective picture of the patient over the phone to the doctor. QLD43 stated:

> *"Some of them are a bit nervous about using the health management protocols… the value of the RIPRN … is not using a health management protocol and prescribing ourselves, the value I see in it is the skills that you learn doing a good primary survey, a good secondary survey and take an excellent history, and then provide that information to your doctor" (QLD43)*

Whilst participants acknowledged the benefit of longer courses, it was generally the short skills-based courses that nurses valued the most. In particular it was those courses that had an emergency skills-based focus such as the FLECC and MEC training. Two participants said:

> *"It wasn't the Master's degree that helped manage that [trauma patient], It was the short pre-hospital seat of your pants nursing emergency, airways, breathing, circulation stuff that helped me manage that" (NSW11)*

> *"It [training] is online a lot of it, and we do a lot of video conferencing as well… one of the best things that we had was the simulation bus… we had a great week of scenarios and just visiting all of those things that we needed to do" (NSW18)*

The Phase One document analysis reviewed the availability of CRANA short courses. The researcher purported that there were limited offerings in rural and remote areas with the majority of courses being run in the major cities. Most nurses praised the CRANA courses, however also noted issues with location, availability and content as depicted in the following excerpts:

> *"Pre-hospital trauma and life support courses are a great introductory course to the hospital-based ambulances, there is no doubt about that" (QLD10)*

> *"The CRANA courses that I have done teach you how to get someone out of a car with six people, well it's just not going to happen" (QLD62)*

In addition to the courses identified above, participants also discussed the role of the Nurse Practitioner in meeting the needs for extended skills. Participants acknowledged that one of the ways in which nurses maintain practice within their scope is by undertaking further training to become endorsed as a Nurse Practitioner.

> *"If you are going to step out of your boundaries then you're in a dangerous position, so why not go on to be the NP and be in your boundaries" (NSW18)*

The one NP that was interviewed in Phase Three shared how she felt prepared for this higher-level practice, developed more confidence as a practitioner and as such justified her completing this degree. She stated that whilst she would undertake these roles and she had the skills as a RN, as a NP she had greater confidence in her competency and decision making. As she said:

> *"I do feel prepared, it sort of just consolidated the knowledge that you know you have but I think it's more that self-doubt, I think that if I hadn't done the course, obviously I wouldn't be endorsed and qualified to do be doing what I am doing but it just gives you that comfort to know that ok I'm up to this, I do have the skills to do this and because I have this course now and this extra knowledge and I've got through it and I've got good marks, it means that I'm actually ok doing what you feel confident to do" (NSW30)*

Three further issues came up when discussing NP preparation and these were the cost of training, whether there would be a job as a NP at the end of the course and the context of the course content. Many nurses had looked into undertaking the training, but the course costs were high with no guarantee of a job at the end of it. A few nurses discussed the need for NPs but no plans for implementation of this role were apparent. Others spoke of nurses that had undertaken the training, received the endorsement but with no job to go to on completion; they were struggling to maintain their skills due to not working in the capacity of a NP. This is evident in the following participant excerpts:

"I guess if you look at it, you're looking at a semester about $8,000 and everyone would have to go on the fee for help so therefore what you are receiving each week drops a couple hundred to $500. So yeah it is a big I would think that it would be daunting for people to lose that and at the end of it you're not 100% sure whether you're going to get a position" (NSW18)

"I love Nurse Practitioners and I really think it stinks that you can go and do your Nurse Practitioner's but you can only use it if you are employed as a Nurse Practitioner… that's probably the only reason really why I haven't gone and done [the course] because there wouldn't be a job for me… my counterpart up at LOCATION went and did hers and there's no job for her, they won't employ her as a Nurse Practitioner… you put all that effort into doing that and it's a lot of study… it's not appreciated, it's not recognised, it's not acknowledged… I don't know whether it is a state-wide position… it could be financial who would know" (QLD43)

6.5.1.4 High risk skills

There were some nurses that were undertaking skills for which they had received no training.

"Nurses have a far greater scope of practice without necessarily having any more training" (QLD40)

Two areas in particular were considered as high risk for both the nurse and patient in being inadequately prepared to take on roles and these were midwifery and mental health.

Participants shared concerns over the expectation to work as a midwife as well as a nurse highlighting their perceived danger. As one participant stated:

"What it does [shortage of midwives] is it puts clinicians in the position to manage situations that they're not really qualified to manage… we average three or four births per year… it puts our nurses in a position to manage it, a potentially dangerous situation, which is completely foreign to them. We try to equip them by giving them training but training can only cover so much you know. When you think

a midwife does 18 months to 2yrs training and these guys get a 1-day course on a normal delivery!" (QLD43)

NSW participants did not discuss any formal training that they had to complete to prepare them for managing such a situation. One participant said:

"Anyone coming in here looking like they're having a baby, most of the staff run out, I know I'm first to leave. We have this book that tells us what to do and that's as good as it is"" (NSW18)

In QLD, however Phase Two highlighted the one-day maternity course for nurses working in rural and remote areas. One QLD participant said in relation to the shortage of midwives and the course:

"I've done the CRANA maternity emergency course two years ago and that is valid for five years… yet if a lady in labour walked in here now, I'd be the one that would be calling an ambulance for me…just because you've done a two day workshop does not mean that you are ready for this!" (QLD68)

Another participant shared an example of not having received sufficient preparation for the care of an antenatal client:

"Had someone who had delivered and she was sent back to FACILITY… 'is there anything, I'm not a midwife, I've never done, is there anything that I need to know?', 'oh no, no, no, you just don't need to worry about anything' and then the next morning she was handing over to someone else and they were like 'what's the height of the fundus and this, and what colour's the discharge?' and she's like, 'nobody told me to look at anything like that! So, you know, I looked in on her, I'm sure I would be able to tell if she was bleeding but no one really told me to look for anything else'" (QLD62)

Likewise, participants were struggling with the increasing demands of managing patients presenting with mental health disorders, with inadequate resources and preparation. Two participants said:

> *"No mental health support and she's been working outside of her scope of practice because she doesn't know who to ask… it is quite unsafe for the nurses" (QLD46)*

> *"Mental health is such, is a growing area … you do a unit of it in your bachelor's degree but … I don't think it is adequate in terms of covering and assisting someone with their mental health and assessing them, and it's so important, people come in scheduled with the police and you're deciding whether or not to uphold their schedule which goes on their permanent record for being involuntarily admitted to a mental health facility" (NSW72)*

In preparing to be at work, one participant noted the stress she was evidently under:

> *"I always feel as though I need to prepare to be at work… what can I possibly face… it really pushes the bounds of what you are comfortable with … you just have to make yourself do things sometimes that you don't necessarily want to, and not if it's going to be unsafe but you just have to learn to get all the tools you possibly can at your fingertips… but you have to do it in the next hour… you get put in that situation A LOT more in a rural setting where you're just having to make yourself just go for it as long as you know you're being safe" (QLD45)*

6.5.1.5 Lost and found skills

The ability to maintain specialist skills was highlighted as one of the biggest challenges to working in rural and remote environments due to the inability to regularly use them. Nurses are required to use skills that they have not used for a long time, resulting in decreased confidence and their concern over their ongoing competence. As these participants stated:

> *"I try to keep my knowledge base strong but physically it's not tested" (NSW17)*

"It can be 12 months before you do something again … you've got to maintain your confidence, you've got to maintain your knowledge and where possible practice your skill… some staff [need] to reskill back up" (NSW18)

"I've been told three times in 12 months how to do a bone injection gun for getting IV access on someone that you can't get a cannula in and I will tell you now that I can't imagine there will be a scenario in which I will reach for a bone injection gun… I would not be confident to do that at all, having done it on a dummy five months ago … certain things that I've only done once or twice I think I would be reluctant to do it again without support" (QLD62)

The researcher explored with participants what they do when faced with a skill that they were not confident in undertaking. All participants said that they would undertake the skill and would draw on a variety of resources to support them. As these participants said:

"I guess you Google it and you watch a YouTube video and then go from there and then it's all about if you're going to have a go anyway try and look confident whilst you're doing it so that you are not undercutting the confidence of that patient that you are delivering that care to" (NSW72)

"I think the important thing is that you've got to maintain your confidence, you've got to maintain your knowledge and where possible practice your skill… some staff jump straight in and off they go again where I've got some staff that I've got to reskill back up" (NSW18)

Knowing the importance of maintaining their skills, nurses were opting to undertake training outside of their organisation and self-fund.

Not all participants agreed with the issues of skill maintenance. One participant, a nurse with managerial responsibilities believed that competence is achieved at the point of training. This statement, however, goes against the NMBA's views on competency. The participant stated:

"once you've done it once then as far as I'm concerned you are competent… I think with nursing we have gone a bit crazy with competency, having to have a little bit of paper for every skill that we do" (QLD43)

6.5.2 Theme Two: Being held accountable: A three-pronged approach

Findings concerning accountability featured heavily through all three phases of data with four sub-themes arising.

Sub-themes:

- Accountability of individuals
- Accountability for others
- Accountability of organisations
- Accountability to community

6.5.2.1 Accountability of individuals

The level of accountability nurses felt was vast. Despite this, nurses were often pushing boundaries regarding scope of practice to address expectations held by themselves, communities and the organisation. The following participants stated:

"Think in the back of the mind of the nurse is that they always know that they're pushing that boundary and that really concerns them, they worry that if something happens and there's a mistake or that they will be held accountable … and [yet they] still stretch the boundary" (NSW30)

"The only person providing healthcare, or a small team… and the responsibility of getting it wrong… getting more and more nervous that the patient is going to deteriorate in front of you" (NSW72)

There was a clear indication that roles and responsibilities have increased over time, but this increase tends to occur earlier in a nurse's career working in rural and remote settings compared to larger centres. This is discussed in section 6.5.3. In addition, there was a general

feeling that responsibilities had increased in conjunction with an increased workload as stated by one participant:

> *"Responsibilities have increased… we are expected to hold people back here … whereas before if somebody needed IV antibiotics for instance they were definitely medivac, we didn't keep people here who needed 24hr, who needed anything that was outside the 8hr time bracket that we were rostered to be on, even though everybody knows we do 24hrs, we don't plan to do anything outside of the work hours but now that's changed … too much work for one nurse here in this community, but the numbers don't add up… they [management] go on population size" (QLD36)*

Participants in Phase Three spoke of their temptation to step outside the scope of practice, but the action to go beyond was determined by the individual's personality, ethics and integrity. As the following excerpts state:

> *"Boundaries are constantly pushed and it depends very much on the nurses personality … there are so many conflicting things; the nurse's personality, what their own personal integrity is, because when you are on your own it really relies on you to have that high level of ethics and morals and integrity to not do the things that you shouldn't be doing and to be doing the things that you should be doing" (QLD40)*

> *"There's a lot of grey areas that it's ok for us in the rural [environment] to take on, but there are definitely some that we shouldn't even if they're tempting … it's very tempting but you have to stop yourself" (NSW60)*

The following participant noted the change in regulations now depicting a clearer scope of practice for nurses. Whilst the nurse acknowledges these changes at a national level through the professional regulatory guidelines, at a State and local level there remains confusion as to when nurses should be seeking further help from medical staff. Situations such as these can

only heighten the pressure for nurses to succumb to the temptation to work outside of their scope. As the participant said:

> *"They describe it almost as if they were unlimited in what they could do [in 1970s/80s], there was no… real scope of practice for them… it's become more regulated and nurses have a clearer scope of practice that they work within… nurses see [patients] and then decide whether they are going to call the doctor or wake the doctor up and there is still discussion around whether we should do that or whether we should always call the doctor and then when we say 'well you know what do we need to call the doctor about?' there is no sure certain you know what we would do" (QLD40)*

When discussing the need to work outside of scope, participants often referred to emergency situations; stating that if they didn't work outside of their scope then potentially the patient's life would be at risk. Whilst this situation can indeed occur, many of the participants did not refer to emergency situations in isolation but discussed day to day activities being undertaken out of scope as well. It appeared that some nurses were using the emergency situations as a justification for their actions, as evidenced in the excerpt below:

> *"They do, they have to [exceed their scope of practice]… their own morals… the sheer fact is that they are it and someone's life may depend on that and especially in emergency situations" (NSW02)*

There was an overwhelming sense of frustration amongst participants. Frustration that they knew exactly what they needed to do for patients but were unable to do this due to constraints on their scope of practice. As the following participants stated:

> *"People exceed their scope of practice a lot, nurses are frustrated as they know what to do but do not have the permission to do it" (NSW18)*

"We can't say [to the patient] that it's outside our scope [and] we can't treat them, we can't help them" (NSW20)

This frustration and sense of helplessness was seen to push nurses to undertake tasks that they know do not sit within their scope of practice, due to their inherent nature to care and provide for patients.

Expectations came up frequently within this study and in relation to research question two there was a clear conflict between being defined by scope yet being expected to do more and more. The issue of self-expectation is evident with nurses feeling an overwhelming sense of responsibility for patients in their care.

In addition to self-expectation the perceived managerial expectation was also frequently noted. Whilst acknowledging these expectations that nurses work over and above scope, experience also plays a role in how this is translated into practice. The participant below notes that it is often the junior staff that come to these areas with the self-expectation that they undertake all tasks required of them. Junior nurses are observing experienced practitioners working outside of scope and striving to replicate this practice. There is, however, an important issue of accountability. Regulations presented in the Phase One documents clearly state that there is an expectation that nurses do indeed say when they don't know something and not carry on regardless. The following excerpt surmises:

"I think there is a managerial expectation, in a funny way I find some of the junior staff almost take that expectation more on themselves… some of them are very like 'yeah, we can do this and this and this'… I'm quite happy to say I'm not very comfortable … but I kind of feel that the junior staff are coming out and they have to say that they are confident, and they have to say they are comfortable" (QLD62)

There were a number of participants that believed, or that expressed the views of others that were somewhat lackadaisical regarding working outside of scope with insufficient consideration of their accountability. As depicted in the following excerpts:

> *"Scope of practice is what we make it, I believe we can do anything as a nurse or midwife, and we do it. At times people work outside of their scope of practice because they have to" (NSW02)*

> *"We know what's best for our patient so don't tell us what to do, we know what's best, we are the only ones here, we do what's best for our patient at the time – Name me nurses that have been sued in the bush', that's what they'll say" (QLD70)*

> *"If you can't get hold of a doctor or you can't get the orders, whatever the case may be, we'll just go ahead and do it… we do what we have to do, and it shouldn't be a drama" (QLD03)*

One of the challenges noted in both Phase Two and Three by some participants was that there was no medico-legal framework for rural and remote nurses' scope of practice. This is reinforced in the previous excerpt from QLD70 whose colleague implies that there is no possibility of a bush nurse being sued. Other nurses, as presented earlier, noted the increased regulations to nurses' roles. This lackadaisical view towards any boundaries to practice, raised concerns amongst many participants regarding safe practice. The following two excerpts both imply that nurses do not understand their scope of practice or work under the bravado that because they are working rural and remote that this scope does not apply to them:

> *"If they do not understand their scope of practice, they will try anything. I've seen nurses out there who stitched up, put clips in people's wounds, stitched up knuckles on fingers and things and the patient has ended up with massive sepsis" (QLD70)*

> *"There are times… she borders on being dangerous… we can do that, we can do anything, and you know just being so ignorant to the fact of her scope" (QLD03)*

Whilst it is evident that there are a body of nurses working in rural and remote areas with this carefree approach to their level of accountability and practice, this was by no-means across the board. There were far more nurses who held the concerns presented earlier in this section and were keen to share ways in which they ensured that they remained within their scope of practice despite such challenges. These were presented in section 6.4.2.

Both Phase One and Two findings indicated that when working in rural and remote areas a conflict may arise between a nurse's personal and professional boundaries. This was echoed throughout Phase Three demonstrating conflict between what should happen and what does happen, not necessarily through any fault of the nurse. As the following participants expressed:

> *"Everyone knows your business, like we're always taught in training that you don't disclose personal information but in a small town that's really hard when they know who you're married to and things like that, it's knowing what you can tell people and what you can't, what's not appropriate" (NSW20)*

> *"When you are part of the community all your relatives are part of the community… Extremely difficult because most of the people that come in you've known since forever or they're related… their expectations on you as well [as what] they may ask you to do… and expect that to happen" (NSW18)*

The difficulties of maintaining personal and professional boundaries by the nurse has been well documented within the literature. This challenge is further compounded by close-knit communities and close proximity of patients seeing the nurse outside of a healthcare facility. The following excerpt provides two perspectives of the same issue:

> *"People will do a drive by of my home to see if I'm out in the garden to see if they can stop and ask me a quick question or they've actually rung my home number because they've been able to look it up in the local book… So that's very difficult, there is no getting away from it, you know you go out for a meal on a Friday night and that person's, you know that… lady, who's got two daughters, they're out having*

a couple of drinks and they see you and their having flashbacks of what's happened that day so they're trying to go out socially for their own sanity and then they bump into the… nurse so it just brings it all home to them again" (QLD68)

6.5.2.2 Accountability for others

Phase Two and Three data findings indicated that nurses felt accountable for their colleagues. There was a particular perception by these participants that they were accountable for the practice of doctors. As stated by NSW18:

"I think we've become more accountable, and not only for our own practice but for everyone… accountable for the practices of doctors so if the doctor is not getting it right that seems to reflect back on the nurse. So, it's like you're accountable for everyone and making sure um everybody does their job" (NSW18)

The relationship that nurses had with medical staff directly influenced whether nurses worked within or outside of their scope of practice. The following two excerpts demonstrate the trust that doctors have in the nurse to agree for them to undertake whatever needs to be done with the assurance that they will support these interventions when they are back onsite later. As depicted in the following two excerpts:

"I went totally outside my bounds, but I had done basically what I knew had to be done before I talked to the doctor… he [the doctor] will sign it off, but then I had a working relationship with them. I most probably wouldn't have blurred so much if I didn't know that I had a working relationship with these people" (QLD37)

"The more experienced nurses would [do more] and the doctor signs it later and that's outside of the scope but you've got to, it all depends on your relationship with the doctor as well" (QLD10)

Other participants were more cautious of medical staff's assurances that they would support them in their decisions. NSW30 said:

> *"Doctors are all friendly whilst everything is going well but as soon as something goes wrong, they will drop you. If it came to the crunch, I doubt that they would really stick up for you, if you're working outside your scope you haven't a leg to stand on" (NSW30)*

A further area in which participants' feelings of accountability for others emerged was that of AHW colleagues. Phase Three set out to explore the use of AHW's as possibly addressing the cultural needs of nurses. Whilst the findings indicate that this is effective in many ways, there are also challenges associated with the partnership between RNs, the community members and the wider organisation. As stated:

> *"I've been educated along the way by some very good health workers and they share everything with me, and they want me to know as much as I possibly can… They're related to everyone of course and when you when you work in amongst your own crowd, people are very unforgiving if they think you have done something wrong or you have missed something and so the health workers are constantly being approached or judged, at how good they are or aren't, many people come to the health centre and want to go straight to the nurse and the health workers allow it, they even encourage it" (QLD36)*

This nurse discussed how the AHWs did not feel comfortable making treatment decisions and prioritising care in case they made the wrong decision. The pressure on the AHW to remain in good view within their mob is immense, however this culminate pressure (and feelings of accountability for the wellbeing of the AHW) also builds on the RN having to pick up the excess workload.

The excerpt from QLD10 below notes the importance of communication.

> *"We have the Aboriginal Health Clinic and they have some of their own services but the communication between those services and our services are not good so um they are not great communicators" (QLD10)*

6.5.2.3 Accountability of organisations

The organisation and their responsibilities to employees featured recurrently throughout all three phases. This was an area that, despite the findings from Phase One of organisational responsibilities, Phase Two and Three portrayed a very different perceived picture of what was taking place in rural and remote areas, by nurses. There were key areas in which participants reported organisations not fulfilling their accountability to employees. These were: support, preparation for practice and recruitment. Organisations have a direct duty of care and are liable to their employees in ensuring that staff are appropriately trained and supervised and that there are sufficient numbers of staff to ensure patient safety (Cox, 2010). Participants stated:

> *"It was just too much, every day here was like a horrible day and you were not having the support from the people, you know the management, that we needed to be having to make this a sustainable place to work….it just made me not want to be a part of working there anymore" (QLD45)*

> *"It's not always about skill it's actually about time and it's about fatigue management … management are well aware of that, so they do have a fatigue management plan in place … but I don't get to take fatigue leave because there's not the clinical means" (QLD36)*

> *"…the organisation doesn't give a rats bum as long as you can say you can do the work… they'll send junior Registered Nurses out there if they have to and they have done" (QLD70)*

Participants greatly appreciated the cultural knowledge that is required to work in rural and remote communities as one participant stated:

> *"It's not about being clinically safe it's about being culturally safe… it's not just about modifying a practice it's about modifying and adapting a communication strategy… anyone can learn clinical stuff out of the book… but you can't from the cultural perspective. What people say versus what they want I find is different. If I go only*

on their word, I'm risking missing why they're really there… cultural sensitivity, you can't learn it from a textbook" (NSW11)

In preparing for the rural and remote role the issue of cultural readiness to work in these environments was consistently raised. Yet, it was evident that some organisations did not view cultural training as a priority. Two participants said:

"They ended up skipping one of the cultural awareness sessions because we were out of time" (NSW72)

"We did have a cultural awareness day as part of my orientation, when I was orientated six months after I actually started" (QLD62)

Where steps had been taken at a higher level to support culturally appropriate practices, in reality it was not always practiced at the organisational level. The participant continues:

"We had a policy [for Indigenous persons to attend clinics] and I took it to an acting team leader and I said 'look here's the policy and this bit here's in bold' and he said 'oh that'll be a typo', and we, we're not really following it, and I said 'but it's the policy, it's not a draft', you know he said 'oh you know' and he shooed me out the office, and I thought 'ah that attitude'… I think that the cultural guidelines if they exist at all are pretty vague and I, actually privately think a lot of it is trying to do the political thing" (QLD46)

There was great dissatisfaction amongst the majority of participants about the lack of ability and access to appropriate professional development opportunities. As a result, and in knowing the importance of maintaining their skills, nurses were opting to undertake training outside of their organisation and self-fund it, regardless of the proposed educational opportunities stated on commencing employment. As these participants shared:

"I booked my own life support and paid for it myself because it didn't look like it was ever going to get done again and it's the kind of thing that if you do want to look for another job, they do like you to have basic life support" (QLD62)

"I don't think its [CPD] particularly important to her [manager] and in fact we've actually had to take some issues to the union to get people to be able to, and that is an ongoing tension definitely… I'm just astonished how hard it is, even when it doesn't cost the organisation anything, just in principle it's not as important as it needs to be… I can claim some back out of the professional development fund that we get but yes I am going to have to pay for it up front myself" (QLD46)

A key issue inhibiting professional development is lack of staff to back-fill whilst people are away. As one nurse said:

"I had to fight for it and I was originally told that our skill mix wouldn't allow for me to, because I had to take unpaid leave, and I kind of fought it, I went kind of above my boss' head because our skill mix is never good enough, like you know it's been the excuse for four or five years we're short staffed and we're short on senior staff and I don't see why, because our staffing is never going to be fixed, why I should not have the opportunities to develop skills to bring back to my workplace" (NSW72)

Sometimes the only way to access professional development was outside of work time.

"I think the biggest thing that I… have struggled with is trying to find the time to do all the online training cos there's quite a bit. A lot… do it at home because that's the only way that we can get it done… we do what we have to do to get it done" (NSW20)

The concern over a lack of skills amongst nurses and the limited opportunities for professional development led to one participant setting up training courses within her facility. This further evidences the accountability for others that participants felt in this study. As she states:

"A colleague and I have just run a four-hour training course in our own time and people came up in their own time, so we can start going through basic skills in the department that people are missing and lacking and not feeling confident in because that sort of training is not happening, we just don't have the time… we're lucky to get lunch breaks let alone in-services on any given day so, anything over and above,

they expect you, again they expect you to be current but they are not going to go out to supply it you know, you can work in your … own time … they [management] complain that people are not willing to put their spare time into it [training], but people have families, they are paying for houses you know, people don't have time to turn up" (NSW72)

Participants often spoke about CPD being important to their organisation as long as it was mandatory training rather than any other activities. As these participants said:

"The amount of stuff that we do that's on paper that actually has nothing to give you these skills that you need just drives me insane… the amount of stuff you've got to do I mean every shift that you've got a spare ten minutes you get onto… and there's more that you've got to do… They focus on… have you done your annuals? That seems to be the big focus but there's a lot more that I need to do that aren't the annuals" (QLD37)

"We have a message from higher up which says 'these are the mandatory education courses that you need to fulfil, here you go, get them done', without there being any sort of attention paid to the relevance of those specific courses to us and the area that we are working in… like ALS, there needs to be a rural ALS programme that focuses on what you do when there are two of you… I think that there isn't any sort of sense or concern from management that the courses that we are asked to go to… it's not really what I need to be learning to work in a rural environment and I don't think that management care at all, they just want to be able to say 'yes all of my nurses have done these 27 mandatory education courses that you guys are telling me that they have to do'" (QLD45)

These excerpts show not only the predominant focus on the mandatory training but also the concern of how this relates at times to their actual practice. Resentment from participants was obvious as they felt the manager was just ticking boxes whilst they had increased burden to complete the load, resulting in often undertaking this training at home, further compounding a lack of work-life balance.

Despite the general negative consensus around lack of professional development opportunities in rural and remote areas, there was one nurse who acknowledged the increased opportunities. As she said:

> *"Have access to more training and education online and support in this particular rural setting than what they do in metropolitan areas … I have certainly done more study and education out here than I ever did in my years of metropolitan nursing, but I think that you have to want to do it too" (QLD68)*

Despite the wealth of data purporting to a lack of organisational accountability where preparation for practice was concerned, one participant (with management responsibilities) shared how she ensured accountability. She stated:

> *"If I've got a nurse that's coming from another district that has some credentials that we don't necessarily recognise, you know they might have advanced scope in the Northern Territory and QLD nurses have a much higher, much more advanced scope than NSW rural and remote nurses. So, you can be looking at suturing, you can be looking at radiology so we get them to provide that evidence and then we look at it... review the documentation and say listen this person has done training, its recent, they can practice, they can use that scope" (NSW02)*

Appropriate recruitment was commonly discussed. One participant shared her perception of a wider contribution to the cause of retention issues in rural and remote nursing. The participant purported that organisations inaccurately portray vacant positions in the hope of recruiting staff. Organisations have a moral obligation to take responsibility for portraying positions and facilities accurately. QLD68 stated:

> *"Because they are so keen to get people to come out here and be permanent they will tend to promise them everything at interview or, or maybe paint a pretty picture of, the facts are not quite the reality of what things are like out here and then people come out and realise that well, gee I didn't actually know that I would have to share*

a house with five other people and shift work and stuff like that and its very different" (QLD68)

And another:

"I would hope that a remote area nurse, like they don't hire someone unless they're super, super qualified" (QLD45)

6.5.2.4 Accountability to community

The vast differences in communities was evident and there was an overriding sense of accountability on the nurse to understand and integrate within communities to provide successful health care provision. This involves getting to know individual community members.

"Finding a rapport and thinking family always, trying to really engage before you even start … whatever you are going to talk about that day. Building rapport, and you know the same with people from you know a rural property, a farmer out on the land and you're trying to chat with him you know give him dietary advice, you know you've really got to think about the person and their lifestyle as there are a lot of varied lifestyles out there, so each person's culture is very important to giving any accurate advice" (NSW17)

"In a rural community it's all you know cattle or cotton where we are and I think that that for me has been really, like my husband is a cattle farmer we are on a big cattle property and he sort of knows everyone around and so I was lucky enough to be part of that culture anyway…because for a lot of people, a lot of patients that could be a topic of conversation and they'd be like 'you know about cattle' and 'you care about the rain and the weather' and so it sort of allows you to certainly build a rapport with your patients when they know you're… here to stay and you're invested in the community" (QLD45)

Being immersed in the community and understanding the community includes cultural understanding and awareness.

> *"You need to know the cultural aspects of that place, you know in the small communities you are invited in so you have to be approved to enter the community and so it's really important not to do something that they find offensive … you probably aren't even aware of" (NSW72)*

Gaining this cultural awareness came easier to some participants than others. One participant was very aware of the cultural boundaries within her role:

> *"I wouldn't even attempt to run a clinic without an appropriate cultural person with me, so it's not just about plucking a brown face out of somewhere, they have to be you know, an acceptable mob and all that… I actually don't think it's ok to even try to do that without, I think you've just got to say well you know I can maybe come and sit at the community clinic and yarn to people who might come in but I'm not going to be able to do a proper… clinic" (QLD46)*

Whilst others noted the difficulties experienced in providing culturally-appropriate care:

> *"We've got a lot better, but we just don't have the bodies on the ground to provide what we now acknowledge should be provided… I think we've worked out there is a problem, but we haven't come to the fix it stage" (QLD62)*

Nurses admit to holding back and not being as therapeutically involved due to fear of causing offence. This clearly demonstrates the gap between recognising a need and not having the appropriate preparation in place to guide nurses in such situations. The nurse states:

> *"Being a little bit fearful in not wanting to offend anyone, be they Muslim or be they Aboriginal… holding back and maybe being a bit distant and not being as therapeutically involved as I could be for fear of insult or fear of offence" (NSW17)*

Cultural challenges are heightened for those nurses entering communities as relievers during absences of permanent staff. There was a general opinion that relievers are treated badly amongst the community with many relievers having to work in a community three or four times

before community members would open up and come to the nurse with their health issues. As was stated:

> *"The ones living there and make friends with everyone in the community and become part of that community get a lot more respect than the ones that come in and out, the ones that come in and out can mostly be treated so appallingly" (QLD70)*

Participants consistently displayed a sense of accountability to the community despite the many unrealistic expectations set by them. As evidenced in the following two excerpts:

> *"I have had community members asking me to vaccinate their dog or look after a kid lamb that was attacked by a dog and they just wave me down in the street… I'm quite happy for them to do that" (NSW11)*

> *"The community's expectations that I am going to provide… I don't switch off at 5 o'clock basically. I don't sort of hang up the stethoscope and that's it but also my own connection with people … it is a challenge but it is also one that I accept as coming in community, you don't just work remote you live remote and we live in a community where you have got all those connections you know, it's complex but I think that it's also rewarding" (QLD36)*

When asked how she managed this:

> *"I wear my pyjamas to work on a call out… we have to give people a clear message that they woke us up and so we always wear our pyjamas, all of us do, it's just what we do and it's the way in which we say 'you woke me from sleep, try not to do that too often'…" (QLD36)*

However, for many of the participants they felt that they hadn't yet worked out how to manage these expectations and as such it continued to have an impact on their practice. In the main,

participants didn't seem to mind this and saw this as part of the job working within a small community. As the participants noted:

> *"When you become well known in a small community and especially if you've got family links and ties to a community, people know who you are, they know who your parents are, they know where you've come from so you know that phone call on a Saturday morning that you know you shouldn't answer, you shouldn't respond to … you tend to probably do a lot of pro bono tasks that you probably shouldn't do, you know stuff on the side, expectations are a bit harder because you sort of wear that as well" (NSW30)*

> *"the community have difficulty in separating what is work and what is friendship… I have a great deal of difficulty in saying no… if somebody is really sick in the village or we're expecting someone to pass away, I'll gladly attend them even if I'm not on duty" (QLD36)*

Nurses reported an inability to provide services for communities, which they felt accountable for as depicted in the following excerpt:

> *"Big black hole, because you just are not able to offer those services to the patient… you know you want to be able to offer [more] to patients but you can't … there's such a limitation in what you can do… we just don't have time" (QLD40)*

These are further discussed in section 6.5.4.2.

6.5.3 Theme Three: Alone, with or without someone

The third theme emerging from the data of this phase was that of the isolation that comes with working in rural and remote locations. Throughout Phase Three participants spoke of not only the geographical isolation but also isolation from social activities, colleagues and services. These formed the three sub-themes for isolation.

Sub-themes:

- Isolation of self
- Isolation from colleagues
- Isolation from services

6.5.3.1 Isolation of self

Younger nurses commonly noted social isolation in rural and remote areas. Nurses found it challenging when not working to find activities to do and reflected on the number of events that they miss due to their geographical location. As these participants said:

> *"Nurses that we've taken over the years have left because… the social stress, they felt isolated, that they live so far away" (QLD10)*

> *"I guess you know there will be times, you know weddings sometimes you'll miss because there's no way round it, you'll miss you know birthdays, birthdays of important people in your life. I've got a step-son so he started school this year so there's little things like if he gets an award at school, often I can't be there to see it, you'll miss out on weekends, yes just things like that" (QLD26)*

Some organisations do recognise the social isolation and the link to ensuring nurses leave the small communities to ensure they remain content in their post. One facility in NSW assert that they fund a car and accommodation to enable nurses to travel once a month; however other participants from this district did not mention this.

> *"There is social isolation there's no doubt about that… try and get them out of town once a month where we supply them with a car and accommodation… it's about getting out of these small towns, having good internet access. It takes a special person… it's not an easy life… especially a city background, and you're suddenly plonked down in a town that has a service station, a hotel and a shop that gets fresh food once a week, it can be hard. So yeah, it's that shock I think" (NSW02)*

6.5.3.2 Isolation from colleagues

There was a sense of isolation from colleagues, both nursing and other health care professionals. This isolation not only influenced their own roles and responsibilities but also their ongoing support to fulfil their role.

> *"Whilst I have a flat to myself, I live next door to the other nurse, so at what point do we become colleagues wearing the uniform versus neighbours when one of us is on-call the alternate weekend to the other…. Where is the boundary, what do we talk about if we feel that closely connected?" (NSW11)*

> *"I guess… that person there to bounce off… being just the only RN on, you're very much isolated that way" (NSW18)*

> *"When you work in isolation, you don't… other colleagues that you could actually bounce things off" (NSW30)*

At times, even when colleagues were available for support it was difficult for nurses to access them, leaving them managing patients in isolation. As depicted in the following excerpts:

> *"I rang the doctor and he refused to come in, he wouldn't come in and review and you know I gave him everything that I was worried about and basically I had no support, he wouldn't come in, I had no other option so I had to look at how can I make this woman as safe as I possibly can… I think that I was forced to do things that I probably wouldn't have done without a doctor's consent… I had to kind of adapt to go 'ok I have to do this… without a doctors support'… I would have loved the doctor to have come in and review her and guide me through those steps but I guess I was forced to step up… in the end I managed to get a second doctor, I ended up ringing and I got abused for it but I just basically said to him, 'look I've really had to step outside of what I would normally do because I've had no doctor support'… I was uncomfortable with going beyond what I should have done" (NSW20)*

"Doctors we have went 'oh I don't know why these people don't present to the surgery in appropriate hours'… we've got a GP essentially, you know telling people that are having mood disturbances to go home and come back to the surgery tomorrow… I don't know a lot about mental health, but I do know not to tell people to just 'suck it up and go home'; it's a starting point! Um but I don't think our GPs are particularly up with mental health, it's not the specialty they wanted to go into, that's fine, but they've got to be a little bit better than they are I think" (QLD62)

Participants reported decreasing opportunities to network with others, which in turn reduced their sense of gaining support. Nurses that were working as sole practitioners or in small teams in particular spoke of the need to network with others. In both States, nurses had previously attended face-to-face training for annual mandatory requirements, which has now been replaced with online training. The following participants stated:

"It used to be one day face-to-face every year but now they've changed it to everything online... a lot of what we were doing face-to-face had been put on to the computer so she couldn't see the value of having a day's training when you can sit in front of a computer and write… a lot of us like the face-to-face training because it is a chance to network" (NSW20)

"I need to network, I need to go to these rural seminars, I need to go and be involved in what's happening in rural areas, get involved in the rural and remote networking because that's where you learn and that's where you change your practice from other people that are in a similar situation, there's no point in trying to learn from the people that have only worked in metropolitan areas because they have no concept" (QLD37)

When working and living in isolation, many nurses spoke of the importance of becoming part of the community. The benefits and importance of this to health care delivery were discussed earlier in this chapter, however being so closely embedded within the community can also cause problems for the nurse further exacerbating their feelings of isolation. Integration and acceptance by a community can be jeopardised very quickly, with nurses having to make

difficult choices and decisions. Child protection was one area in which participants spoke of their difficulties in meeting their professional responsibilities but at the same time not wanting to negatively affect their relationships with the community. One participant shared the following example:

> *"Child protection [is] a real problem… if the Department of Child and Community is notified about a child, they know that there are only one or two people in town that can do that so it's either the nurse, the police or the teacher and so, this particular community has literally done terrible things to these nurses, you know ringing them up and leaving "presents" on their door step and stuff like that if they think they've dobbed in one of their community members for child safety… professionally you have to distance yourself but if you want to make headway in that community, change health in that community, change, to get people empowered for people to look after their own health, you've got to be involved, you've got to be sitting around the table having the coffee and the tea and stuff, it's very very hard" (QLD70)*

6.5.3.3 Isolation from services

Earlier in this chapter there was a clear indication that roles and responsibilities have increased overtime with more responsibility being put on nurses earlier in their careers than previously and certainly sooner than would be the case in larger centres. Two participants said:

> *"I have … more responsibility than if I was in a regional area … [I am] the least experienced but I'm actually running the whole section … I've just been given this responsibility because there's no one else available" (NSW17)*

> *"I was shaking in my boots thinking how much damage I could do, but if I didn't do something, I'm going to lose this patient" (QLD37)*

> *"[you] call on every bit of knowledge or skill that you have because they are dependent on you… happens every day in the remote facilities… as a Registered Nurse you are responsible for not only stabilising that patient but… maintaining the*

status quo… get that person out in a reasonable condition … it's a tough gig" (NSW02)

The isolation from tertiary services and the services of other health care professionals had a huge impact on the role of the nurse in rural and remote areas. This, for many participants, influenced their scope of practice as one participant said:

"Your scope of practice is very very broad, um, just out of necessity because there's no one else to do it" (NSW30)

The two excerpts below demonstrate an awareness that the roles of other health professionals do not fit within their scope of practice. However, nurses willingly take on these additional roles, regardless of their awareness of not always providing the best care. The participants said:

"You're not providing the best care you can because it is out of your scope of practice and you therefore want specialist help from another person, however this help is not available, and you are therefore incorporating that role into your role" (NSW72)

"Well in the event of there being no one else there then, yes, its lovely when there's someone else there who can do it for me, but it still needs to be done" (NSW60)

Once again there is a sense of frustration and 'making the best of a bad situation'. One participant shared an example of how she incorporates the role of the physiotherapist into her role via carrying out assessments on patients over telehealth with a physiotherapist observing. It could be argued that this is less problematic than undertaking a role without and in place of the AHP. However, there remains a risk in relation to accuracy with assessments being something that she "is not trained at". As portrayed:

"This is another extension of my role having to do something like physio assessments which I am not trained at" (QLD36)

Mental health was a particular area of concern and frustration for nurses, noting their isolation from sufficient services. As two participants explained:

> *"Mental health is, I find that one of the most frustrating things for rural people, rural communities, someone comes in with chest pain they're at a rural referral hospital within an hour or two, they come in with a mental health issue which is just as serious and they can be sitting with us three days later and because no one will take responsibility in transferring them and it is impossible to get them to where they need to get to, to get the care that they need. And that is the biggest bug bear in rural, I think we have got all the physical stuff great but mental health, no way. If I had a person with mental health issues I wouldn't be in the country" (NSW18)*

> *"Our mental health services are Monday to Friday 8-5 like great because that's when people get really drunk is Monday to Friday 8-5, so it's just, you know who comes up with this idea of this is how you staff mental health, not on the weekends when people are really you know doing damage, so yeah that's crazy" (QLD40)*

Nurses discussed how they became adept at modifying and adapting their practice in the absence of services, drawing on other resources in the community for the best outcomes. The following participant said:

> *"We rely on our pastoral community, and on the churches. Often, you'll have a crisis and it'll be out of hours and you think who can I call, and you'll give the local minister a call because at least you know they've got some background in counselling and care" (QLD43)*

Support services were available to nurses in QLD which meant that many of the high-risk situations (6.5.1.4) in which nurses found themselves could be less isolating. It also meant that nurses could remain within their scope of practice (6.5.2). One such support mechanism is that of TEMSU. Working alongside TEMSU has, as one participant described it, meant that locations are no longer isolated. In the case of practice being observed and guided by medically trained personnel and if you are working in a location surrounded by water then you

are able to exceed your scope. In this way, once again, it can be seen that medico-legal frameworks for an extended scope of practice do indeed exist (6.5.2), despite other participants' perceptions that they do not. The following participant expresses the value of support mechanisms such as TEMSU to remain in scope:

> *"Could see what we were doing [via video] and giving directions and guiding us through that [intubation] and so I felt as supported as you possibly could be with this geographical isolation… you know you couldn't do better than that to have a highly skilled doctor watching and listening and providing guidance as you are doing it" (QLD36)*

6.5.4 Theme Four: Spiralling wellbeing

Wellbeing was a major theme throughout Phase Three with findings relating to three sub-themes. Each of these three sub-themes are interwoven, with each affecting the other.

Sub-themes:

- Wellbeing of self
- Wellbeing of others
- Wellbeing of organisations

6.5.4.1 Wellbeing of self

The health and wellbeing of the nurses working in rural and remote areas is heavily compromised due to the conditions under which they work with extremely high numbers of nurses reporting burnout. One participant said:

> *"I was absolutely pushed to my limits working there as a brand new nurse, emotionally and mentally pushed to my limits … if they want to maintain their workforce, they should consider that when they are considering an applicant, like here they've never worked in a rural environment and have been a nurse for one year in total … should we allow them to work in a situation where they are alone at night, where the only two staff onsite are that RN and an EN with one month of*

experience… I was in that situation plenty of times and had scary people walk in, you know scary situations walked in the door… I handled it fine… doesn't mean that that's not an incredible source of anxiety for me … you can't put people in that situation." (QLD45)

All participants that were interviewed reported to the researcher at least once when they had felt overwhelmed and burnt out since working rural and remote. One particular area of the role nurses reported to be affecting their wellbeing was that of their on-call responsibilities as evidenced in the following two participant excerpts:

"[I] can't relax [when on-call] … always waking up and checking is the phone still on? is it plugged in? is it charged? is it right next to me?... And I'll dream that I've been called in" (QLD62)

"Stints of 23 days on and that's straight through on-call 23 days which is just so unsafe it's just ridiculous" (QLD70)

Theme Two: Accountability (section 6.5.2), discussed scope of practice. It was evident throughout the interviews that the majority of participants involved within this study held concerns over working outside of scope, impacting their overall sense of wellbeing. The excerpt below surmises the feelings of many other participants:

"They [the nurse] always know that they're pushing the boundary and that really concerns them, they worry that if something happens and there's a mistake that they will be held accountable and I guess if that's the case they would be as they have broken the rules and I think that weighs really heavily on their minds" (NSW30)

In addressing concerns over wellness all participants perceived a lack of support from management. Management expectations of the role of the rural and remote nurse were described by participants as unrealistic and contributing to an unsustainable way of working. As participants said:

"They [management] will push and push and push you to do as much as you can do until you put your hand up and say 'enough's enough'. I had a complete melt down last year I had to take five weeks off just because my bungy strap was just, was just not going to go any further, and I had to take that time… if I didn't work with such wonderful colleagues… I think my line manager didn't give a rats bum that's for certain, but my colleagues really supported me and that meant everything to me" (QLD70)

"I've been nursing for eight-years and I've burnt out three times in my career… I've learnt to know what I can do and what I can't do but I think that comes with time… I asked to drop hours... I did drop hours, but the expectation was that I would do more than I was contracted to do. So, I was 0.3 at that time which was three days a fortnight and I was basically doing double that" (NSW20)

"We were falling apart at the seams… very stressed out and we had casualties in staff, and they were good people, they were really good" (QLD03)

"I haven't personally found a great way to manage that, especially in an area where you have only got one other staff member with you, you just kind of get through the day, it sucks, it's what makes it an unsustainable way of working, I just feel like you go a bit crazy sometimes… I really don't enjoy it… I just don't ever sleep anymore, and just a regular RN on a rural area I don't think I can do for much longer" (QLD45)

The excerpt from QLD45 above portrays the immense stress that this nurse is under. She is working day to day knowing that it is unsustainable and eventually she will not be able to work in the environment any longer. This participant discussed how she was trying to learn to recognise the burnout that she felt 50% of the time and improve her skills at delegation and prioritisation of care. Other nurses had recognised the importance of self-care and were actively utilising strategies to ensure their wellness.

One manager that was interviewed was aware of staff wellness and shared her solution to addressing this and in turn retaining staff at her facility. The participant chose to undertake all

on-call consultations herself not asking her nurses to do these. Whilst this may well be attractive to the rural and remote nurses who frequently reported the on-call consultation role as one of dissatisfaction, the wellbeing of the manager also needs to be considered. She states:

> *"I'm on clinical call-back 24/7 … I can't pay anyone so I can't expect anyone else to do it if I can't pay them … it's a way I find to keep my RNs here with me … if they don't feel supported then they're going to pack up and leave and I'll be in a worse situation" (NSW18)*

When asked about challenges to working rural and remote, safety was discussed at length and how it impacted on overall wellness. Participants shared narratives of their experiences of different events. The situation described by one participant in the excerpt below is appalling, yet the nurse appears quite complacent about it indicating that sort of thing just happens. It is concerning to the researcher that this appeared to be viewed as an accepted part of the role.

> *"The nurse refused to come out and resuscitate a dog that had been bitten by a snake or something and so the young fellas went absolutely berserk and pulled the security screens off the doors and absolutely trashed the place… lucky there was the local cop in town and he was able to come down and sort it out, you know but that that sort of thing can happen any time" (QLD70)*

Some participants perceived managers didn't understand the conditions in which nurses were working and were not taking active steps to address employees' concerns. As explained:

> *"We address this at every single staff meeting that we have; our personal security, it goes on and on and on. We are told they are doing this, and they are doing that, but it just never happens… it definitely affects the morale of the staff that are there. We have all literally addressed this at every staff meeting for about 12 months now since… just before the time that Gayle Woodford was murdered… we've had a few incidences with staff being assaulted and it's just we're doing this we're doing this but so far to date, nothing, nothing that I know has happened. They put on a security*

service to watch us walk to our cars after a late shift and that [didn't] last… we wanted security within the hospital, so it just affects us because we think you know you guys don't care about us you don't seem to understand… you hope that they are around [the police]" (QLD40)

Some nurses shared examples of where organisations may have taken some steps to address the safety of their workforce but with limited success. Two participants stated:

"We have duress alarms and little pendants that we are supposed to carry around. I don't think they are hooked into the police station, they're hooked into a security company so to call the police you actually have to call the police and that's not manned after hours so it can take 20 minutes, half an hour to get there sometimes… the security company don't even come out" (QLD26)

"After that incident up in the LOCATION where that nurse was raped, our district here did a huge audit on security for all of their facilities… but the further out you go the less linkage you have with that, there's no point in having a video camera when you're 8hrs drive away. So, they tried looking at putting in security screens and that. The nurses out in the bush the ones that I have seen that have just been treated absolutely appallingly they have put their hand up and said 'I don't feel safe, I need to get out of here, you need to help me' and QLD Health haven't done a thing for them until the real pointy end happened and then they've got them out overnight" (QLD70)

Despite the majority of participants sharing their concerns over their personal safety, one participant felt that due to the nature of knowing everyone in the community, it was much safer, as was noted:

"Advantages to living in a rural and remote area is that you know your clientele, so there tends to be less abuse from patients, because they're your neighbour, you know they're going to see you in IGA in ten minutes so you don't particularly want to be rude or aggressive… the reality is that it's a very safe environment, if you go away for three days… you don't need to lock your doors, if you go away you know

that someone, your neighbour will put your sprinklers on or keep an eye out on things or if he sees some dodgy behaviour he'll investigate it for you. It's a safe place to be" (QLD68)

In addition to personal safety, one nurse also spoke of her professional safety being consistently threatened, leading her to resign from her position. As she stated:

"It was just too dangerous… when I did speak to my manager about it one of the comments was 'oh you young ones will never survive in this you know, back in the old days this is just what we did' I just found it was too unsafe and I just felt that I was being put more and more in situations that I wasn't comfortable with… I was just told to deal with it, so I took myself out of that situation to make sure that I was safe" (NSW20)

Nurses are feeling disempowered, being left to manage cases that others can refuse to deal with and ultimately being left with a patient that is not receiving the care that they need. One participant emphasised:

"Stress, it stresses them to the max, and it makes you feel disempowered… you know somehow this person is not suitable for the ambulance because they're too violent, they're not suitable for the police because they're not sedated, yet they are left at your facility where you normally have 2 female nurses on at night and the police and ambos won't take them. And apart from that fact, that person is not getting the care that they need" (NSW18)

The researcher wanted to explore where nurses got their support from in the form of debriefing following incidents that may happen. Some facilities appeared to have no debriefing process in place at all with nurses relying on others such as husbands to speak with. Within these small communities this may raise issues around confidentiality. Other organisations used the debriefing opportunity to look at areas for improvement which is positive. Debriefing used to also occur at face-to-face networking events. There appeared to be two main approaches used, no debriefing or informal debriefing. Two participants said:

"I think it's afterwards I sort of go 'ah crap' and sort of I guess try and process it, there's no debriefing, there's definitely no debriefing… I have a very supportive husband that I can go home to… it's probably afterwards that it goes around in my head a lot and it takes me a while to process it through" (NSW20)

"We debrief amongst ourselves all the time and we're really good at it, and that is important, we have to, if something happens, say we have someone comes into ED and it gets a bit messy for whatever reason, at the station in the afternoon we always say what went good and what went bad, why did it go bad and how can we fix it" (QLD10)

One participant shared insight into recognising the negative effects, discussing certain issues nurses may have when working in such a small team. This reveals the problems with a lack of wider networking and debriefing amongst colleagues and the need for support from others removed from the immediate facility. She said:

"[What] I find is difficult is that you haven't got anyone to vent to apart from your colleagues and I think sometimes it can be quite damaging to vent to your colleagues. When someone has driven you up the wall as a patient, when you vent to your colleagues you are undermining their relationship with the other nurses" (QLD62)

6.5.4.2 Wellbeing of others

Nurses felt responsible for ensuring the health and wellbeing of their colleagues and many stories were shared by participants of concerns they had for others, as evidenced in the following:

"I've probably faced the stuff in my younger years, and nothing really phases me now. It's more making sure the younger ones don't get too overwhelmed and they don't get burnt out" (QLD37)

"I can recognise it now and recognise the symptoms and I can recognise it in other staff and so I definitely jump on them pretty quickly and I guess myself, I recognise when I start to go down that path again and take some time off" (NSW18)

Alongside looking out for the wellbeing of their colleagues, nurses also held concerns over how they were addressing the overall wellbeing of those in the communities in which they worked. Whilst Primary Health Care is a key aspect of the role of rural and remote nurses, many spoke of their inability to deliver such care to their communities. Nurses felt that they were so busy managing the increasing number of patients in the facility, that they were unable to connect within the community and deliver the appropriate health education and health promotion to improve their overall wellbeing. As one participant said:

"So busy putting out treatment fires… doing that day to day stuff… that the stuff that [nurses] could be doing to actually empower the community's health, the primary health care, you know the getting the community to own their own health issues… everybody acknowledges that the drugs and alcohol are a huge problem in that community but that's where it stops… so busy treating everybody and all the chronic disease problems that have come from all the years of really bad health that… nothing['s] happening to raise awareness… to put it squarely back into the hands of the community… it's just putting out fires all the time with health, it's reactive" (QLD70)

As was explained further:

"Health education and promotion is haphazard… no community wide programmes… I would love to be in the schools… talking about dental health, ill health, not being dehydrated, healthy eating… all sorts of stuff… but time doesn't allow it, or I plan it and it has to be cancelled because someone comes in with, I don't know, an ectopic pregnancy" (QLD36)

"We call ourselves a Primary Health Centre but really we, barely do primary health… we are behind in every other screening programme [apart from immunisation]… at times we barely scrape the surface on what really primary health is" (QLD36)

There was a second role that nurses felt that they were unable to fulfil and that was the provision of social support care. In the absence of a social worker these issues were not addressed. The following nurse summarises for many other nurses when she says:

"We [nurses] weren't supporting him as much as we could … he was left by himself. It makes you frustrated … it just comes back to time" (NSW60)

6.5.4.3 Wellbeing of organisation

Phase Three built upon Phase Two responses in portraying a picture of the wellbeing of organisations being in an alarming state. The discussion surrounding organisational culture was vast depicting unhealthy and sometimes unsustainable ways of working. Nurses perceived themselves to be at the forefront of poor organisational culture, in turn affecting their own health and wellbeing and their ability to ensure the health and wellbeing of others. Many nurses were feeling exasperated by some of the organisation's actions, decisions and ability to manage situations.

"Her [the Nurse Manager] communication skills were absolutely appalling… it was very very difficult, we had three resignations in one week… the frustrating thing was that those three people, myself included, had gone to the executive … on a number of occasions… meanwhile we were falling apart at the seams, we were you know very stressed out and we had casualties in staff and they were good people, they were really good… I was broken by the time I resigned" (QLD03)

"She had her battles… with the executive… she went on holiday and didn't return… I do believe that the whole organisational culture played a part in that" (QLD03)

Participants spoke of practice in rural and remote locations as “stagnant” and new ideas or changes to practice based on new evidence as unwelcome. As the following two excerpts state:

> *“Management… culture of the organisation… here we are in 2017 and I’m still dealing with some of the barriers, and just the lack of willingness to say well ok we can look at different views and have a look and see what else is happening out there” (QLD03)*

> *“Sometimes when you are isolated rurally the norm stays the norm for many, many years and no matter if you come along and say well I learnt it this way in uni actually, this is how we do IM now ‘no it isn’t’” (NSW17)*

Recruitment was a strong concern as depicted by the following participant:

> *“Just like everyone else we struggle with recruitment. I’ve had a vacancy now for six months, an RN, and I can’t find anyone to fill it. And my understanding is around the area there’s about 42 vacancies in our sector, so it’s not unusual and I know other hospitals in my area are starting to use agency nurses again, where we hadn’t done that for probably five years. Yeah, we were really quite well staffed but now we’re finding that we’re back on the bandwagon of locum nurses” (NSW18)*

In response to the recruitment and retention issues organisations were upskilling nurses to retain them. Participants felt that such organisational decisions were directly affecting the wellbeing of staff, patients and the organisation negatively. Whilst newer nurses generally felt excited about upskilling, the more experienced nurses reported a pattern of nurses being upskilled which was concerning. Nurses were being promoted to higher positions too soon as a way of retaining them within a facility. This left nurses in these positions unprepared for their role and level of responsibility, having an effect on the whole nursing team. One participant expressed:

"She didn't have the capabilities to take on the role… she was way out of her depth… I don't think she had a great deal of nursing experience under her belt… I've never, never experienced working with a person like this lady" QLD03)

Another stated:

"I am working with a CN who was two years out and her only experience is rural and she does not have the ability to be able to help guide… she just teaches them what she's learnt and doesn't give them the bigger picture because she doesn't have the experience… she's been promoted far too early in her career to be a good resource person… It is to retain them, it's a way of keeping people there. I think it's short-sighted on the part of the DON in many ways" (QLD37)

The excerpt below illustrates the difficulties working in small organisations can have and the additional pressures on managers in dealing with these situations. It is natural for colleagues to become friends when working in such small communities, yet professional issues still need to be addressed. As noted:

"She likes to avoid confrontation if she can and there have been a lot of complaints about the other CN… they do a lot of things socially… girls don't feel they can do too much complaining because of the social interaction between the CN and the DON… it's a very lonely existence if you can't go out anywhere or do anything with any staff members but you've still got to have that line that says yes I'm going to deal with it" (QLD37)

Whilst the aim may be to retain staff, in some cases this may have the opposite effect. Participants spoke of nurses that had worked rural with the intention of gaining experience to enable them to get a post back in the city. As one participant states:

"you might get a more senior position than you could do on the coast so like I've met a few people that have come across here … who have picked up associate nurse manager posts or nurse unit manager posts and they've come on here for a

year or so and they've taken a job back on the coast or somewhere because they've then got that experience" (QLD46)

6.5.5 Theme Five: Daunting impressions

The final theme identified was that of 'impressions'. Throughout the interviews there was consistent discussion of two areas; firstly, the perception of individuals as to what rural and remote nursing is and secondly; the view of metropolitan facilities and workers as to the rural and remote nursing role and context of practice.

Sub-themes:

- Reality versus perceptions
- Metro-centric versus rural and remote

6.5.5.1 Reality versus perceptions

Participants spoke of both their own experiences and those of others with regards to the perceptions of what working in a rural or remote environment would be like. There were two key areas in which perceptions did not match the reality of the role and these were the level of responsibility and the level of support for the nurse.

For individual nurses, often the perception of what life will be like as a rural and remote nurse is very different to the reality. Nurses do not always understand the generalised nature of the role and that they will not only carry out the traditional roles of the RN but will also be required to work as a cook, cleaner, ambulance officer and undertake vehicle maintenance. The increase in responsibilities was highlighted when discussing Theme Two: accountability (section 6.5.2). Whilst one participant in this phase of the study delighted in the opportunity to have more responsibility and work up to senior roles more quickly, the majority of inexperienced participants did not view this in a positive light, noting that they had not expected the level of responsibility they were now experiencing "*they didn't realise that they would get thrown into those scenarios at quite such an inexperienced level"* (QLD37). Nurses did not

realise the lack of resources, the level of work, the amount of responsibility and the unique challenges that working and living in rural and remote environments bring.

Whilst the level of responsibility was daunting, it was the availability of support that made the role difficult or unsustainable for nurses. One participant said:

> *"I didn't understand before I went. I can still remember my first contract [laughs] and I said to the nurse unit manager 'so how many people will I have to have in the hospital and be seen in ED before I can call for help?' and she went 'no you don't call for help, deal with it'" (QLD40)*

Such misperceptions about the role and the reality experienced, lead to a great deal of stress, anxiety, burn out and in some cases resignation from the position. This is evidenced in the following excerpts:

> *"They have great expectations that this is rural, this is going to be so different it's going to be so great but when they get here you know they realise that it's not as easy, they don't have all those things at their fingertips, and I think that's very much what I experienced when I first came, and lasted 15 months" (QLD03)*

> *"People come to a rural setting with a set expectation of what it should be and when it doesn't meet that expectation they go 'no I can't do this' and they go and find somewhere else that's got more support or a bigger centre" (NSW20)*

> *"A lot of staff come and you get excited, you think 'you beauty I've got a couple of RNs' and they start and it's not for them, they really struggle" (NSW18)*

6.5.5.2 Metro-centric versus rural and remote

The indications gleaned in the Phase Two findings suggest that metropolitan nurses did not understand the role of the rural and remote nurse were substantiated in Phase Three. Participants stated that they felt disrespected by their peers in the tertiary centres with a lack of understanding amongst them regarding the role. Participants spoke of low morale in rural and remote nursing as peers in the metropolitan areas didn't understand that the generalised

nature of their role actually meant they had an entirely different scope with many additional skills. Participants often felt that metropolitan nurses perceived them as being less 'able'. Participants stated:

> *"The city areas… don't think they realise the breadth of what we do… that recognition is [not] there" (NSW30)*

> *"going down to a massive tertiary hospital was a huge culture shock… struck me that there is such a lack of understanding at the big tertiary places as to what rural nurses do" (QLD26)*

The differences between metropolitan and rural and remote locations is evident in the excerpt below in which a participant highlights the difficulties that nurses coming from metropolitan areas can have in understanding the community's nuances:

> *"When you get nurses come out from bigger cities they get quite defensive… doesn't do any harm to tell them [the community about yourself], alright I wouldn't tell the psych patient but even so everyone in town knows who the psych patient is so they'll look after you, it's fine, they are nosy, they are as nosy as get out, but I also think you are asking them particularly invasive questions most of the time so you've got to build a little bit of rapport… I get away with a hell of a lot, I don't mean to say bad practice or whatever, but because my family have lived in this district since the year dot, it is an instant rapport with people… They're the kind of people that still have time to stop and talk for an hour a day in the middle of their work day just because they can, and because it's too hot to do anything else at the moment so we'll stop and have a yarn for a while. (QLD62)*

A second area which nurses spoke of was the misperception by metropolitan nurses of the abilities and resources prior to retrieval of patients. The excerpt below portrays the frustration that the participant has when trying to get a retrieval for a patient. Several participants stated that they had been asked to carry out CT scans, for example, prior to retrieval, showing no

comprehension of the environment and subsequent facilities that these nurses were working in. As one participant said:

> *"The other thing they don't understand is that we don't have an intensive care unit and we don't have the equipment that comes with an intensive care unit and we don't have the staffing that comes with an intensive care unit and so these patients that we are asking you to retrieve, you know, we need you to retrieve because we don't have one-on-one staffing, we don't have the equipment, we don't have the staff with the skills and especially with paediatric patients I think that comes to play, you know, we are not paediatric specialists and so when you've got a sick kid can you quickly come and get this child because there are no paediatric nurses here, there are no paediatric specialists here, you need to come and get this kid, you know" (QLD40)*

Likewise, there was minimal comprehension of what it would entail for patients to travel to the city for a routine appointment, in terms of cost and time:

> *"I think many people in the city have got that luxury they don't realise, we find it with the patients, you know they'll say 'just travel to John Hunter to see us', well, John Hunter is still four-hours away from us, and they may turn up for a 15 minute consult but it costs the person probably $500 or more to actually get there and get accommodation" (NSW30)*

6.6 Within case and cross-case analysis

As with Phase Two the Phase Three data also underwent a cross-case and within case analysis. This was to ascertain whether there were any key differences between the two cases (QLD and NSW) and also within each case between different remote area classifications. As with Phase Two, the sample size between the two cases were significantly different with 12 participants from QLD and eight from NSW. Due to the differences in representation across the different RA groups, the researcher was not able to carry out an across-case analysis of

those participants working in RA4 classifications. Only the differences between and within cases will be presented and not the areas of consistency.

6.6.1 Case one (QLD) and Case two (NSW)

The demographics of Phase Three participants are presented in appendix F. Appendix H discusses the differences between the participants in case one (QLD) and case two (NSW).

There were several key differences between the two cases, including:

- Level of support;
- Employment of new graduate nurses;
- Incentive packages;
- Changes to patient acuity at a service level; and
- Support of AHWs

When comparing the data related to roles and responsibilities of nurses between the two cases (QLD and NSW), all nurses reported to be either pushing the boundaries of their scope of practice or to have witnessed nurses doing so. The QLD nurses did appear to have more support structures in place in the form of telehealth, the PCCM and TEMSU. In addition, many of the nurses were RIPRN trained, which enabled them to do a lot more within a planned scope of practice. When analysing the figures depicting the support that NSW nurses have from doctors, the amount of nurses claiming to work beyond their scope of practice because they 'have to' was surprising as the numbers of facilities with medical support was high. On further analysis of the qualitative data there were many excerpts extracted from transcripts that showed the great difficulty nurses had within this case in contacting doctors. Whilst similar experiences were shared amongst the QLD nurses, in general they portrayed good working relationships with the doctors who were supportive of nurses taking actions to treat patients, which they would then follow up on at a later time. This was not throughout all facilities but was more prominent in this case than in case two (NSW). NSW nurses reported far more

frustration than the QLD nurses, stating that they knew what they had to do to treat a patient but were not allowed to do it. Nurses spoke of 'tweaking' guidelines and policies to suit their needs in order that they could provide treatment to patients.

Both cases similarly shared the view that rural and remote areas are not appropriate for inexperienced nurses to work in. It appeared however, that NSW were actively employing more new graduate nurses than QLD to rural and remote areas. QLD nurses by far reported a higher number of nurses which they perceived to be promoted too early on in their careers without the necessary experience to support the role. To gain skills and knowledge, in addition to having experience, participants spoke of their need to undertake professional development activities. Whilst the RANIP package was in place for QLD nurses, many said they found it hard to access due to difficulty in replacing them during their time of absence. NSW participants also noted difficulty in accessing professional development and none of these nurses made any reference to being in receipt of any incentive package to this effect.

The change in acuity of patients reported in the QLD case was not replicated amongst NSW participants. This may have been due to the nature of more representation from community employees in QLD that are seeing these patients not being transferred out to larger facilities or being returned sooner. Both cases highlighted the importance of community and cultural awareness, however only QLD participants acknowledge that they worked alongside Aboriginal Health Workers. On reflection on the community profiles from Phase Two data, it could be seen that the QLD case had much higher Indigenous populations compared to NSW. There were Indigenous communities in NSW but evidently the AHW resource was not available amongst the participants represented in this study.

6.6.2 Case one (QLD) RA3, RA4 and RA5

Findings amongst the three RA classifications in case one were predominantly similar, however, RA5 had some unique findings. A negative organisational culture was portrayed by both RA3 and RA4 participants but was not mentioned amongst those nurses working in RA5.

Many of the nurses interviewed in the RA5 group worked as sole practitioners without other nurses, doctors or managers onsite, which may be reflective of this finding. Whilst there appeared to be fewer issues for these nurses around organisational culture, there were more issues with increased and/or inappropriate community expectations. It is postulated that this was linked to the overreliance on the only health care practitioner in the vicinity and the acknowledgement of the blurring of professional and personal boundaries reported by some participants. Another finding contributing to this situation is the very high reporting of nurses working on-call 24hrs a day, which was not repeatedly reported across RA3 and RA4.

The final finding that stood out as being different was social isolation, particularly experienced amongst the younger RA5 participants. A lack of internet and mobile phone coverage contributed to feelings of social isolation with nurses finding it difficult to maintain a 'normal' social life for someone in their mid-20s. A need was portrayed for nurses to build relationships with those in their community to decrease such feelings of isolation.

6.6.3 Case two (NSW) RA3 and RA5

As with case one (QLD) a within-case analysis was completed to explore whether there were any major differences in the narratives of nurses working across different locations. There was only one nurse working in an area classified as RA4 and this nurse's perception was unique due to her previous experience growing up. In maintaining her anonymity, the researcher decided that her responses would not be included in this within-case analysis. This was due to both her being the only nurse in this category (thus not being in any way representative of a wider population), and not wanting to risk disclosing her identity. As such a comparison of data was carried out between RA3 and RA5 participants only.

There were many more points of discussion amongst the RA3 participants due to the additional number of participants in this category. The most significant difference between these two different RA classifications was associated with the geographical isolation of the RA5 facilities and the subsequent impact on the role of the RN working in these very remote

areas. With less access to other health care professionals and services, nurses reported an increased self-expectation regarding the roles that they carried out. Patients often need to be transferred large distances to receive treatment, such as suturing of a laceration. As patients do not want to travel for treatment, there is an expectation on their part and a self-expectation on the part of the nurse to provide this treatment within the facility. This often means working outside of scope. The second major difference between the two groups was concerning the location of any training, making it extremely difficult and expensive to attend. With the increase in online training, participants noted the need for other opportunities for networking.

6.6.4 Case one (QLD) RA3 and Case two (NSW) RA3

A major difference that was found between the two cases amongst RA3 participants was the beliefs held as to who were the most suitable nurses to work in rural locations. Participants in case two (NSW) acknowledged the transitional stress experienced by both employees coming rural from metropolitan locations as well as new graduates. However, they spoke of the large numbers of new graduates that were employed within NSW Health rural locations and the continuing need to employ these inexperienced nurses to the workforce. Case one participants, however, stated that there was just not enough support during this transition process and therefore newly graduated nurses should not be employed in these areas.

There was a clear distinction in the level of support between the two cases. Case one (QLD) participants spoke of the use of telehealth, TEMSU and many nurses being RIPRN qualified enabling them more autonomy in their role. Case two (NSW) participants spoke of the need to tweak guidelines to suit their purpose and enable them to treat patients when medical support is not immediately available. These discussions interested the researcher, in that QLD apparently had more support in the absence of doctors and still felt that inexperienced nurses shouldn't be working in rural areas whilst NSW participants felt it at times, appropriate to employ inexperienced nurses, despite the need for them to push boundaries to suit their purpose. There was more medical support amongst NSW participants, which may influence these results, as do the geographical distances and the healthcare facilities that RA3

participants were working in. Related to the issue of support, QLD nurses felt the need for the ability to network with colleagues whereas this wasn't expressed by the NSW nurses so frequently.

Both cases highlighted the issues with workforce, recruitment and retention. It was case one participants (QLD), however, who frequently reported inappropriate promotion being used as a retention strategy. NSW participants acknowledged the aging workforce and the issues with change management, reporting a resistance to new practice and new evidence.

6.6.5 Case one (QLD) RA5 and Case two (NSW) RA5

There were many similarities between RA5 participants in the two cases. There were many more different issues bought up by the QLD participants in case one, however due to the number of participants (n=5) as compared to case two (n=2) this would be expected. There were many differences that the RA5 participants spoke of that were the same as the RA3s such as; the support through telehealth, TEMSU and RIPRN endorsement and the inappropriate promotion as a retention strategy amongst case one (QLD) participants. In addition to these points, NSW participants gave many examples of where nurses found it extremely difficult to convince doctors to come and see patients. Thus, whilst on paper these case participants appeared to have medical support available to them, in reality, the working and supportive relationship between the two was not proactive towards health care provision.

Despite RA5 QLD nurses not having the medical staff support there had been a lot of thought into the structure of the facilities and support pathways. Nurses spoke of guidelines that had been established to try and ensure that nurses remained within scope. However, participant excerpts show that this is not always possible.

The community profiles of case one participants highlighted the higher number of Indigenous populations than in case two. Case one (QLD) participants spoke of the availability of Aboriginal Health Workers and how they worked alongside nurses. This partnership was not evident in case two.

The final difference between RA5 participants in QLD and NSW that was seen was the issue of the inability of nurses working in QLD to deliver health education and health promotion to community members. Nurses in case one were passionate about wanting to fulfil what they felt was an essential role component but were not able to do this due to workload and the number of sole practitioners. This was not a reported finding amongst case two (NSW).

6.7 Final research strategies at the end of Phase Three

An additional three research strategies were completed, first triangulation was completed across all data phases to see if all research questions had been answered (refer to the next chapter, Chapter Seven which presents these findings and the subsequent defining of empirical propositions). The second considered rival explanations and the third and final strategy was to evaluate the rigour of the study.

6.7.1 Examining rival explanations

At the end of Phase Two there were two rival explanations put forward which were addressed in Phase Three.

6.7.1.1 Participants definition of 'administration tasks'

This rival explanation proposed:

The required patient documentation to be completed by an RN is considered as 'administration' as opposed to routine administration tasks such as answering the telephone, printing labels and findings notes.

There was some evidence that showed that nurses were undertaking administrative tasks usually undertaken by an administrative employee such as taking inquiries at a reception desk and inputting statistics for financial audits. In general, however, the administration that nurses were claiming to be taking them away from direct patient care related to documentation completion such as care plans and reading policies and guidelines. Whilst there is an

increasing amount of documentation, the actual tasks were patient related and as such, the nurses' dissatisfaction regarding this was an issue that was outside of the scope of this study and it was expected that metropolitan nurses were also experiencing this increase. This rival explanation was therefore accepted.

6.7.1.2 Participants reporting on Continuing Professional Development

The second rival explanation was:

Nurses are not clear on what constitutes continuing professional development and as such are not including completion of mandatory training and/or non-qualification courses when reporting on professional development opportunities.

Many nurses in Phase Two had reported that they had not undertaken any training at all since being in their current position which raised concerns with the researcher regarding currency for practice and regulatory requirements.

During Phase Three the researcher discussed professional development and CPD requirements at length with participants to gain a greater depth of understanding of their experiences. The majority of participants claimed that organisational priorities aligned with mandatory training, before approval was given to other types of professional development. Participants believed they should engage in professional development with preference being given to those courses, which were of short duration, or an accredited course. Very few participants mentioned the relevance of their own reading and reflection undertaken as part of their CPD requirements. However, it appeared that all participants were meeting their mandatory requirements, which contributed or met regulatory requirements. Therefore, this rival explanation was accepted.

There were no further recognisable rival explanations at the end of Phase Three data analysis.

6.7.2 Rigour

The last part of the final research strategy was to test the rigour of the study. The importance of demonstrating rigour was presented in Chapter Three (section 3.6). A combination of Yin's (2014) framework for rigour using his traditional test tactics for ensuring reliability and validity typical of case study research, but the work of Lincoln and Guba's (1985) techniques for establishing trustworthiness was also implemented as the data was qualitative in nature. Each of the actions set out in section 3.6 of Chapter Three had been undertaken. Multiple sources of evidence had been collected over an extended period of time with analysis and conclusions checked at regular stages (construct validity, credibility). A chain of evidence was maintained alongside the researcher's own reflective journal (construct validity, dependability and confirmability). Rival explanations were considered at the end of each phase of data collection and analysis to ensure that the inferences that she had made were correct (internal validity). Yin (2014) purports that the researcher should be open to research questions changing as the study progresses. In this study the questions remained the same, thus the 'how' or 'why' questions remained, and the external validity of this study was maximised (external validity). Finally, this thesis along with the use of a research protocol and maintenance of the case study database has presented a detailed account to enable the reader to replicate the study (reliability, transferability).

6.8 Chapter summary

This chapter has presented an overview of the Phase Three findings related to each research question following the analysis of the interviews. Further thematic analysis was undertaken looking at all data from the 20 participants without relating it to the research questions to see overall themes. This resulted in five major themes. The two rival explanations from Phase Two were addressed through the Phase Three analysis and no further rival explanations were found that were pertinent.

This chapter also presented a cross-case and within case analysis. Major differences between cases and within and between cases of the same RA classification were presented. A comparative analysis was not undertaken between cases for data obtained from RA4 classifications due to only being one NSW participant to four QLD participants.

Chapter Seven follows which will present the advanced data analysis using triangulation and pattern matching across the three phases of data. Findings from this study will be discussed in light of literature from a variety of disciplines and following this the Theory of Cognitive Dissonance will be applied to a selection of the key findings of the study. The concluding chapter, Chapter Eight will present the recommendations for future research.

CHAPTER 7.FROM ANALYSIS TO DISCUSSION

7.1 Introduction

This chapter presents the deeper analysis which starts with converging all phases of the study. Then the chapter explains how pattern matching was used across the whole data set (Yin, 2014). Next a discussion about these findings in relation to previous knowledge is presented. Theoretical propositions established before data collection were compared to empirical propositions drawn following data analysis and conclusions are provided.

Discussion of key findings of the overall research study and how these findings either refute, contribute to existing, or provide a new body of knowledge will be presented. Key findings are discussed in light of literature both within and outside the profession of nursing.

Finally, the Theory of Cognitive Dissonance is applied to the findings for further explanation about rural and remote nursing practice. Cognitive Dissonance Theory with the researcher's lens of social constructivism offers insight into why these nurses practice in this manner.

7.2 Pattern matching

Advanced data analysis included a process of pattern matching (Yin, 2014) Pattern matching was referred to in Chapter Three (section 3.3.5) as one of four analytical techniques proposed by Yin (2014). Yin (2014) describes the use of pattern matching logic as one of the most desirable analytical techniques to increase rigour of a research case study. Using Yin's (2014) pattern matching guidelines empirical propositions were drawn from advanced findings. This was compared to the predicted pattern (theoretical proposition) created before data collection commenced (Trochim, 1989). If the two are comparable then the study is able to demonstrate enhanced internal validity and the subsequently improved rigour of the study overall (Yin, 2014).

Chapter Six presented major themes using sub-themes from the thematic analysis of Phase Three data (see Chapter Six section 6.5). At this point in time the researcher was aware that the themes generated at the end of Phase Three could change in light of converged Phase One and Two findings. However, there were no changes made to themes within this study. All phases were compared to each other. Yin (2014) concludes that when a proposition is supported by two or more phases then it can be accepted.

Figure 7.1 illustrates the process the researcher undertook in applying the analytical technique of pattern matching. Two stages of pattern matching analysis took place. First, data was examined across all phases. Second, empirical patterns from this advanced data analysis were generated and matched to predicted patterns (theoretical propositions) made during the design phase of the study.

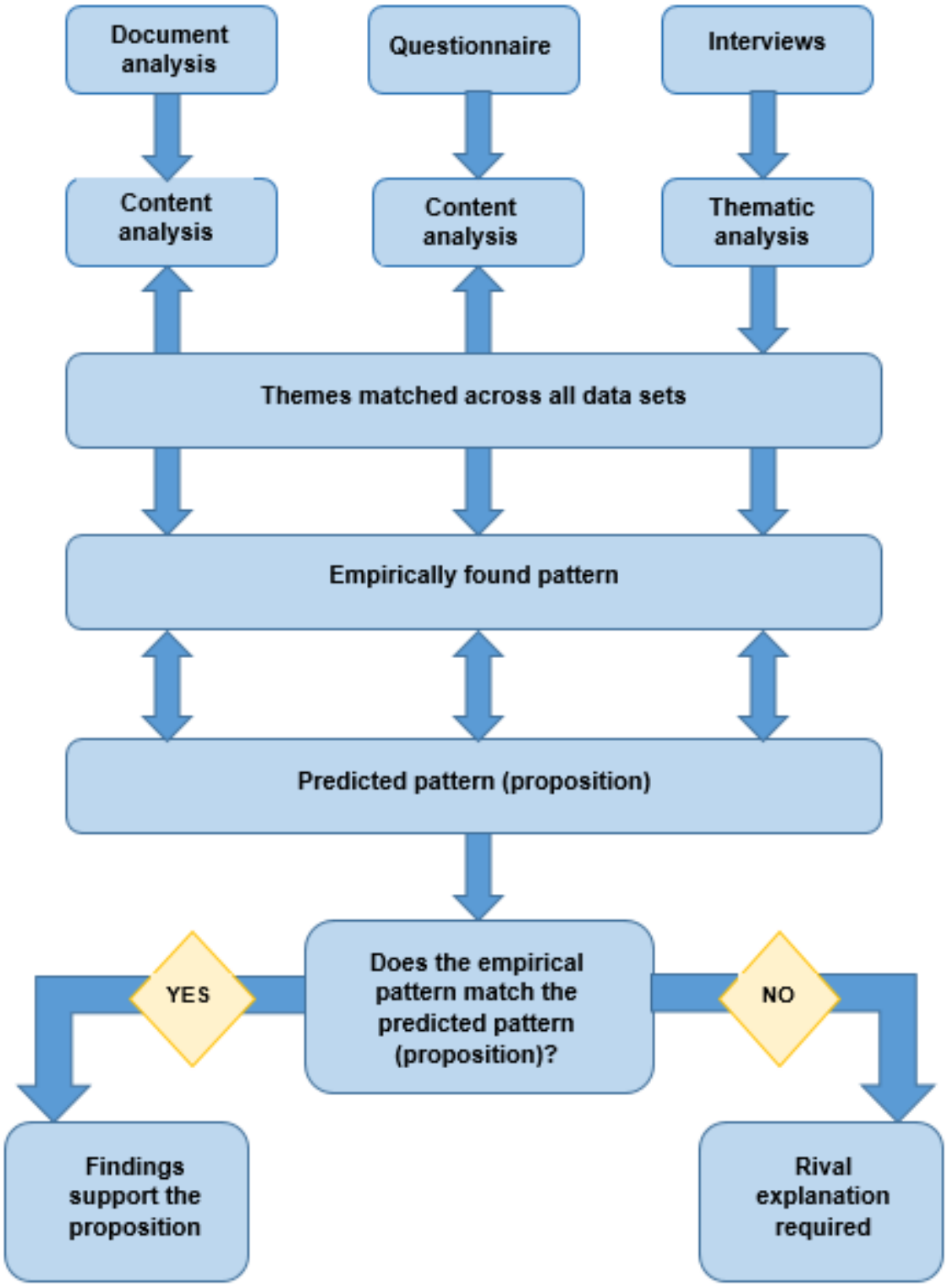


Figure 7.1 Process of advanced data analysis; pattern matching.

Adapted from Almutairi, A.F., Gardner, G.E., & McCarthy, A. (2014).

7.2.1 Advanced analysis and pattern matching of themes

The following sections present findings of pattern matching under each of the study themes. For each theme a table is presented to represent each theme, providing evidence that the findings from Phase One and Two were comparable with findings from Phase Three. Thus, themes and sub-themes were accepted as providing a valid representation of the case. Additionally, any themes that were comparable in more than one phase (e.g. Phases One and Two or Phases Two and Three) were also accepted as valid. In this study, it was found that some findings in Phase One were not found in the other phases. However, when this occurred, a finding in Phase Two was matched in Phase Three. These are significant findings as this means some regulated guidelines or recommendations found in Phase One data were either not applied or only partially applied in practice. The overall themes of the advanced converged data will now be presented.

7.2.1.1 Theme One: A medley of preparation needs for work in the rural and remote area

The first theme was found consistently across Phase Two and Three data. What became apparent during pattern matching was that Phase One data recognised the need for many of the resources that participants in Phases Two and Three raised as necessary but were lacking. Unfortunately, resources were not readily available to staff in preparation and support of their role. Examples included suitable orientation to the clinical environment, continuing professional development, opportunities for skill maintenance and training in specific areas such as the use of telehealth.

Phase One documents recommended orientation programs for nurses as seen in these excerpts:

> *"A comprehensive initial orientation program [is recommended] … for all nurses and midwives working in remote and isolated health" (CRANA framework for advanced practice, Phase One)*

> *"Strong orientation and training and ongoing mentoring and support" (National strategic framework for rural and remote health, Phase One)*

And in particular areas such as telehealth, additional orientation was advocated:

> *"Provide education/orientation in Telehealth online video consultation communication skills to health professionals prior to their initial consultation" (Guidelines for telehealth online video consultation, Phase One)*

In reality, however, Phase Two and Three data showed that such preparation was either not sufficiently implemented or not implemented at all. Examples from Phase Two and Three included:

> *"I was given two days orientation… was expected to be the nurse "in charge"… I received… no training [and had no experience]" (QLD22, Phase Two)*

> *"You don't get a proper orientation, there's no identified preceptor… there's no mentor… we don't have an intro package for staff… difficulties getting clinical supervision… professional development entitlement" (QLD 46, Phase Three)*

Other findings, however, were consistent across all three phases of data, including preparing for:

- the unique rural and remote nursing role;
- the context of practice having a crucial impact on roles and responsibilities of the nurse; and
- rural and remote nursing practice including both generalised roles and advanced practice.

Table 7.1 Triangulation of data for theme: Preparation

THEME	SUB-THEME	PHASE I	PHASE II	PHASE III
PREPARATION	Extended skills	More isolated, more generalist Unique role Context RIPRN Extended/advanced skills CRANA standards Postgrad programmes	Generalist Unique role Context RIPRN Extended/advanced role Lifespan Expectations – management Expectations – community Modify/adapt ↓ Health professionals Non-clinical On-calls ↑ SOP	Generalist Unique role Context RIPRN Extended/advanced role Lifespan Expectations – management Expectations – community Modify/adapt ↓ Health professionals Non-Clinical On-calls ↑ SOP ↑ Acuity Decision making Relationships with Doctors Concern

				Frustration ↓ Support Strategies to remain in SOP ↑ Skills earlier
	High-risk skills	Standard/codes/guidelines - NMBA Decision making - NMBA	Midwifery Mental health Culture Expectations – community Modify/adapt ↑ SOP No legal framework ↓ Staff Safety Resources Context of CPD Credentialing ↓ Policies	Midwifery Mental Health Culture Ambulances ↑ Fatigue Decision making Frustration Relationships with Doctors Accountability ↓ Support Morals/ethics ↓ Health professionals Strategies to remain in SOP Concern Emergency situations

				Credentialing Nurse Practitioner
	Lost and found skills	Technology e.g. telehealth CPD – NMBA Competency CRANA short courses Postgrad courses	Barriers to CPD Self-funding/access to PD RANIP 'Dr Google' ↓ Networking Technology e.g. telehealth Stress Management understanding Skill maintenance	Barriers to CPD Self-funding/access to PD RANIP 'Dr Google' ↓ Networking Technology e.g. telehealth Stress Management understanding Skill maintenance ↓ Support Availability of short courses Culture Context ↑ Acuity
	Transition	Orientation	Experience Culture On-calls	Experience Culture On-calls

			Responsibility ▼ Networking Stress Staffing	Responsibility ▼ Networking Stress New graduates ▼ Support Retention Organisational responsibilities Orientation Metro versus rural and remote Transition into management positions

7.2.1.2 Theme Two: Being held accountable: A three-pronged approach

Accountability was a strong theme across all three phases. Conclusions drawn were, firstly, rural and remote RNs are accountable, and secondly, nurses have an enhanced awareness to being accountable when extending their scope of practice.

Registered Nurses also felt responsible for filling in the gaps of work that other professions/professionals usually provide, including doctors. The following excerpt demonstrates this:

> *"We've become more accountable… not only for our own practice but for everyone… if the doctor is not getting it right that seems to reflect back on the nurse… it's like you're accountable for everyone and making sure everybody does their job" (NSW18, Phase Three).*

There were clear guidelines within Phase One to ensure accountability is maintained as demonstrated in the excerpts below:

> *"Three documents (Code of Ethics and Conduct, Standards for RN Practice), together with other published practice standards … provide a framework for accountable and responsible nursing practice in all clinical, management, education and research areas" (NMBA Code of Ethics, Phase One).*

> *"Nurses who value quality nursing care recognise that they are accountable for the decisions they make …and practise within the boundaries of their professional role" (NMBA Code of Ethics for nurses, NMBA Code of Conduct, Phase One).*

> *"Nurses are personally accountable for the provision of safe and competent nursing care. It is the responsibility of each nurse to maintain the competence necessary for current practice" (NMBA Code of Conduct, Phase One).*

However, Phase Two and Three data demonstrated the difficulties that rural and remote nurses face on a daily basis, due to the context in which they work. Scope of practice is tested

and maintaining appropriate professional boundaries were issues present in the everyday practice of these participants. As participants stated:

> *"Nurses are … required to push their scope of practice to their limits [in the absence of appropriate resources]" (NSW30, Phase Two).*

> *"Boundaries are always pushed… in community environments, you… end up doing things that are pushing the envelope… I've pushed the boundaries for all of these years… nobody knew" (NSW30, Phase Three).*

Additionally, nurses reported unreasonable and unrealistic community expectations often placing nurses in difficult positions in relation to their professional accountability. Nurses were also aware of the pressures that they put on themselves. They had high expectations of what they 'needed' to do to be an effective rural and remote nurse (self-expectations). Therefore, these nurses often worked outside of their accountable scope of practice to meet not only their own self-expectations but also community expectations, maintaining accountability to the communities in which they live and work. The following Phase Three participants said:

> *"Blurred boundaries… not being able to disassociate yourself from the care of your community as a professional" (QLD70, Phase Three).*

> *"A lot of people knew the family and there were a lot of boundaries crossed I suppose" (QLD72, Phase Three).*

> *"Most of the people that come in you've known since forever or they're related… difficult to deal with… their expectations… ask you to do whatever and expect that to happen" (NSW18, Phase Three).*

Organisational accountability was called into question in Phases Two and Three. Once again, Phase One data depicted the responsibilities of organisations in ensuring nurses were able to remain accountable as stated:

> *"The governing body, managers and clinicians share responsibility and are held accountable for patient or client care, minimising risks to consumers, and for*

continuously monitoring and improving the quality of clinical care." (CRANA framework for remote practice, CRANA pathways to remote practice, Phase One)

However, nurses reported in Phase Two and Three that this was often not realised in practice, meaning that nurses every day were questioning their practice and accountability and striving to support colleagues. These participants stated:

"They [the organisation] do expect you to manage beyond what is realistic" (NSW20, Phase Three).

"Nurses have a far greater scope of practice without necessarily having any more training" (QLD40, Phase Three).

"Scope has increased… and the expectations around what we expect of our rural nurses… has increased" (QLD43, Phase Three).

There was a level of guilt and regret expressed by participants that they were unable to meet their responsibilities to communities as was proposed in the idealistic theoretical models presented within the Phase One data. As stated:

"Community expectation or self-expectation, wanting to be able to offer more" (NSW11, Phase Three).

Table 7.2 Triangulation of data for theme: Accountability

THEME	SUB- THEME	PHASE I	PHASE II	PHASE III
ACCOUNTABILITY	Of individuals	Sole practitioner/small teams ↑ SOP Context Culture Safety RN Standards for Practice – NMBA Code of Conduct and Code of Ethics – NMBA NP Standards for Practice – NMBA CRANA Standards for Practice Capability to practice – regulatory RIPRN Policies, procedures and guidelines Use of support mechanisms Professional boundaries – NMBA Decision-making frameworks – NMBA CPD standard – NMBA	Sole practitioner/small teams ↑ SOP Context Culture Safety Lifespan ↑ Responsibilities On-call Ambulances Nurse Practitioner Stress Emergency situations ↓ Support Professional boundaries ↑ Acuity Expectation – community Expectation - self	Sole practitioner/small teams ↑ SOP Context Culture Safety Lifespan ↑ Responsibilities On-call Ambulances Nurse Practitioner Stress Emergency situations ↓ Support Professional boundaries ↑ Acuity Expectation – community Expectation – self

			Care for others ↑ Accountability Exceed SOP ↓ Health practitioners Experience New graduates Midwifery Mental health Relationship with Doctors Lack of resources Lack of legal framework CPD Isolation	Care for others ↑ Accountability Exceed SOP ↓ Health practitioners Experience New graduates Midwifery Mental health Relationship with Doctors Clinical decision making Justification and rationalisation Not fulfilling role(s) Frustration Modify and adapt CPD
	For others	RN Standards for Practice – NMBA Code of Conduct and Code of Ethics – NMBA NP Standards for Practice – NMBA	On-call Supporting colleagues Expectation – self Expectation – community	On-call Supporting colleagues Expectation – self Expectation – community

		CRANA Standards for Practice	Doctors Exceed SOP ▲ SOP	Doctors Exceed SOP Recruitment and retention Aboriginal Health Workers
	Of organisations	Sole practitioner/small teams Use of support mechanisms CRANA standards for practice Decision-making frameworks – NMBA Context Recruitment and retention Advanced nursing practice Capability to practice – regulatory Mandatory training Managers understanding/support Expectations – management Safety Mental health resources Orientation/induction Clinical governance framework	Sole practitioner/small teams Use of support mechanisms Expectation – management Relationship with Doctors Lack of legal framework Recruitment and retention CPD Experience New graduates Managers understanding/support Lack of resources Safety	Sole practitioner/small teams Use of support mechanisms Expectation – management Relationship with Doctors Lack of legal framework Recruitment and retention CPD Experience New graduates Justification and rationalisation Nurse Practitioner

		Policies, procedures and guidelines		
	To community	RN Standards for Practice – NMBA Code of Conduct and Code of Ethics – NMBA NP Standards for Practice – NMBA CRANA Standards for Practice Professional boundaries – NMBA Context Sole practitioner/small teams Culture Expectations – community Safety Use of support mechanisms	Professional boundaries ↑↓ SOP Expectation – community Expectation – self Midwifery Mental health Inability to fulfil roles Exceed SOP ↓ Health practitioners Context Culture Safety	Professional boundaries ↑↓ SOP Expectation – community Expectation – self Midwifery Mental health Inability to fulfil roles Exceed SOP ↓ Health practitioners Context Culture Safety

7.2.1.3 Theme Three: Alone, with or without someone

The theme of isolation (Table 7.3) was central to this study and highlighted the uniqueness of rural and remote nurses' roles due to the context in which they work. This theme related to all of the themes, as isolation affects the roles and responsibilities of nurses. This in turn impacts preparation and ongoing professional development required for practice. Social isolation and subsequent stress impacts negatively on the wellbeing of nurses. The following excerpts portray this:

> *"Remote health practice in Australia is characterised by geographical, professional, and often social isolation of practitioners" (CRANA Pathways to Remote Practice, Phase One).*

> *"Social isolation [is the biggest challenge]. Ability to maintain and enhance clinical skills and knowledge" (NSW02, Phase Two)*

> *"Isolation, financial burden … travelling for education, lack of mentoring/networking opportunities… burn[t] out" (QLD65, Phase Two)*

Isolation also related to resources. Whilst Phase One findings presented the theory of a number of necessary resources to facilitate the nurse's practice in these areas, findings from Phase Two and Three highlighted that these mechanisms were not in place. An interesting finding was about RIPRN endorsement, which was seen by the participants as a necessary resource, the removal of this endorsement and changes to undergraduate nursing curricula to facilitate prescribing by protocol could mean a gap in practice for a short period of time. Participants stated:

> *"Nurses are expected to work autonomously in these areas; the study [RIPRN] to be able to do so is important" (QLD52, Phase Two)*

> *"It's really the RIPRN qualification [that's essential]" (QLD43, Phase Three).*

Table 7.3 Triangulation of data for theme: Isolation

THEME	SUB-THEME	PHASE I	PHASE II	PHASE III
ISOLATION	Of self	Context (unique) Safety Remote Standards for Practice – CRANA National framework for decision making – NMBA Professional boundaries – NMBA Sole workers Collaboration Location Challenge Pathways to remote professional practice – CRANA RANIP Policies and procedures Mentoring, induction, orientation Community Access	Context (unique) Safety Wellbeing (Burn out, Frightened, financial burden, stress) RIPRN On-call Expectation – community Expectation – self Lack of a medico-legal framework Social isolation Limited PD Networking Organisational culture Perception Non-nursing duties Sole Practitioner	Context (unique) Safety Wellbeing (Discomfort, burnout, time off, burden, health, stress) RIPRN On-call Expectation – community Expectation – self Lack of medico-legal framework Social isolation Limited PD Networking Organisational culture Perception Non-nursing duties Sole practitioner ↑ Skills

		Training Clinical support mechanisms	↑ Skills Community Lack of management understanding Administrative load Experience New graduates Preparation Support Colleagues as family	Community (involvement and understanding) Resourceful Modify and adapt Skill maintenance Debriefing Cultural awareness Community acceptance Professional boundaries Relievers
	From colleagues	Context (unique) Technology e.g. telehealth RIPRN ↑ SOP Sole practitioners Human and material resources (Organisational support) Remote Standards for Practice – CRANA National framework for decision making – NMBA	Context (unique) Technology e.g. telehealth RIPRN ↑ SOP Sole practitioner Human and material resources (↓ Organisational support) Wellbeing (frightened, stress) New graduates	Context (unique) Technology e.g. telehealth RIPRN ↑ SOP Sole practitioner Human and material resources (↓ Organisational support, AHWs) Wellbeing (frightened, burden, stress) New graduates

		Collaboration Location Challenge Accountability Pathways to remote professional practice – CRANA	Experience Networking Preparation Non-nursing duties ▲ Skills Supporting colleagues Safety ▲ Responsibilities Community Administrative load	Experience Networking Preparation Non-nursing duties ▲ Skills Supporting colleagues Safety ▲ Responsibilities Community understanding Clinical decision making Inability to fulfil role Burden Safety Modify and adapt Debriefing Autonomy Skill maintenance Cultural awareness ▲ Accountability

	From services	Context (unique) Technology e.g. telehealth Remote standards for practice – CRANA National framework for decision making – NMBA RIPRN Human and material resources (Organisational support) Organisational challenges Location Challenge Roles and responsibilities Clinical support mechanisms National strategic framework for rural and remote health QLD rural and remote mental health plan Pathways to remote professional practice – CRANA	Context (unique) Technology e.g. telehealth Human and material resources (↓ Organisational support, mental health, midwifery, ATOD, AHP's) RIPRN Wellbeing-being (Frightened, stress) Non-nursing duties Expectation – community Expectation – self Preparation Ambulance officers Safety Experience New graduates ↑ Responsibilities ↑ SOP ↑ Accountability ↑Skills	Context (unique) Technology e.g. telehealth (↓ Organisational support, mental health, midwifery, ATOD, AHW's, AHP's) RIPRN Wellbeing (Frightened, stress) Non-nursing duties Expectation – community Expectation – self Preparation Ambulance officers Safety Experience New graduates ↑ Responsibilities ↑ SOP ↑ Accountability Emergency situations Modify and adapt

				Autonomy Community understanding Cultural awareness Expectation – management

7.2.1.4 Theme Four: Spiralling wellbeing

Wellbeing was a strong theme across the data set. The wellbeing of individual nurses was directly affected by the "wellbeing" of the organisation. Many negative organisational traits such as bullying and harassment, stagnation of practice and unrealistic expectations by management were reported throughout Phase Two and Three. Participants stated:

> *"[Negative] organisational culture [is the biggest challenge]" (QLD23, Phase Two).*
>
> *"Workplace bullying and harassment [is my biggest challenge]" (QLD38, Phase Two).*
>
> *"There was terrible bullying and it was never addressed and apparently people come and go and come and go [and nothing is done]" (QLD46, Phase Three).*
>
> *"Resources most definitely… management… the culture of the organisation… still dealing with… barriers… the lack of willingness to say well ok we can look at different views and have a look and see what else is happening out there" (QLD03, Phase Three).*

Working in these conditions directly affects the wellbeing of individuals with reports of stress, frustration, decreased motivation, helplessness and burnout. Additionally, limited support for nurses also contributes to poor health and wellbeing as seen in the following excerpts:

> *"You don't have the support like metropolitan hospitals do… you are far away from specialists, support and advanced care … learnt to adjust and adapt… learning this skill takes time and does not suit everyone, so staffing retention is always a concern" (NSW20, Phase Two)*
>
> *"It's a sink or swim mentality [in the absence of support]" (NSW71, Phase Two)*
>
> *"This [working without a doctor] was terrifying to me" (QLD45, Phase Two).*

Findings across all three phases highlighted the need for collaboration and support amongst nurses. Examples are:

> *"The inclusion of an induction and orientation program for all new staff, including networks, peer support, and mentors" (CRANA Clinical Governance Guide, Phase One).*
>
> *"It is important for reducing social isolation to get to know and build your relationships with local community members and networks" (CRANA Pathways to Remote Practice, Phase One).*
>
> *"Decisions about activities … whenever possible [are made] in collaboration with other members of the multidisciplinary health care team" (NMBA National framework for decision making", Phase One).*
>
> *"Lack of support [is stressful] … much more support [is needed]" (QLD46, Phase Two)*
>
> *"That [working in isolation] is a responsibility that I hadn't expected this early on in my nursing career that can be confronting" (QLD45, Phase Three).*
>
> *"I need to network… to go to these rural seminars… be involved in what's happening in rural areas, get involved in the rural and remote networking… that's where you learn and that's where you change your practice from other people that are in a similar situation" (QLD37, Phase Three)*

Findings from Phase Two and Three revealed little opportunity for nurses to network with others. One reason for this was the change to the way education was being delivered online in place of face-to-face. It was during these face-to-face educational sessions that nurses got the opportunity to meet with likeminded professionals to debrief and collaborate. The ability to network was highlighted as being particularly important for those practitioners working on their own and this particularly affected those nurses in the QLD case.

Removal of the sole practitioner model has been recommended yet it still exists in QLD, raising concerns around safety and burnout (Lenthall et al., 2018). The introduction of fatigue management plans by QLD Health, however, is noted to have improved aspects of the sole practitioner role as demonstrated by the following participant:

> *"[How much you can cope with is] actually about time, and it's about fatigue management… but management are well aware of that, so they do have a fatigue management plan in place" (QLD36, Phase Three).*

In addition to the networking opportunities offered by face-to-face training, participants further discussed how the increase in mandatory training has affected their practice:

> *"We are bombarded with massive amounts of education that are compulsory due to being rural, which can make working in this area extremely stressful" (QLD55, Phase Two).*

> *"There's so many mandatory [training requirements], it's longer than my, I was going to say my arm but now I'm going to say my leg" (QLD36, Phase Three).*

Training was perceived by many to have put additional pressures on nurses to complete many more online learning packages. Many nurses were completing these in their own time due to competing demands during the working day. It can be seen that with the increased pressures on nurses, an organisational culture that may not be healthy and an inability to network, collaborate and receive support from others, there will be a natural decrease in the wellbeing of the individual. This effect on the nurse's wellbeing has the potential to lead to burnout, a very common experience for many participants in this study. The following Phase Two participants stated:

> *"The rural nursing workforce is greatly undervalued and is at risk of burnout if more is not done to support them" (NSW30, Phase Two).*

> *"It is getting to a point where it's not worth the stress to continue" (QLD55, Phase Two).*

Previous research has highlighted increased risk of burnout in nurses working in rural and remote areas (Lenthall et al., 2018; Opie et al., 2010a; Green & Lonne, 2005) and this study has contributed further in highlighting many specific causes of this contemporary burnout.

Table 7.4 Triangulation of data for theme: Wellbeing

THEME	SUB-THEME	PHASE I	PHASE II	PHASE III
WELLBEING	Of self	Context (unique) Sole practitioners Safety Support Collaboration RANIP RN Standards for Practice – NMBA Standards for remote practice: Nursing & Midwifery – CRANA Code of Ethics – NMBA A nurse's guide to professional boundaries – NMBA Digital support National strategic framework for rural and remote health – DoH	Context (unique) Sole practitioners Safety ↓ Support Networking RANIP Change to education delivery Wellbeing (time off, frustration, Stress, ↓ motivation, burn out) Security Expectations – management Expectation – self Expectation - community ↑ Responsibilities On-call Experience Personal and professional boundaries	Context (unique) Sole practitioners Safety ↓ Support Networking RANIP Change to education delivery Wellbeing (time off, frustration, stress, helplessness, guilt, panic, ↑ Fatigue, burn out, unsustainable) Security Expectation – management Expectation – self Expectation - community ↑ Responsibilities On-call Experience

			Medico-legal concerns Mis/perceptions Isolation Inappropriate behaviour (bullying & harassment) ↓ Resources Overtime ▲ SOP Culture ↓ Mental health resources	Personal and professional boundaries Medico-legal concerns Mis/perceptions Isolation Inappropriate behaviour (bullying & harassment, conflict) ↓ Resources Overtime ▲ SOP Culture New graduates Clinical decision making Relievers
	Of others	Collaboration Safety Code of Conduct – NMBA RN Standards for Practice – NMBA A nurse's guide to professional boundaries – NMBA	Colleague support/collaboration Safety Inability to fulfil role(s) Expectation – self Personal and professional boundaries	Colleague support/collaboration Safety Inability to fulfil role(s) Expectation – self Personal and professional boundaries

		Standards for remote practice: Nursing & Midwifery – CRANA Code of Ethics – NMBA Support Digital support National strategic framework for rural and remote health – DoH Context	Wellbeing (burnout, stress) Negative organisational culture Perceptions Expectation – community ↓ Resources Culture	Wellbeing (burnout, guilt) Attitude Negative organisational culture Conflict
	Of organisations	Framework for decision making – NMBA CPD Standard – NMBA Support Digital support Collaboration Safety Context National strategic framework for rural and remote health – DoH National Safety and Quality in Health Service Organisations' (NSQHS) standards A clinical governance guide for remote and isolated health services in Australia – CRANA	Organisational understanding Expectations - management Retention Mis/perceptions Negative organisational culture (Poor leadership) Security ↓ Human and material resources New graduates Aging workforce Inappropriate behaviour (Bullying & harassment, disrespect) ↓ Support	Organisational understanding Expectation – management Retention Mis/perceptions Negative organisational culture (Lack of understanding, unsustainable, inappropriate promotion, stagnation, resistance to change) Security ↓ Human and material resources New graduates Aging workforce

		Workforce Recruitment and retention Sole practitioners		Inappropriate behaviour (conflict, disinterest, unprofessional, bullying and harassment) ▼ Support Recruitment

7.2.1.5 Theme Five: Daunting impressions

The theme ‘impressions’ related to the perceptions that nurses have about rural and remote nurses and their practice. Misperceptions were held firstly by rural and remote nurses themselves prior to working within the context. Such misperceptions can have negative implications for retention as Phase Two and Three findings demonstrated:

> *“People tend to believe they can 'hide' in rural nursing and believe it to be an easy life - without understanding the responsibilities and lack of support around them” (QLD68, Phase Two).*

> *“I think people come to a rural setting with a set expectation of what it should be and when it doesn’t meet that expectation they go ‘no I can’t do this’ and they go and find somewhere else that’s got more support or a bigger centre” (NSW20, Phase Three).*

> *“Some nurses … they have great expectations … it’s going to be so great … they [then] realise that it’s not as easy, they don’t have all those things at their fingertips” (QLD03, Phase Three).*

Secondly, some participants perceived that misperceptions were held by their managers. They perceived that some managers had no understanding of the role and the environment they work in. As one participant stated:

> *“Better fatigue management and understanding from direct line managers [as to what we do is required]” (QLD67, Phase Two).*

Finally, misperceptions were felt to exist by nurses working in larger urban or metropolitan facilities which may affect the provision of safe and continuing care between facilities. These participants stated:

> *“Other Health professionals who work in bigger facilities not understanding the role of rural and remote facilities [is the biggest challenge]” (NSW18, Phase Two).*

“There’s no point in trying to learn from the people that have only worked in metropolitan areas because they have no concept [of rural and remote nursing]” (QLD37, Phase Three).

Table 7.5 Triangulation of data for theme: Impressions

THEME	SUB-THEME	PHASE I	PHASE II	PHASE III
IMPRESSIONS	Reality vs perceptions	Pathways to remote professional practice – CRANA Contextual understanding Context Culture Community Isolation Pathways to Rural and Remote Orientation Training	Workload Level of responsibility SOP Line managers Honesty Reality shock Retention Recruitment	Workload Level of responsibility SOP Line managers Honesty Contextual challenges Stress Anxiety Burn out Resignation/retention Misrepresentation Living conditions Working relationships Community needs Misperceptions Lack of resources

	Metro-centric versus rural and remote	Contextual education	▲ Roles ▲ Responsibilities Non-nursing tasks KPIs Communication Safety Unrealistic expectations ▼ Support Context (unique) ▼ Human and material resources Inequity Networking Unfairness ▲ Pressure On-calls Administrative support Lack of awareness CPD opportunities Relationship with doctors	▲ Roles ▲ Responsibilities Non-nursing tasks KPIs Communication Safety Unrealistic expectations ▼ Support Context (unique) ▼ Human and material resources Inequity Networking Patient transportation Transition Skills set Morale Lack of awareness Nurse practitioners

Tables 7.1 to 7.5 have illustrated the convergence of data findings, supporting the five themes and sub-themes across all phases of data collection and analysis. Each of the five themes have considerable evidence in the data supporting the claim they are major findings. Reviewing the duplication of findings across themes revealed the themes are closely related. The five themes were accepted.

7.2.2 Advanced analysis and pattern matching of predicted and empirical propositions

The second stage of the advanced analysis was to return to the initial theoretical propositions that were formulated during the design stage of the study (see section 3.3.2 of Chapter Three). Throughout the study the theoretical propositions directed the researcher's attention to something that should be examined within the study's scope (Yin, 2009). This study had ten propositions assigned across the five secondary research questions. Each proposition directed the study and guided the discussions that arose from the findings of each phase of data collection and then the convergent analysis.

At the end of Phase Three the researcher concluded that enough data had been obtained throughout the three phases to enable her to generate the empirical propositions. Appendix I presents these empirical propositions alongside each of the theoretical propositions set out at the beginning of the study. Comparison of these propositions are now discussed.

Theoretical proposition: There are a variety of roles and responsibilities held between nurses working in rural and remote areas of Australia.

Empirical proposition: The roles and responsibilities held by rural and remote nurses differ between geographical locations influenced by the degree of remoteness, employing facility and numbers and specialities of staff working at the facility.

Study findings support the theoretical proposition and previous research concluding that a range of roles and responsibilities are held amongst rural and remote nurses. In general, the further remote the nurse is located, the greater the number of skills and more generalisable

those skills need to be. The level of responsibility held by nurses is heavily influenced by the number of team members working at a facility as well as the other human and material resources available to the nurse. The wide range of roles and responsibilities held by nurses are gained soon after the commencement of employment with the organisation, regardless of the nurse's previous experience.

Theoretical proposition: There are some roles and responsibilities of the rural and remote RN that are an extension of their practice and indicate a level of advanced practice.

Empirical proposition: There are a number of clinical skills that rural and remote nurses undertake which are an extension of undergraduate training and indicate a level of advanced practice and advanced level thinking.

Rural and remote nurses use guidelines, protocols and additional training to enable them to carry out clinical assessments and initiate medication management of patients in the absence of medical staff. This is clearly an advanced role with additional responsibilities.

Participants argued advanced level thinking was needed for rural and remote nursing. For advanced level clinical practice, the nurse requires an advanced level of thinking. Advanced level thinking referred to drawing on all previous experiences, joining dots together quickly and considering what is going to be needed before it actually is.

Determining if these findings related to previous research was challenging. Chapter Two highlighted the issues globally in defining what constitutes an advanced level of practice. Within Australia, difficulties often exist in differentiating between what is advanced nursing practice and an advanced practice nurse. Indeed, within the published literature discussing the nursing practice of rural and remote nurses, the terms are used interchangeably. In analysing the data in line with both the definitions given by the NMBA (2013) and the framework for advanced nursing practice by Hamric et al., (2009) the researcher claims that rural and remote nurses are actually not fully working at this advanced level and use of the advanced practice title implies a role that is not an accurate representation.

The NMBA (2013) make it clear within their definition of an advanced practice nurse that the nurse has additional legislative functions and has undergone master's level education. In Australia, the role encompassed within this title is that of Nurse Practitioner. Advanced nursing practice does allow for the RN to work along a continuum and take on additional roles and responsibilities to meet the needs of the context in which they work. However, they also make it clear that within this role nurses also carry out research, education and professional leadership roles. Hamric et al.'s, framework (2009) of advanced practice also supports the NMBA (2013) definition postulating that nurses fulfil several domains, in which research and education feature. None of the participants were involved in research at the time of the study. Some nurses had been told by managers to stop working in education and concentrate on direct patient care. Advanced practice is discussed further in section 7.3.9.

The findings of this study highlighted that participants were not working as advanced practice nurses according to the global definitions which include undertaking research and education. However, the findings do support the claim that rural and remote nurses work at an advanced *clinical* level of practice.

Theoretical proposition: There are a number of organisational concerns regarding the scope of practice of RNs working in rural and remote areas [including patient safety, workforce planning, recruitment and retention].

Empirical propositions: Issues of recruitment and retention are concerning and need to be considered by organisations. Nurses working within organisations have concerns over their scope of practice, workforce issues, recruitment, retention and patient safety.

The theoretical proposition for research question two was accepted in part, with participants claiming organisations were concerned about the lack of recruitment and retention issues. However, nurses did not believe that organisations were concerned about the lack of adequate resources and support. Both lack of resources and support meant that these participants believed they were expected to work beyond their scope of practice. Despite these perceived

pressures, many nurses shared ways in which they were able to remain within their scope of practice and still deliver effective care.

New ways of working within the defined RN scope of practice have been identified through this study. Alongside these, knowledge about new pressures in relation to perceived expectations and where organisational concerns lie have been found. These findings provide new information contributing to the existing body of knowledge. Other findings support previous work regarding working outside of the scope of practice.

Theoretical proposition: There is international variation of advanced level practice and preparation for it.

Empirical proposition: There are variations to definitions of advanced practice globally and nationally. Subsequently, nurses are being prepared in different ways for such roles

The empirical proposition supported the predicted proposition, the theoretical proposition. It is evident both through the review of literature as well as findings from this study that there is international and national variation to the way in which both advanced practice is viewed and how nurses are prepared for such practice. There remains a need for standardisation of nomenclature for advanced practice roles.

Within Australia there is variation in roles and responsibilities and preparation for them between States and Territories. This contributes to difficulties in transferability of skills which in turn have an effect on recruitment and retention of nurses. Rural and remote nurses within this study were passionate about regulation of the rural and remote nursing role and title nationally.

Theoretical proposition: The RN working in rural and remote areas requires advanced-level thinking and practice to fulfil their roles and responsibilities.

Empirical proposition: To meet the demands of working in rural and remote areas with minimal support from medical staff and other professionals, the nurse requires advanced-level thinking to make safe and clinically effective decisions.

The ability to be able to think at an advanced level was referred to previously. Whilst the advanced practice role of rural and remote nurses is prominent in the existing literature, the subject of how nurses gain the ability to think at an advanced level has not been discussed. This study provides new knowledge about advanced level thinking. The theoretical proposition was confirmed.

Theoretical proposition: There is a variation amongst rural and remote RNs as to the amount and level of CPD/preparation for practice in the rural and remote area.

Empirical proposition: Opportunities to prepare for rural and remote roles and undertake CPD are variable and depend on geographical location including the degree of remoteness, the employing facility, line manager's attitude to CPD/preparation, changing delivery of CPD and numbers of staff working at the facility.

The empirical proposition strongly supported the original theoretical proposition. The study findings portrayed a general dissatisfaction as to the accessibility of CPD and/or preparation for practice. Participants reported vast differences in opportunities to access professional development opportunities across their facilities. Geographical location, size of facility and ease of replacing staff members whilst off site all contribute to this variance. This is already known within the literature, so this study reinforces that these problems still remain. A new and significant finding from this study is that in many facilities the way training is delivered is changing. The opportunity to meet with other nurses from rural and remote areas to train and utilise the opportunity to network and debrief, was no longer occurring in many areas, with a push for training to be completed online. This change was reported by participants to have a significant impact on their wellbeing and access to support mechanisms.

Theoretical proposition: There are a number of existing programmes available to prepare the RN for advanced level practice.

Empirical proposition: Access to context-specific programmes for the rural and remote nurse are limited based on the geographical availability of such programmes. Where programmes are available, such as those interstate, they are perceived to be effective in preparing for advanced level practice.

There are few advanced practice Certificates, Diplomas or Master's that have a major in rural and remote or indeed any rural and remote or Indigenous specific units on offer. Thus, the level of maximum benefit of such programmes for rural and remote nursing can be questioned. There are specific qualification programmes available through rural centres such as the School of Rural Health at Mildura affiliated to Monash University and the Flinders University Rural Health School that offer context-specific training, however, for the nurses in this study working and living in NSW and QLD, the opportunities to access these are not so easily available (although the online nature of courses is noted).

The Crana*Plus* courses were highly regarded in the main by participants in this study in helping them develop advanced nursing skills. Participants did report the location of these courses as not ideal with most training being run in regional or major cities making access difficult. In the main, the findings from this proposition contributing to answering research question three (how do RNs prepare for practice in order to fulfil their roles and responsibilities in rural and remote Australia?) support existing knowledge in highlighting the need for context specific knowledge. However, through the analysis of Phase One, new findings did demonstrate that in some instances where programmes had been run in 2016 when Phase One data was first analysed, they were no longer being run in 2018. A key provider for rural and remote education in QLD offered a variety of programmes suitable for rural and remote nurses in 2016 but had withdrawn these by 2018.

Theoretical proposition: Economical influences of the community will determine some of the clinical issues nurses will be exposed to and/or required to manage and treat. Examples may include; agriculture, mining, availability of human and material resources and economic issues such as political elections that may take place during the time of the study.

Empirical proposition: The practice of the RN, clinically and non-clinically is affected by the economical influences of the community.

The clinical practice and subsequent roles and responsibilities of nurses working in rural and remote communities are directly determined by the community in which they work. Findings clearly demonstrated a link between the cultural groups within the community, the community's main source of income, transient populations that travel through, and the subsequent work of the nurse. Not only do these factors influence the practice of the nurse, but they should also be considered in the preparation required for such practice. This area of the research demonstrated the importance of the nurses' understanding of their community and their ability to integrate and be effective in delivering health care.

The community has an effect on the personal and professional lives of nurses working and living there. Community expectations have not been discussed widely in the literature and this study therefore contributes knowledge in this area. The perception by nurses that the community imposes expectations on how they behave and perform weighs heavily on nurses, and can consequently affect their wellbeing. This also relates to professional boundaries, which has already been discussed in the literature, therefore this study supports these previous findings.

Theoretical proposition: Rural and remote nurses can face a number of challenges which can have an effect on their practice.

Empirical proposition: There are a significant number of challenges that nurses working in rural and remote areas face which require them to modify and adapt their practice.

Previous literature has discussed the many challenges that nurses working in rural and remote areas face on a daily basis. This study has reinforced many of these as still existing despite the myriad of recommendations, strategies and policies put in place to support nurses working in these areas. This study however, also demonstrated that nurses in these areas are able to modify and adapt their practice to ensure they remain effective with many stories shared of great resilience. Ways in which nurses modify and adapt their practice have not been presented within the literature previously, making these new contributions. Despite the many challenges faced, the majority of nurses have a passion for the rural and remote landscape and the communities that they serve. It is this motivation that enables them to overcome the challenges that they discussed.

Theoretical proposition: Rural and remote nurses use their networks across locations to gain support and information to provide effective health care.

Empirical proposition: Rural and remote nurses are good at seeking out support to ensure the provision of effective health care. Previous support networks that have been available are being removed making it harder for nurses to find support.

Study findings demonstrated that nurses were well attuned to seeking out information that they required should they need to. This information and support was often not readily available but by modifying and adapting they could usually overcome issues they were facing. Nurses referred to the use of 'Dr Google' when faced with a clinical procedure that they hadn't done for a long period of time. The issue of skill maintenance was one that arose frequently and the use of YouTube to 'watch before doing' was a common occurrence.

As previously highlighted, changes to education and training with an increased online delivery have left nurses feeling more isolated in rural and remote areas. This finding highlights how nurses get their support personally and professionally. Participants spoke of the usefulness of training days which brought a variety of nurses together. This was not only invaluable for training, but it was also during this time that nurses were able to network and debrief, receiving

support and advice from likeminded nurses that understood the context that they were working and living in. These sessions were no longer being funded leaving a gap in the nurses' support systems. This is a significant finding which offers organisations the opportunity to reflect on how they may continue to provide nurses with this support.

7.3 Key findings

In staying true to Yin's (2014) approach, the key findings were compared to what already existed in the literature. This was to ensure that no further evidence had either previously been missed or been published up to the point of writing this thesis. This was particularly important when the researcher was purporting that a finding was contesting previous work. In this case, international literature was also sought to explore new ways of working that could be used as a foundation on which to make recommendations for Australia.

Many of the findings had a number of facets with some areas replicating previous findings, but also adding a new element. Specifically, the key findings of this study fall under four groups; those that replicate previous findings; those that replicate previous findings but provide additional information; findings that contest previous work; and new findings (table 7.6).

Table 7.6 Key study findings

Replicated findings	Replicated findings that contribute further	Findings that contest previous work	New findings
Health promotion forms part of the RNs role. AHWs provide a valuable role to the RN. There is a major shortage of RNs in rural and remote areas. New nurses feel unsupported, out of their depth, struggle with workload demands and RN responsibilities. More graduate programmes are required in rural and remote areas. Social isolation is experienced. Nurses experience a blurring of professional and personal boundaries. Nurses make decisions that are beyond their scope of practice. Nurses and patients experience culture shock.	Community expectations exist. The acuity of patients not being transferred to major cities is increasing. Standardisation of the role and preparation of the AHW is required. Despite recommendations for orientation, induction and supervision these are not being carried out as standard practice. The perceptions held by nurses prior to working in rural and remote areas are misconstrued contributing to transition shock and retention issues. Transition programmes must be developed not only for new graduates but also those nurses transitioning between metropolitan and rural and remote areas. There is insufficient cultural training for rural and remote nurses.	Rural and remote nurses are not working fully as advanced practice nurses or delivering advanced nursing practice as delineated by the NMBA (2013). Focus should be on promoting rural and remote nursing as a specialty based on unique roles and responsibilities and advanced clinical care. Nurses do not agree that they are already doing the job of an NP.	Influence of community, management and self-expectations on practice decisions. Inadequate managerial understanding on the role of the rural and remote RN resulting in poor leadership and support and subsequent low morale. RNs are unable to undertake community health promotion and screening programmes due to competing demands. AHWs are sometimes not willing to undertake certain aspects of the role for fear of being ostracised from their communities. New graduates are not suitable for working in rural and remote areas. Five years of postgraduate experience is required to work in rural and remote areas.

Mental health training is required in a number of areas. There is inconsistency in professional development opportunities. Lack of staff to replace nurses is resulting in nurses being unable to access professional development opportunities. Maintenance of skills is difficult in the rural and remote area. Large occurrences of burnout exist in rural and remote nurses. RNs are leaving rural and remote workplaces to take up posts that are less stressful and provide more support.	Community integration is essential for developing skills in culturally safe care. Nurses have insufficient skills in managing mental health presentations. Nurses have insufficient skills in managing maternity presentations. Nurses are having to self-fund professional development and being encouraged to do so. Not enough courses are being run locally. Courses need to offer context-specific education/training. There is a need for reciprocal programmes between metropolitan and rural and remote facilities to allow exchange of clinical skills. Violence towards nurses continues, they are concerned for their safety and nurses perceive that organisations are reluctant to undertake implementation of safety measures.		Nurses' practice is being affected by a decreased confidence in culturally safe care. There remains a culture of not understanding mental illness which needs to be addressed to ensure RNs provide effective care. Some nurses are managing maternity presentations in the community rather than sending women to larger facilities with the intention of providing culturally safe care. However, they do not possess maternity qualifications. Incentive packages are not always accessible. Mandatory training is increasing and leaving little time for additional professional development needs. Access to nurse educators is rare with nurses seeking support for skills through Google and YouTube. Professional collaboration and networking opportunities are decreasing.

			The opportunity to debrief is infrequent and informal. Perceptions held by metropolitan facilities regarding rural and remote nurses and capabilities of facilities effects the organisational culture and patient care negatively. The RIPRN endorsement is considered essential to the practice of the rural and remote nurse. Removal of this should be replaced with a national context-specific post-registration course. Nurses are not undertaking the NP endorsement as there are no NP jobs on completion. Cognitive Dissonance Theory can provide an understanding of why nurses practice the way that they do.

New findings from the study can be grouped into nine topics:

- Expectations;
- Primary Health Care and Aboriginal Health Workers;
- Culturally safe care;
- Transition to rural and remote nursing;
- Continuing Professional Development (CPD) and skill maintenance;
- Mental health care and maternity;
- Health, wellbeing and burnout;
- Organisation; and
- Advanced practice/NPs.

Each of these will now be discussed in light of the existing literature.

7.3.1 Expectations

A key finding of the overall study was that rural and remote nurses are influenced by the expectations of the community in which they work, managers of the employing organisation as well as nurses' own self-expectations. How expectations influence the decisions that nurses take in carrying out care has not been widely acknowledged in the current literature. Indeed, in a specific search for this finding just two papers were found. The first investigated the dual relationships held by rural mental health clinicians (Endacott et al., 2006). Participants spoke of the community expectations on the clinician to always be available and to meet what they considered were their care needs. In turn this was exacerbated by clinicians' own expectations that they also meet these community expectations. This study did not define the sample size, so it is unknown whether nurses were included under the title of 'mental health clinician' or whether this referred to medical staff and psychologists. A second earlier study by Zeitz et al., (2006) noted the inappropriate community expectations outside of business hours. Rural communities had the expectations that they would have 24-hour access to health care services as they would do if they resided in a metropolitan area.

The findings concerning expectations and the influence they have on the practice of the RN are significant. Chapter One and Two discussed the lack of literature delineating what the actual role of the RN was and tended to focus its attention to CPD opportunities, workforce issues and an extended scope of practice. These findings provide a greater understanding of why CPD opportunities are needed, why the workforce has issues with retention and why nurses are working beyond their scope of practice. The expectations of the community, particularly where the population of the community and the number of nurses is small has a direct impact on the decision-making of nurses regarding their practice. This is exacerbated by their own personal self-expectation that they must meet the community or individual's needs. In addition to the community expectations are management expectations. Participants frequently noted their perceptions of management not having an understanding of the role of the RN in rural and remote areas and the austere conditions in which they work. Subsequently, expectations were unmanageable, unrealistic and unhealthy.

7.3.2 Primary Health Care and Aboriginal Health Workers

The findings of Chapter Four confirmed the expectation that rural and remote facilities are based on the primary health care model of practice. As such, an important element of fulfilling this model of care is the focus on preventative health. There is a wealth of literature available which discusses the role of the rural and remote nurse in contributing to preventative health through the delivery of health promotion activities. Indeed, the successes of many different health promotion projects have been shared throughout the literature. The barriers to health promotion, however, have not been so readily explored. Where barriers have been presented these have related to the education and preparation of nurses to be able to undertake health promotion effectively as well as a lack of monetary and material resources (Dimitropoulos et al., 2018; McFarlane et al., 2018; Roden, Jarvis, Campbell-Crofts & Whitehead, 2016; Al-Motlaq, Mills, Birks &, Francis, 2010). Al-Motlaq et al. (2010) noted that nurses often backed away from health promotion leaving it to others for fear of giving conflicting information, whilst

others spoke of delivering health education at the bedside rather than any larger proactive and preventative programmes.

Participants in this study spoke of their inability to undertake health promotion due to the changing nature of their roles. There was an increasing acuity of patients and number of conditions being managed locally rather than being transferred out. This meant that nurses no longer had the time in their day to undertake these preventative health initiatives. A number of participants spoke of the Aboriginal Health Workers (AHW) that worked alongside them. AHWs are an invaluable commodity to the non-Indigenous nurse, enabling them to have greater cultural awareness, access and support in working with Indigenous populations (Deek et al., 2013; Blinkhorn et al., 2012; Rose & Jackson Pulver, 2004). The importance of the role of the AHW has been documented widely with designated career and training pathways being established to help prepare AHWs for the roles that they carry out (Australian Government, 2013; NSW Ministry of Health, 2012).

Participants from NSW did not report working with AHWs as often as those participants in QLD and this is representative of the geographical locations of participants. Whilst findings from this study agree with the benefits of the role of the AHW presented in other studies, there were also new findings that arose that had not been previously found in the literature. Several of the participants who worked regularly with AHWs discussed the AHWs reluctance to take on two roles in particular; health promotion and triage. Participants reported a reluctance on the part of the AHW to participate in either of these two activities due to fear of making a mistake and being ostracised by their mob. As a result, this meant that there was limited support for the nurse's workload regarding health promotion activities and the number of patients being seen in the clinic. Nurses did, however, say that the AHW role was invaluable in helping them access community members and assisting them to provide culturally safe care. Whilst not supporting the specific findings from this study regarding the reluctance of AHWs to carry out specific tasks, it is interesting to note a study carried out by Smith, Fatima and Knight (2017). This study looked at the provision of culturally appropriate care within

primary health care services for Aboriginal people. Within this study just 40.7% of Aboriginal participants reported being happy with the efforts of AHWs and it can be questioned whether the results from this study are able to provide an explanation for the results of Smith et al.'s (2017) study.

AHPRA now recognises and regulates Aboriginal and Torres Strait Islander Health Practitioners, however, it is only those individuals whose organisation determine that they have to work under that title that need to be registered. Therefore, no standardisation regarding roles encompassed within the title of AHW and preparation for them currently exists. Subsequently the issues described above where AHWs choose not to undertake certain aspects of their role may not be addressed.

7.3.3 Culturally safe care

The findings of lack of confidence that nurses have in providing culturally appropriate care were interesting. Of the 20 nurses that were interviewed 11 expressed that they still had doubts about how culturally appropriate their care was, and three participants stated that they felt they were not fulfilling their roles in providing this care for fear of causing offence to people. The perception of nurses of not fulfilling their roles culturally is a new finding from this study. A paper by Dongfeng (2012) exploring migrants reported that they suffer extreme fatigue due to constantly being 'on guard' to protect themselves against making culturally insensitive mistakes, which appears similar to the descriptions from participants in this study. The most commonly reported group to require culturally appropriate care was Aboriginal and Torres Strait Islander people, but other cultures noted were those of Islamic faith and mixed cultures travelling through areas, particularly during fruit-picking seasons.

The notion of culture shock was first reported in 1960 by Kalervo Oberg when he wrote about the Christian missionaries who travelled abroad. Oberg (1960) describes culture shock as the feelings of frustration, stress, anxiety and discomfort that a person feels when they leave the familiarity of their own cultural and societal norms and enter an unfamiliar environment. There

is little research on the effects of culture shock experienced by nurses within rural and remote areas, however a paper by Muecke, Lenthall and Lindeman (2011) noted that culture shock can affect the retention rates of nurses working in Indigenous communities of Australia.

Oberg (1960) presented his 'stage model' of culture shock in which people are said to progress through four stages. This model can be applied to the findings from this study through some of the participant's responses. The first stage of culture shock is one in which there is fascination and exploration of the new culture. When mistakes are made, they are viewed as minor and a part of the learning journey. Participants within Phase Three of this study noted their fascination and eagerness to find out more about the communities and cultures with which they were working. As culture shock sets in, however, this fascination turns to hostility and frustration and whereas previously errors were considered minor they now become problematic. At this time stress and anxiety levels rise and people begin to yearn for their own home culture. It is at this stage that some participants reported leaving their post to find one more aligned to their own cultural norms. This often meant nurses leaving remote areas to begin work at larger centres with a population closer to their own or with less of a cultural mix. One nurse particularly stands out to the researcher as her narrative reflected this model. She too stated going through the first two stages and then entering the third stage in which she became much more open minded about the culture and what she was able to achieve within her role. Previously she had become frustrated that she couldn't get people to comply with what she was asking them to do; a common experience (Kruske, Kildea & Barclay, 2006). However, upon reflection and through her own personal development she overcame this and felt more at ease about what she could offer and the best way to do this in line with the community's expectations. Two experienced participants could relate to the three previously cited stages but were now completely accustomed to the culture of the population with whom they worked. They were able to work effectively and productively within the community, understanding many of the traditional customs and norms of the culture and knowing where

to seek help and advice should they need it. It was only through experience and hard work, however, that they had managed to accomplish this stage.

A common theme was that nurses could not understand why people were not taking recommended medications, turning up for appointments and presenting in a timely fashion. Not at any time, however, did this group of participants discuss any consideration as to how the service was run and whether it was in fact the service that was not appropriate as opposed to 'difficult behaviour' of the cultural group that was resulting in the poor uptake of the services (Smith et al., 2017). The health inequalities of Australia's Indigenous people are well documented and many government initiatives have been implemented to try and decrease these significant differences in access to health care, mortality and morbidity (Australian Government, 2013). Researchers have argued that, for this to happen, care needs to be culturally sensitive and accessible with Indigenous people individually and collectively participating in decision making with regards to their health and wellbeing (Trueman, 2017; Rutledge et al., 2008).

The importance of culture in nursing practices was evident from the Phase One findings. Phase Two indicated to the researcher that there were possible difficulties around providing culturally safe and appropriate care and in Phase Three this was explored further. Phase Three participants shared concerns over the availability of cultural training with the majority of participants having not completed any such training. In Phase Two when participants were asked to identify what training they had undertaken, none of the 75 participants made reference to cultural training. It can be postulated that this may have been because they had not received any training or perhaps that the level of importance put on this training by respondents was not as high as the clinically-based courses that they had listed. This was explored further during the Phase Three interviews which found that, where cultural training had been completed, it had been a maximum of one day or had been delivered as an online module to be completed. One participant noted that her cultural training as part of her induction

was cancelled due to other sessions running over time, once again a possible indication of the regard to its importance.

The literature supports the need for cultural training (Muecke et al., 2011; Rutledge et al., 2008; Kruske et al., 2006) however, it needs to be more than a superficial approach lasting just one day. Smith et al., (2017) argue that one day is not long enough to achieve anything more than the delivery of theory and cannot achieve any significant influence on a clinician's practice. It has also been noted that many of the educators are not equipped to deliver this cultural training (Kruske et al., 2006). The result is care that is not culturally safe as individuals have not learnt to recognise their own beliefs and biases and addressed these, nor have they had the opportunity to learn about another's culture (Rutledge et al., 2008).

Smith et al.'s (2017) study showed a difference between how primary health care staff viewed how culturally appropriate their service was and how patients viewed the service. Of staff participating in the study 85.7% (n=21) of them rated communication between them and Aboriginal patients as being clear and understandable as compared to 46.3% (n=25) of Aboriginal patients.

The majority of the Australian literature focuses on Indigenous populations and notes the link between a lack of culturally appropriate care and Indigenous people's health outcomes (Muecke, Lenthall & Lindeman, 2006). In considering the culture shock that nurses experience when entering a community so too should it be acknowledged that Indigenous people also experience culture shock when they enter the health care system, which is predominantly medico centric and set within a 'white' culture (Tanner, Agius & Darbyshire, 2005). This culture shock is particularly evident when patients are transferred to metropolitan hospitals where Indigenous people are not in the majority (Tanner et al., 2005). Indigenous people can feel lost, ashamed and disempowered particularly when there are language barriers (Smith et al., 2017; Kruske et al., 2006; Tanner et al., 2005). These feelings often remain until they come into contact with another Indigenous person.

Clinicians need to take a holistic approach to services and include vital spiritual, social, psychological, emotional and cultural factors (Smith et al., 2017; Tanner et al., 2005). The importance of understanding the community in which the nurse works was explored during Phase Three of the study and all of the participants acknowledged that to integrate and get to know the community in which you live and/or work was essential to providing appropriate care. The more experienced nurses expressed how much they had learnt from community members, and how valuable this experience was. This is reinforced within the literature that has focused on non-Aboriginal school teachers working in remote Aboriginal schools. Clarke (2000) discussed the importance of establishing both personal and professional relationships with community members to gain an insight into their culture. Clarke (2000) went on further to advise that the community appreciate the efforts made by staff with Elders being a particularly valuable source to gain understanding of why Aboriginal people may feel a particular way about an intervention. Elders may be able to help nurses strategize ways of encouraging compliance or attendance. These feelings were certainly replicated within this study whereby nurses had made the effort to become part of the community and in turn community members 'looked out' for them or their property.

7.3.4 Transition to rural and remote nursing

Previous published literature has not discussed whether new graduate nurses should work in rural and remote areas. This study demonstrated an overwhelming response from participants that newly graduated nurses should not be employed to work in rural and remote areas. The general view of participants, both inexperienced and experienced nurses, was that two to five years of postgraduate experience in larger centres was required before working in rural or remote nursing. The only participants that disagreed that the rural and remote environment was not suitable for new graduate nurses were those nurses that had a role in the recruitment of nurses.

Rural and remote areas are suffering an extreme shortage of RNs which is predicted to increase over the next ten years (DoH, 2016). In this situation it would seem naïve to limit the

pool of available recruits by assigning a limit on their experience. However, retention of staff is also an inherent problem seen in both this study and previous studies highlighting the retention issues amongst inexperienced nurses. Indeed Bennett, Brown, Barlow and Jones in 2010 noted the attrition rate of new graduates in rural and remote areas as up to 86% in comparison to between 20% and 50% in urban and metropolitan areas. There are two points for discussion in respect of this; firstly, how the transition of new graduates to a position in rural and remote areas is managed and secondly the exposure and experience to rural and remote nursing during their undergraduate nursing programme.

A great deal of research has found that new graduates experience transition shock (Kramer, 1974) when they begin the role of RN. Duchscher (2008) suggested that it takes a nurse up to 18 months to progress from a novice nurse to an advanced beginner. Duchscher's work was carried out in Canada with a sample of participants from two hospitals in major cities, thus it can be purported that in a rural and remote setting with less support and resources this time may be increased. The findings of this study support previous studies concluding that new nurses feel unsupported, out of their depth, struggle with workload demands and the responsibilities that come with the title of RN. The benefits of yearlong graduate programmes have been noted and these are well-established in urban and metropolitan areas, however their implementation in rural and remote areas remains ad-hoc (Ostini & Bonner, 2012; Kelly & Ahern, 2009). In comparison, a minimal number of authors have studied new graduates and their needs during the first 12 months within rural and remote areas specifically (Fowler, Twigg, Jacob & Nattabi, 2018). The work of Lea and Cruikshank (2005, 2007, 2014, 2015, 2017) dominates this space in capturing those additional stressors that the context of rural and remote nursing bring to the graduate year. Replicated too within this study these include but are not confined to; the social contribution to transition with nurses socialising with work colleagues in the absence of other friends and family, difficulties in maintaining professional boundaries when working and living in a small community, coping with limited support and often having to make decisions that are beyond their scope of practice.

Despite the recognition of transition shock and the benefit of graduate transition to practice programmes, during this study it appeared that there were limited opportunities being offered to new graduates to undertake such programmes in NSW and QLD. None of the participants had engaged in a graduate programme so it is not known how successful the programmes are, where they do exist, in alleviating some of the highlighted issues.

Unlike other studies that have focused on the transition of new graduates into the rural and remote area, this study has also found that this transition stress is also experienced by those coming from urban and metropolitan areas. Nurses may have worked for many years in such areas and are seen to be an expert within their speciality, but when put in a rural or remote context they reported to feel like a novice nurse once again. Thus, transition programmes are not only for new graduates, but for all nurses trying to adapt to a new environment or new facility. Phase One documents were shown to delineate the importance of orientation, supervision and support from others in the rural and remote environment, yet in practice the findings from this study and those dating back to 2005 by Lea & Cruickshank do not support that this is indeed the case, leaving nurses struggling to adapt to a unique environment.

Whilst the study was interested in the postgraduate preparation for rural and remote practice, the undergraduate training of nurses was a common point of discussion amongst participants. Participants argued that recruitment, retention and transitional problems could be addressed by having suitable content in the undergraduate curricula. The researcher did not review undergraduate curricula as part of this study so is unable to allude to how appropriate it is in preparing nurses for rural and remote practice.

The exposure to rural and remote clinical placements as part of an undergraduate degree has been shown to have a positive impact on recruitment figures (Bennett, Jones, Brown & Barlow, 2013; Lea et al., 2008; Gum, 2007; Neill & Taylor, 2002). However, it should be noted that whilst recruitment figures in these studies appear encouraging, none of the authors had stated any previous comparative figures and nor has retention been examined. The researcher

believes that exposure to rural and remote nursing as an undergraduate could reduce transition shock, enhance cultural awareness and safety, and increase new graduate retention.

7.3.5 Continuing Professional Development (CPD) and skill maintenance

Key findings from this study regarding continuing professional development opportunities for rural and remote nurses replicated previous findings. It was evident that there was no consistency as to what professional development nurses were exposed to or how often. Nurses are continuing to find it difficult to be released from their posts to attend training. Training opportunities were often a long distance away, resulting in high costs for travel and accommodation. CRANA courses were an example of this issue. These courses were highly regarded amongst participants; however, they were not held frequently in rural and remote locations with nurses travelling to cities such as Cairns or Sydney. Many nurses were having to self-fund any professional development due to not being able to access any funds which made attending training not possible for some participants.

Many of the courses that were offered to rural and remote nurses, such as Advanced Life Support (ALS) did not include a rural and remote context meaning that participants got minimal benefit from the courses. Nurses want courses that are easily accessible and specific to the context and environment in which they are working. The key areas that nurses from this study want training in are; management of emergency events, mental health, midwifery, advanced clinical skills, medicines and cultural training. Many of these are also supported in the literature (Pavloff, Farthing, & Duff, 2017; Sedgwick & Pijl-Zieber, 2015; Endacott & Westley, 2006).

Incentive packages that participants had received on taking up their posts varied depending on the location that they were working in. Whilst on the surface these packages appeared generous and enticing, in reality, many of these nurses were not able to access the benefits including paid professional development leave, due to difficulties finding staff to replace them whilst away. Many nurses undertook professional development activities in their own time to

try and maintain their knowledge and competence. There was a general perception that organisations were happy with this, almost encouraging of it, so that staff remained updated and there was minimal disruption to the service.

The subject of mandatory training was a new finding that contributes to the existing body of literature. Participants reported being overwhelmed by the amount of mandatory training to be completed, finding it difficult to keep up with its completion. Mandatory training was generally delivered online, making it difficult to complete during the working day and an isolating activity. Most nurses were completing the online mandatory training during their own time. Participants perceived that the majority of managers' concerns appeared to revolve around the mandatory training being completed rather than any other type of professional development. There were some reports that managers had been encouraging of professional development activities and did what they could to try and minimise self-funding where possible, although this was not usually successful. One manager who participated in this study did state that she put all nurses through the RIPRN course and encouraged them to attend CRANA courses where possible.

Skill maintenance has been touched upon in the literature (Henwood et al., 2009; Mills et al., 2008) however there is not a wealth of research into how nurses maintain their skills when they are not using them frequently. Nurses felt concerned when they had to undertake a skill which they had not used for some time. Access to nurse educators did not appear to be easy and a common solution was to look at YouTube prior to undertaking the skill. In some cases, staff that had the skills were heavily relied on to deliver the care. This meant that staff were coming into a facility on their days off to deal with issues such as Portacaths and PICC lines, for example. This reactive solution does not solve the problem of nurses not having the required skills as those nurses who were skilled were at risk of burnout as they provided additional support. There was no discussion of taking a proactive approach to training up other nurses.

One solution that has been postulated to help with skill maintenance and development of Allied Health Professionals (AHPs) is that of attending larger centres to upskill (Blayden, Hughes, Nicol & Hubbard, 2017; Parkin, McMahon, Upfield, Copley & Hollands, 2001). These opportunities were being thought through and formally piloted in QLD at the time of writing up this thesis (Byrne et al., 2018) following the National Strategic Framework for Rural and Remote Health (DoH, 2016). Several study participants had taken up the opportunity informally to either visit larger centres or very remote facilities to develop the skills that they felt would not only benefit them personally but also the facility in which they worked. Their ability to do this had not been easy, with one nurse having to do this during her own annual leave and another having to gain a scholarship to do so. Both participants said that the experience had been invaluable to their practice as a rural and remote nurse. This is an area that is recommended for nurses to support them in transitioning to rural and remote practice gaining experience in both metropolitan hospitals and rural and/or remote facilities.

One aspect regarding professional development that was clear throughout all phases of this study was the need for professional collaboration and networking, however these opportunities were decreasing. Section 7.3.7 presents this discussion. There were two other areas which stood out within the study that nurses felt ill prepared for. These were mental health and midwifery.

7.3.6 Mental health care and maternity

Mental illness is increasing in rural and remote areas (Harvey, et al., 2017) and consequently nurses are dealing with a higher number of presentations. Participants particularly noted an increase in child and adolescent mental health; an area which many nurses struggled with understanding. Nurses within the study expressed their fear in dealing with mental health presentations. Many of them often felt unsupported by qualified mental health professionals even when they were available. The increased use of telehealth or tele psychiatry (Saurman et al., 2015; Saurman et al., 2011) was felt to be inadequate, particularly when it was not a routine appointment. Nurses expressed that whilst there was someone on the end of a

telephone or computer, they were the ones that were sitting with the presenting client. The issue of mental health provision in rural and remote areas has been researched at a service level and government reports and strategic plans have been put in place to address the worsening issues (QLD Mental Health Commission, 2016). Phase One discussed some of these documents. However, there still remains a lack of research exploring the nurse's feelings, competencies and education needs surrounding mental health.

Much of the research looking at preparation for mental health practice has focused on the evaluation of online mental health courses for health care professionals (Kverno & Kozeniewski, 2016). Whilst this research evaluates these programmes in a positive light, a study by Bulbrook, Carey, Lenthall, Byers, & Behan (2012) revealed that 92% of their respondents wanted face-to-face delivery through workshops, with 81% wanting more visits from mental health teams. There were 35% of respondents who felt strongly that web-based delivery was not suitable for this topic area. These figures are more representative of this study's sample with nurses wanting face-to-face training from mental health professionals that would give them the skills to use in practice.

The areas of concern for the nurses in this study are representative of the wider body of literature and include; child and adolescent mental health, depression, suicide, assessment, drug and alcohol, and psychosis (Beks, Healey, & Schlicht, 2018; Bulbrook et al., 2012). Nurses expressed feeling a lack of confidence, inadequately supported and insufficiently prepared (Beks et al., 2018; Clark, Parker, & Gould, 2005). Some of the participants within this study felt strongly that mental health services were not adequate for the community, whilst others had no interest in providing mental health care and found it a frustrating part of their job. They had no interest in mental health and admitted to not understanding mental illness. Evaluations of mental health training, despite being via online delivery, did demonstrate its effectiveness in changing attitudes with respondents saying that prior to undertaking training they were stereotyping and stigmatising and that their view of mental illness had subsequently changed (Ellis & Philip, 2010).

Alongside mental health, maternity was the second area of clinical practice that participants expressed concern over. In situating the responses, the researcher went back to the literature to find some background as to the state of midwifery services in rural and remote areas, as the study had focused on a nursing perspective only.

From the literature it was evident that midwifery was experiencing the same concerns over shortages of midwives in rural and remote areas as nursing (Yates, Usher & Kelly, 2011; Belton et al., 2010; Kildea, Kruske, Barclay & Tracy, 2010). One of the reasons for this shortage that is purported within the literature is the number of midwives leaving rural and remote areas due to conflicting roles. Many midwives have a dual qualification as an RN and with the shortages of RNs many organisations are addressing their nursing workforce issues by having midwives working in this capacity alongside their midwifery role (Yates et al., 2011). This has led to job dissatisfaction amongst midwives, issues around skill maintenance and decreased confidence of the midwife in dealing with birthing situations (Stroth, 2010).

Workforce issues concerning not only midwives but also trained medical staff, contributed to safety concerns and the subsequent closure of a large number of birthing facilities across rural areas. Bryant (2009) in a government report stated that 130 rural maternity units had been closed Australia-wide between 1995 and 2008. Within QLD alone, maternity units had decreased from 84 to 41 up to 2009 (Yates et al., 2011). The closure of birthing facilities is not contained to Australia alone and is an issue noted in the literature globally with Canada experiencing the same difficulties (Yates et al., 2011). The closure of facilities has resulted in women having to leave their communities and families from 36 weeks gestation (in an uncomplicated, low risk pregnancy) and travel to larger facilities to give birth. This can be traumatic for many women who consider that leaving *country* affects their maternal and perinatal health outcomes with many women feeling culturally unsafe (Kildea et al., 2010; Kruske et al., 2006). Participants within this study noted their experiences of women who chose not to travel to larger cities for these reasons which meant that they were required to provide maternity care to these women when they presented in the late stages of pregnancy.

Alongside this they spoke of having to deal with maternity emergencies either in the absence of a midwife altogether or out of hours when trained staff were some way away.

With no midwifery training, participants felt unprepared for this practice and held concerns over working outside of their scope of practice. For maternity emergencies and assessments for referral, nurses can work under the Maternity Emergency Guidelines for Registered Nurses (Australian College of Midwives, 2014) to remain within scope, however when a nurse chooses to care for a woman routinely to enable her to remain at home, the question of appropriate and safe scope of practice should be asked. This practice was reported by participants in this study who had observed nurses caring for pregnant mothers within the community rather than referring them to a larger facility as per policy.

Some of the participants in Phase Two of the study had undertaken the Maternity Emergency Care course (MEC) that is run by CRANA*Plus.* This short course is designed to help health professionals such as RNs and AHWs, who have no formal midwifery qualifications, to identify and refer pregnant women and to respond to unexpected births and maternity emergencies prior to transfer. This course has been evaluated well both in the literature and by participants within this study and it could therefore be suggested that all RNs should undergo this training when working in rural and remote areas. Indeed, some remote organisations have taken this strategy to prepare their RNs. Despite having undertaken the course, some RNs still stated they would be 'running out of the door' if a pregnant lady arrived at their facility proving that, even with such preparation, nurses do not want to undertake this aspect of health provision and a review of the skill mix and employment of RNs and RMs is required.

7.3.7 Health, wellbeing and burnout

The adverse effects on health and wellbeing on nurses working in rural and remote areas have been well documented within the literature. This study has replicated these findings demonstrating the high levels of burnout leading to increased numbers of sick days. Further

to this are the recruitment issues with nurses leaving posts to take up roles in a less stressful, more supported environment (Opie et al., 2010; Green & Lonne, 2005).

This study has however, contributed new findings to the area of health and wellbeing. The notion of support offered through the opportunity to network with other rural and remote colleagues was an area of concern for nurses. The study's findings portray a picture in which nurses have diminishing opportunities to meet with others to debrief and network. The ability to meet with other nurses that hold an understanding of the context of rural and remote nursing was considered crucial to the maintenance of an individual's health and wellbeing. Without these opportunities, it is unclear where nurses are able to 'let off steam', reflect on critical incidences and subsequently develop practice. Participants spoke of partners who fulfilled this important role, however others noted the inability to use partners to debrief, due to the issues of confidentiality in working and living in a small community.

One of the major contributory factors to the lack of networking opportunities reported (more so in the QLD case) was the move away from annual mandatory training days held at a central hub. Participants perceived this was due to organisational cost-cutting by managers that didn't see the wider benefits of holding these days. With a move to have all mandatory training accessible online, organisations were avoiding cost issues in transportation and accommodation of nurses, as well as replacement staff by no longer running these days. The move towards online training has been reported within the literature but the absence of face-to-face training and the effects on the nurses' ability to socialise with colleagues has not been previously reported and is a significant finding of this study. The study showed that there was no formal debriefing or clinical reflection reported to be occurring in the two cases of this study. There were reports of informal debriefing occasionally happening if there had been a particularly severe trauma usually involving someone known to the nurses. The advantages of debriefing are well known (Clark & McLean, 2018; Burns, 2016) and the lack of opportunity to participate in this is concerning to the nurse's health and wellbeing.

Another area of concern for the nurse's health was that of their personal safety. Many of the participants in Phase Two and Three expressed their concerns about the violence that they are subjected to, witness or fear. This is not a new finding; increasing rates of violence towards all nurses regardless of location or country have been reported for a long time (Ramacciati, Ceccagnoli, Addey, Lumini, & Rasero, 2018; Gabrovec, 2017). Violence towards rural and remote nurses, however, is less frequently researched and where research does exist it focuses on remote area nurses, often working as sole practitioners. Research carried out amongst remote area nurses raised the issue of increasing and alarming levels of violence (McCullough, Lenthall, Williams & Andrew, 2012; McCullough, Williams & Lenthall, 2012; Opie et al., 2010b) and made recommendations at individual, environmental, organisational and community levels to address the ongoing problem (Lenthall et al., 2018). Despite these recommendations, this study demonstrates that nurses are still facing verbal and physical abuse from patients and community members. McCullough et al. (2012) noted the organisational responsibilities held in ensuring safety for their employees. Despite this, participants within this study reported having not achieved any changes to their security and safety despite numerous meetings with managers to ask for changes to take place. These conversations with organisations were particularly highlighted following the murder of Gayle Woodford, a remote nurse, in 2016.

This study highlighted many organisational concerns regarding negative culture in the workplace contributing to stress in nurses.

7.3.8 Organisation

Negative organisational culture has been noted in the literature previously (Garcia et al., 2017; Williams, Perillo & Brown, 2015), however new findings from this study focus around two areas. Firstly, participants within this study perceived that there was inappropriate leadership and promotion of nurses to senior positions. Secondly, participants perceived that the perceptions held by metropolitan organisations regarding rural and remote health services and their capabilities were misguided.

Many participants shared examples of nurses being promoted to leadership or management positions that they considered to have insufficient skills or experience. This practice was perceived to occur so as not to lose someone, to ensure they were retained in an organisation, and to promote 'friends'. In these circumstances, nurses were not receiving the leadership and clinical support that they would expect from a senior colleague. The researcher carried out an extensive search of health, business and psychology literature, however no research was found that discussed employee perceptions of inappropriate staff promotion.

The second area of significance that this study contributes to regarding the organisation is how participants believed metropolitan organisations perceived rural and remote nurses and the capabilities of facilities in these areas. Nurses reported many examples of inappropriate requests from metropolitan staff for CT scanning, inotrope administration and intubation prior to retrieval of patients. Nurses were working as sole practitioners in facilities that did not have x-ray facilities and with no doctors available and were taken aback by such requests. Participants discussed how they perceived metropolitan nurses as complacent about patients having to travel to attend a 15-minute appointment to see a specialist, not understanding that this would involve a three-day round trip at great cost. Metropolitan nurses did not participate in this study, however, these findings demonstrate that there may be a need for more education around both the context of rural and remote Australia as well as health service provision in such areas.

7.3.9 Advanced practice/NPs

As alluded to in section 7.2.2, previously published literature has referred to rural and remote nurses as working at an advanced level of practice. Whilst this study provides evidence to support an advanced clinical level of practice, it argues that the role in its entirety is not at an advanced level. Hamric et al.'s, (2009) framework of advanced practice purports that to work as an advanced practice nurse, the role comprises several domains of practice in which research and education feature. None of the participants were undertaking any type of research and if the role of the 'advanced practice' RN in a rural and remote area is compared

to an advanced role within a metropolitan area such as a Clinical Nurse Consultant then the domains are significantly different with CNCs having to fulfil research, education and leadership domains. It could be argued that a comparison cannot be drawn from these two different roles due to the way services are structured in rural and remote areas as compared to metropolitan services. Indeed, the researcher appreciates that with the pressures of minimal staffing and increasing acuity in rural and remote areas there is little time for nurses to take on such roles. Perhaps it is time to look, not at rural and remote nurses as being advanced practice nurses or undertaking advanced nursing practice but as a specialisation demonstrating advanced clinical skills that deserves recognition in their own right for the roles and responsibilities that they hold, working in unique environments.

As noted above, the clinical practice of the RN is evidently at an advanced level and one of the major roles and responsibilities to support this claim is their advanced patient assessment and medications management. Chapter Four made reference to the NMBAs consultation with academic providers and stakeholders regarding the proposal to change the current accreditation standards for undergraduate nursing programmes to include training for prescribing (ANMAC, 2018; NMBA, 2015). The prescribing capacity of nurses upon qualification would be to work within protocols much like those nurses that currently have the RIPRN endorsement in rural and remote areas to prescribe, dispense and administer under protocols. The recommendations from the 2015 consultation replaces RIPRN endorsement with all nurses being able to prescribe under protocol. RIPRN was by far the most common postgraduate course undertaken by nurses in this study and the most highly regarded in relation to the context of rural and remote practice. The RIPRN course provides contextual education for rural and remote nurses that, through endorsement, indicates a level of appropriate preparation for the advanced clinical element of practice. The benefits of the RIPRN course also extend beyond the management of medicines. Participants reported that the training focusing on patient assessment skills were invaluable. Thus, the researcher

argues that replacing it with a generalised change to undergraduate medicines education affects the ability of nurses to deliver efficient, safe and advanced nursing care.

This study did not have many participants that were endorsed as NPs. Phase Two had two respondents and Phase Three just one. The information that was gleaned around the role of the NP from those endorsed as well as nurses and those with a managerial element within their role provided findings that are new to the existing body of literature. It is acknowledged that whilst the creation of NP posts was to support rural and remote areas, in reality most NPs work within urban and metropolitan facilities.

This study has shown that the reason nurses are not undertaking NP courses, aside from the expense and workload associated with its completion is that there are no jobs for them once they become endorsed. Indeed, one participant discussed a NP that had undergone the training and is now unable to work in this capacity because she is unable to obtain a job. All of the nurses within this study saw the huge benefits and potential of having NPs working in rural and remote areas. NPs are able to work within a legal framework that supports an advanced scope of practice and have the skills, knowledge and experience to support less experienced RNs. Nurses have concerns that there is not a sufficient legal framework to support the scope of practice that they are working to. Previous literature has stated that nurses do not want to undertake NP endorsement because they are doing the job anyway (Keating et al., 2010; Bagg, 2004). Whilst some participants did indeed acknowledge that they do carry out aspects of the NP role, they didn't feel that they could fill the role as they did not have the advanced level of thinking that came with undertaking the course. From the findings of this study therefore, this view is contested, and it is more about securing a job rather than simply not wanting to formalise their role through further education.

The major driver for nurses wanting to undertake endorsement was the ability to prescribe. The universal frustration expressed by nurses in this study was that they knew what needed to be done but they were unable to do it due to not having the policies, protocols or scope to

support them in doing so. The NP in this study said that this frustration has been relieved by attaining those prescribing rights. This study highlights the significance for organisations to look at workforce models and create NP roles, supporting experienced RNs to undertake the education with the security that there is a position on completion.

7.4 Cognitive Dissonance Theory

In considering the overarching research question which asked, *'What is the practice of Registered Nurses working in rural and remote areas of Australia?'* the Theory of Cognitive Dissonance is suitable to apply to the findings in order to answer this question. This section of the chapter discusses and applies the theory (Festinger, 1957) to the nine new study findings presented in section 7.3. The theory aided advanced analysis and subsequent explanation of the findings. This discussion forms the foundation for Chapter Eight in which the study's contribution to existing theory is presented, as well as the implications and recommendations for practice.

Festinger first investigated the Theory of Cognitive Dissonance in 1957. Festinger believed that we all have an inner drive to maintain an equilibrium between what we think and how we act. The way that we act on a daily basis is based on our attitudes and beliefs; for example, if a child knows that he is unable to participate in sport if he is wearing the wrong uniform, he is motivated to wear the correct uniform (assuming that he likes sport!). This relationship between our knowledge of a situation and the way we act is typically at an unconscious level (a taken-for-granted way of behaving based on the person's belief system). However, when there is an inconsistency between what we know and how we act, the person can develop psychological discomfort (Festinger 1957). It is rare for these inconsistencies to be accepted psychologically by the person. Rather, the person rationalises inconsistent behaviour in some way. Festinger's (1957) seminal example of this is of the smoker who believes that smoking is bad for your health. As a way of overcoming the inconsistency between his belief and act of

smoking (his behaviour) he seeks to gain further evidence contrary to his original belief. If the inconsistencies cannot be overcome and rationalised and consistency is not achieved, then the person experiences a sense of psychological discomfort.

Festinger refers to the inconsistency as dissonance and consistency as consonance and these terms are used herein. The beliefs or knowledge held is referred to as cognition which Festinger defines as: *"any knowledge, opinion or belief about the environment, about oneself, or about one's behaviour"* (Festinger 1957, p.3). It is pertinent to consider these cognitions and how they lead to dissonance prior to applying the theory to the findings of this study.

Many findings from this study demonstrate the influence from colleagues, the organisation or the LHD/HHS as a whole. This is important as when considering cognition, it deals in general with what the individual does or feels or what exists in their environment. However, what other people think or do, tell another person or encounter in their role also has an impact either positively or negatively on the individual's opinions, values and beliefs. This is in line with the principles of this case study research design and the philosophical influences of social constructivism in that the context is so important in establishing social constructs of realities (Merriam, 2015; Yin, 2014; Patton, 2002) which supports the application of Cognitive Dissonance Theory to this study. Social constructivism has provided a framework for this study which enabled an understanding of how nurses *learn* both individually and within the social context of rural and remote nursing. Baviskar, Hartle & Whitney (2009) wrote that for learning to occur through constructivism, a sense of dissonance needs to be present. Cognitive Dissonance Theory enables an understanding of how people *react* to such dissonance, thus providing an understanding of the actions and behaviours of nurses in particular given contexts, which enable them to learn and develop their nursing practice.

In the case of cognitive dissonance, Festinger (1957) hypothesised that:

- The existence of dissonance and the subsequent effect of discomfort motivates people to reduce the dissonance and increase consonance

- In addition to trying to reduce the dissonance, people also actively avoid situations and information that increases dissonance (p.3).

It is important to recognise that different individuals have different beliefs and reactions about events or interactions with others. For one nurse they may experience dissonance but not for another nurse. The difference can be explained by the influence of a person's cultural background and previous experiences. Interestingly, the findings discussed below about nurses feeling dissonance were experienced by several nurses in this study.

7.5 The reduction of dissonance

With a disequilibrium existing between belief and behaviour, dissonance occurs leading to the motivation to decrease this psychological discomfort. To eliminate the dissonance a change needs to be made to one of the components causing the dissonance (behaviour or beliefs). People in a state of dissonance always move towards decreasing their sense of discomfort. Depending on the type of cognition involved and the context within which it sits depends on how these components are changed.

Figure 7.2 illustrates Festinger's Theory of Cognitive Dissonance (1957).

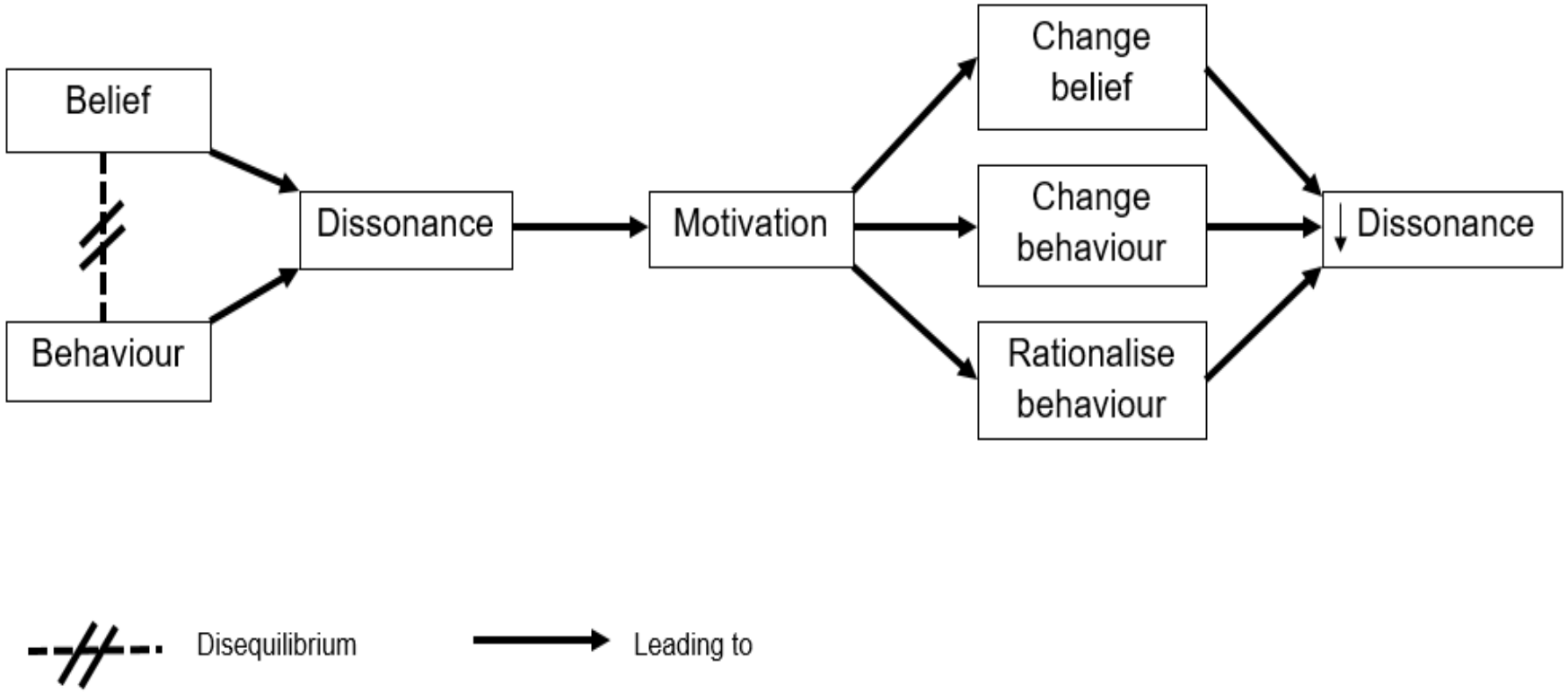


Figure 7.2 The Theory of Cognitive Dissonance (Festinger 1957)

Attempting to change a behaviour – this is often a difficult task to achieve. Consonance is only possible if the individual has a level of control over their environment which may not be possible within the context of an employing organisation. The reality of the context in which the individual is in may bring about a resistance to change even if the individual so desires it. A social environment is easier to change than a physical one and Festinger (1957) noted that individuals often surround themselves socially with people that behave the same way, as an attempt to validate their behaviour and reduce the dissonance experienced. In this way the environment in which a person is situated has a great influence on their behaviour. Indeed, Festinger (1957) wrote that *"dissonance might exist because of what the person has learned or come to expect, because of what is considered appropriate or usual"* (p.13). Finally, a behaviour may be changed to reduce or eliminate the dissonance experienced, however, the change may cause other dissonances to be created which leads to the individual abandoning the commitment to change the behaviour (Harmon-Jones & Harmon-Jones, 2002). Within this strategy the environment also features as a way of obtaining consonance.

Obtaining new information that outweighs the belief held (change in belief) – people seek to obtain new information that disproves or questions their belief thus, in this way they are underestimating or making light of the belief. This strategy and rationalising the belief (below) to be more consistent with behaviour is easier than changing the behaviour itself (Harmon-Jones & Harmon-Jones, 2002).

Decreasing the importance of the belief or attitude held (rationalising the belief) – finally, an individual can begin to rationalise the cognitive dissonance, decreasing its importance. Within behaviour change the individual attempts to surround themselves with people behaving in the same way or holding the same beliefs; *"everybody else does it so it can't be that bad"*. Individuals may also modify their belief for example changing from *"I always work outside of my scope of practice"* to *"I don't work outside of my scope of practice very often"*. Another way in which the importance of the belief can be altered is through the addition of other cognitions. For example, *"I have seen doctors in ED do this so many times I know exactly what to do".*

With the addition of cognitions, resistance can be met when the individual is unable to find support from others for the new cognition.

The application of the Theory of Cognitive Dissonance has not been described widely throughout the nursing literature with the majority of literature within the disciplines of religion, business and finance. A search of the literature published in the last decade revealed several UK papers arising from the Francis Report (2013) regarding care erosion. There was also one paper applying cognitive dissonance to the acceptance of low staffing levels in an Intensive Care Unit. There was no literature that applied the Theory of Cognitive Dissonance to the practice of rural and remote nurses. This study, therefore, through the application of Cognitive Dissonance Theory, offers a significant contribution to new knowledge. It also offers a contribution to advancing practice by the application of a theory to provide a new lens through which to view and understand the decisions that rural and remote nurses take and the effects these decisions have on their practice.

7.6 Cognitive Dissonance Theory as applied to findings

A number of factors are considered important when looking at attitude change and the presence of dissonance. These are; post-decision dissonance, forced compliance, voluntary and involuntary exposure to information and the role of social support (Festinger, 1957). These are now discussed, including how they apply to the study findings.

7.6.1 Post-decision dissonance

Some participants reported dissonance and concern after a decision had been made. An example of a decision made when a nurse experiences dissonance is when a nurse decides to conform to others. If, applying the Theory of Cognitive Dissonance, nurses are required to work through their decision to achieve consonance, there are a variety of ways this can be done.

Festinger (1957) notes that the first action is changing or revoking the decision. First, timing to revoke a decision can be altered depending on how soon it is altered. A decision could be revoked immediately after it has been made yet the level of dissonance felt may not change. Second, a decision could be revoked after a period of time during which the individual gains further cognition on which to outweigh the decision taken. In the case of treatment decisions this is unlikely, particularly when there is an immediacy to the situation. Finally, the decision could be revoked psychologically with the individual admitting that they have made the wrong decision but not accepting responsibility for it. In such circumstances, nurses can say that they had no choice but to make the decision for treatment, as there was potentially no one else to make it.

The second way of reducing post-decisional dissonance is by changing cognitions (Festinger, 1957). This is done in two ways; firstly, cognitions associated with the alternative decision can be found, or secondly; (the more positive response) is to support the decision taken. Thinking to gain the support of others is one way that this can be done. Many participants described their thought processes in seeking validation for decisions from colleagues, managers or medical staff after an event. The final approach is to establish cognitive overlap (Festinger, 1957). This is achieved by taking the components from each of the potential actions and putting them in a context whereby they lead to the same result.

7.6.1.1 Scope of practice

It was the area of scope of practice that clearly showed how nurses experienced dissonance and struggled to achieve consonance. Participants all knew the regulations surrounding their nursing practice, they were aware of the nurse's scope of practice and the risks of working outside of scope. Findings demonstrated that the participants understood the scope of practice and believed in the restrictions associated with them **(beliefs)**. However, it was evident, particularly in Phase Three, that many nurses were exceeding this scope of practice, sometimes on a daily basis **(behaviour)**.

For those participants who were exceeding scope of practice, the Theory of Cognitive Dissonance can be applied in three different ways. Firstly, the nurse's action can cause the dissonance which culminates in rationalisation (post-decision dissonance). The first group were nurses who made a decision to work outside the scope of practice. In their attempt to achieve consonance they rationalise their behaviour by adopting the belief that they were the only ones there and that they therefore had no choice other than to carry out the task **(action)**. They implied that if they hadn't done so there would have been some sort of detrimental effect on the patient. This was related to both emergency situations as well as day to day tasks. In some cases, the task could have been undertaken by another professional who was suitably qualified, however nurses chose to expedite care by not waiting for that professional, therefore exceeding their scope of practice.

The second group of participants were the sensation-seeking nurses in which dissonance only occurs when things go wrong, leading to action (blaming others). There are only a small number of nurses in this study categorised into this group. Participants spoke of other nurses who disregarded their scope of practice. When discussing scope of practice, some participants regularly referred to certain nurses as going ahead and doing what they want to, despite knowing that they shouldn't be doing it **(belief)**. One participant referred to a previously employed nurse as a *'cowboy, in it for the adrenaline kick and forgetting the purpose of being there'*. Mustika and Jackson (2016) refer to these individuals as sensation-seekers; people that find and explore new experiences to obtain stimulation rather than rewards. Sensation seekers do not consider their environment a threat, they see it as an opportunity to engage in exploratory behaviour (Franken, Gibson, & Rowland, 1992). They also do not perceive their behaviours as leading to negative outcomes. When unsafe work practices occur, consonance is achieved by adding the belief that they are at the fault of the organisation in not providing enough support **(action)**. In addition, behaviours were also rationalised by stating that *'they wouldn't be sued because they work in the bush'*, thus using their context to rationalise their behaviours **(action)**. It is in these situations that there is a real risk of acceptance for

suboptimal care (further discussed in Chapter Eight when making recommendations for future practice).

The final group are those nurses who seek out information to decrease dissonance and this is discussed later in section 7.6.3.

7.6.1.2 Culture

Within all phases of the study the concept of culture was dominant. Phase One data suggested that nurses needed to have culture at the forefront of their care delivery. Since Phase One analysis was undertaken, one of the core documents for nursing regulations; the *Code of Professional Conduct* (NMBA, 2008a) was replaced with the *Code of Conduct for Nurses* (NMBA, 2018). This new code contains an entire section, 'Cultural practice and respectful relationships', devoted to nurses engaging with people as individuals and in a culturally safe way (NMBA, 2018, p.9) demonstrating the importance this has in nursing practice. Phases Two and Three of the study explored how nurses saw these cultural factors featuring within their practice, the importance they held and the ease at which they are accomplished. All of the nurses that participated in Phase Three acknowledged that nurses are required to have cultural awareness and provide culturally-appropriate and culturally-safe care **(belief).** However, when discussing this belief with them and how this transpires in their everyday practice, there was evidence of dissonance held between their beliefs about the importance of this and/or their ability and willingness to put it into practice **(behaviour).**

There were two categories of responses regarding culture. The first was from nurses who reported that they did not understand particular individual cultures or the importance of culture to individuals. This resulted in culturally insensitive care being provided **(behaviour)**. The second group of responses related to nurses who were aware their care was not providing culturally appropriate care. Nurses reported not being as therapeutically involved with individuals for fear of causing offence **(behaviour)**. Once again, this stemmed back to an

inadequate knowledge of cultures within the communities in which the nurses worked. Both of these responses were seen to be dissonant.

After an event, individuals may blame the organisation or an individual of a different culture. Where communication had not been successful, one participant referred to an Indigenous organisation as *'not being good at communicating'*. There was no responsibility taken on the part of the individual, decreasing his dissonance by reassuring himself that his behaviour was appropriate on the basis of the fault of the other cultural group **(action)**. Another participant's dissonance was evident when she was unable to get Aboriginal clients to her clinic for chemotherapy. Her belief was that the individuals required the treatment, yet she was not able to deliver it **(behaviour)** as the individuals were not turning up for their appointments. It was apparent that she felt a great deal of unease with this situation about the non-attendance at clinic. To address her dissonance, she added new cognitions that supported a belief that these people did not want help *"I mean they're adults … it's a choice … meet me half way, those people that don't want to … do you want the treatment or not?"* and rationalised by telling herself if they were not willing to attend then she could not help any further and she had done all she could to improve this attendance.

This study shows that nurses in this study were lacking in cultural training. Where education was available it was usually online and felt to be unsuitable, with many nurses not completing it. Some nurses spoke of the enormous benefit of attending cultural training but for some the time spent with community members and Aboriginal Health Workers learning about the community, its people and its values was more useful.

7.6.1.3 Transition

The transition to rural and remote practice either as a new graduate or an experienced nurse entering from a metropolitan organisation was found to be highly stressful. Festinger (1957) points out that a change in a job or a status can cause dissonance. These changes bring about a change in the persons beliefs and emotions. Participants believed that the transition would

be smooth and achieved quickly and effectively **(belief)**. In reality however, many nurses within this study were struggling to adapt to the environment leading to extreme stress and a decreased wellness **(behaviour)**. Interestingly, participants transitioning from a metropolitan area, where they had gained extensive experience also reported vast difficulties in transitioning to the rural or remote environment. Managers, however, were perceived to view these nurses as 'expert' practitioners due to their experience. The immense contextual differences to practice were not being considered with the expectation that nurses would arrive and hit the ground running. This was not the case and even the most experienced nurses reported dissonance.

In overcoming such dissonance nurses reacted in different ways. For some nurses the transition was a challenge, but they took no further action **(action).** Others sought support from colleagues and managers and rationalised that all transitioning is stressful, especially for the novice practitioner **(action)**. There were a number of nurses, however, who experienced such high levels of dissonance in managing their expectations of their transition and those of the organisation. If dissonance becomes extreme like this and information cannot be sought to provide resolution, then the individual looks to remove the dissonance altogether. In the case of this study the nurses resigned from their positions and moved to larger facilities. With the ever-increasing workforce difficulties the issue of transition must be acknowledged and addressed to recognise the dissonance and work towards attaining consonance and subsequent retention of nurses.

After a decision has been taken, Festinger (1957) advocates that more work needs to be done to ensure that any dissonance that remains is eliminated or reduced. Lewin (1947) noted that the effects of a decision may be ongoing and an individual or group needs to be resolute with that. There is a need for individuals to critically reflect on their decisions as soon after as is possible and this is discussed further in Chapter Eight.

7.6.2 Forced compliance

Dissonance is seen to be caused by forced compliance whereby an individual carries out a behaviour that is against their particular belief in order that they comply with the behaviour or expectations of others. This is more likely to happen when there is a reward or punishment associated with non-compliance (Festinger, 1957). With forced compliance, behaviour is seen to return to align with the individual's belief once the need to comply for reward or the punishment is removed.

Another lens through which the findings of this study can be viewed to explain why nurses take the actions that they do to reduce dissonance is that of Conformity Theory (Deutsch & Gerard, 1955). Conformity can be defined as 'changing one's behaviour to match the responses of others' (Cialdini & Goldstein, 2004). The need to belong to a group was highlighted in the seminal work of Maslow (1943). More recently, Levett-Jones and Lathlean (2009) discussed a number of studies that looked at undergraduate students which demonstrated the students need 'to belong'. As such, they admitted to not speaking up when poor practices were observed and going along with inappropriate care provision. These findings are replicated in the context of this research. Within a group an individual can begin to believe that the views and beliefs of the group are correct and that their own views must be defective. Conforming to group norms is a well-established process of social cognition (Paley, 2014). To achieve belonging to a group, two types of conformity are reported; informational and normative conformity.

Informational conformity is where the individual has a desire to form an accurate representation of reality by accepting information from another and thus conforms (behave correctly) (Cialdini & Goldstein, 2004; Deutsch & Gerard, 1955). An example of informational conformity would be new graduates who often lack knowledge and look to others for guidance (Price, Duffy, McCallum & Ness, 2015). The second type of conformity is normative whereby the goal is to obtain the positive expectations or social approval of others (Cialdini & Goldstein, 2004; Deutsch & Gerard, 1955). An example of normative conformity is new graduates gaining

approval from senior staff members that they were acting appropriately and able to perform in the job effectively. These two types of conformity are often interlinked. Both types of conformity can be applied to the findings of this study.

In this study, many of the nurses reported feeling uncomfortable about being told that 'this is the way that it is done here'. They were adopting behaviours in order to be accepted by the team and to belong, despite them being against their own beliefs. This made some participants feel extremely vulnerable and they subsequently found it difficult to achieve consonance. Despite nurses' aim to remain within their scope of practice, the expectations from others may be too strong for nurses to adhere to their beliefs. Whilst nurses are adjusting and becoming compliant with others' existing behaviour, this continues a vicious cycle which at times encourages nurses to step outside their scope of practice.

7.6.2.1 Primary Health Care

One of the new findings from this study that hasn't been documented in the literature to date is that of the inability of rural and remote nurses to fulfil their primary health care roles. Data from Phase One explicated the PHC model of care to which rural and remote community facilities work. An essential aspect of this model is preventative health care through the delivery of health education and health promoting activities (McMurray & Clendon, 2015). Nurses working in community facilities throughout Phases Two and Three reported that a fundamental facet of their role was in undertaking these activities **(belief)**. In practice, however, nurses spoke of their inability to fulfil this role due to organisational constraints and pressures **(behaviour)**. A paper by Paley (2014) discusses the Francis Report from 2013 in which a lack of compassion in nurses was put forward as one of the major contributing factors to the 'appalling care' provided in a UK NHS hospital. Paley, however, argues that it is not that nurses do not have compassion, rather the organisational context affects social cognition, not allowing nurses to behave appropriately. This is an interesting argument for the findings of this study. Nurses showed frustration about being unable to fulfil this part of their role. This

dissonance could be caused by the social context of the organisation rather than incorrect beliefs held by nurses.

Nurses reported a change to their role, seeing a rise in acuity of patients and a higher demand for their services. These pressures resulted in nurses not being able to engage in community health promotion initiatives, causing a dissonance between what they knew they should be doing and what they were able to achieve. Nurses reported that they were behind in all screening programmes with the exception of immunisation. In reducing the dissonance, whilst not impossible, it was difficult for the nurses to change their behaviour due to organisational contextual factors. However, nurses were trying to change their beliefs by adding additional cognitions and rationalising their behaviour to achieve a sense of consonance **(action)**. Telling themselves that they *'have Aboriginal Health Workers to do those jobs'*, *'if they were doing that then they wouldn't be caring clinically for their patients'*, and they *'can't physically do everything'*.

7.6.2.2 Experience

The number of years of clinical experience needed before working rural and remote was a significant and new finding from this study. Throughout Phases One and Two there were high levels of concern expressed that nurses were coming to work in rural and remote environments ill prepared to cope with the role and more importantly the level of responsibility afforded to nurses in these locations. New graduate nurses as well as nurses with less than five years clinical experience are being recruited to work in rural and remote areas **(behaviour)**. This was particularly so in the case of NSW. In Phase Three most participants strongly argued for nurses having a minimum of five years post-registration experience in a larger centre being required prior to working in rural and remote areas. This dominated the Phase Three participant responses **(belief)**.

For novice nurses in this study, many excerpts were gleaned that demonstrated the extreme levels of dissonance experienced. In attempting to reduce the dissonance, nurses that were

struggling made attempts to change their behaviour by seeking out professional development and learning opportunities to help them manage new situations and the responsibilities that came with the role **(action)**. Many nurses tried to change their belief that they were too inexperienced to cope with the role by telling themselves that they didn't need the experience, but they did need the support **(action)**. For managers in this study, they rationalised their decision to employ new graduates because they had difficulty in recruiting staff.

7.6.2.3 Mental health

Phase One findings highlighted the importance of mental health care in rural and remote areas (Department of Health, 2016a). In particular QLD proposed specific strategies to address the increasing number of people affected by alcohol and other substance disorders, mental health issues and suicide (QLD Mental Health Commission, 2016). This study supported the findings of previous studies with participants noting the increasing numbers of mental health presentations. Findings of previous work have been built on and further contributions regarding the increasing pressure on nurses to manage these presentations effectively have been made. All of the participants interviewed in Phase Three acknowledged that mental health care needed to be appropriately delivered to their patients and that they were seeing an increasing number of presentations **(belief)**. However, their behaviour was not consistent with this belief, generating an uncomfortable feeling of dissonance. Nurses felt they were providing inadequate care due to not being equipped with the skills to effectively manage these presentations **(behaviour)**. Nurses feel forced to comply with the expectations of the organisation and the community to provide mental health care despite feeling ill-prepared to do so.

There was a group of participants that acknowledged that they did not like mental health nursing. Thus, they had chosen not to specialise in it and didn't actively seek to address these health issues. However, with the rise in mental illness across Australia generally (Harvey et al., 2017) and more so in rural and remote areas, mental health care is now the responsibility of all nurses. These nurses rationalised their behaviour by telling themselves that it wasn't part

of their role and that they were not qualified to deliver mental health care **(action)**. Others rationalised their behaviour in the opposite way, supporting themselves in providing the care. These nurses stated that if they didn't provide the care then nobody would, what they could deliver was better than nothing and that they had had some mental health training in their undergraduate degree **(action)**.

Earlier in this chapter it was noted that Festinger (1957) acknowledged that whilst a particular action may reduce dissonance in one area, it could subsequently be increased in other ways. This is evident in those nurses deciding whether or not to deliver mental health care to individuals. Is it safe to provide the care without the training or expertise or does it improve care? There is no doubt that trained professionals are the best resource for individuals presenting with a mental health issue, however these are few and far between in these areas. Where mental health nurses are available it is during office hours only. Numerous nurses spoke of their concerns over their own personal safety (and that of the patient) when having to look after someone that the police or ambulance wouldn't take. Many stories were shared in which nurses felt intense stress and exhaustion in trying to provide a level of care that was commensurate with their belief about what the patient deserved.

7.6.2.4 Organisational culture

Organisational culture was commonly discussed amongst participants, portraying a low morale within facilities. This low morale caused by a negative organisational culture can, of course, not be generalised to all rural and remote areas, nor can it be said to be more or less extreme than in other geographical areas, as these were not explored. However, the findings from this study did report a high incidence of nurses perceiving that they worked in a negative organisational culture. Amongst the issues participants discussed were; perceived inappropriate leadership of facilities with people being promoted into positions which they were not suited for nor had the experience for **(belief)**. This led to nurses feeling unsupported in their role, low morale and poor standards of care **(behaviour)**. Subsequently nurses sought

support in other ways instead of from their managers who should have had the ability to provide such support **(action)**.

Some nurses did approach their managers to discuss poor standards of care, out of date care and inappropriate behaviour of staff **(actions)**, however this often increased their dissonance in other ways. Managers and other staff were not perceived to like to be challenged and there was a real concern regarding the reluctance of nurses in rural and remote areas to change their practice. Many of the more experienced nurses believed that their way of providing care was the appropriate way and they did not appreciate being challenged by less experienced nurses with their new ways of carrying out care based on newer evidence. This led to dissonance in the less experienced nurse knowing that they should be carrying out a procedure in a particular way based on evidence **(belief)**, yet being forced to comply with the way that it was being done at the facility in order that they would be seen to 'fit in' and not 'rock the boat' **(behaviour)**.

A lack of respect from many managers was perceived by participants who frequently stated that their managers had no idea of what they did or the austere conditions in which they work **(belief)**. This once again led to a low morale. The findings from discussions around this point demonstrated that, as much as nurses in such cases were trying to do their job and nothing over and above it **(behaviour)**, the self-expectation and the belief that the patient would suffer if they didn't, was too overwhelming. Thus, they ended up working over and above what they should have been **(action)**. Whilst decreasing one set of dissonances, others were once again formed.

Nurses believed that morale could be increased if there was more leadership within rural and remote areas. Nurses appreciated the difficulties that exist in recruiting staff, however they perceived that there was too much emphasis on having to fill vacancies, which were then filled with inappropriate people. Likewise, as a retention strategy, too many people were being promoted early to retain them, once again causing the same dissonances as discussed above.

In some instances, nurses did leave facilities as their maximum level of dissonance was reached, and they felt forced to comply with behaviours that were dissonant with their beliefs. They could no longer add any more cognitions to decrease it and as such took the decision to leave the organisation.

Within the negative organisational culture being experienced by participants, a situation that commonly presented was communication with medical staff. In particular, inexperienced nurses experienced worry and confusion as to when they could seek the support from medical staff. They were often firm in their belief that they needed to contact a medical officer to support them in caring for a patient either because of the acuity of the patient presentation or them having reached their maximum scope of practice **(belief)**. However, they were often forced to comply with the medical officer's instructions or organisational culture and not contact them **(behaviour)**. This usually occurred outside of hours. Nurses reported that when they overcame the dissonance and made the decision to abide by their beliefs and contact the doctor, they received unprofessional communication. As Festinger (1957) alludes to, this then provoked additional components causing dissonance in other ways. This result naturally then has a further impact on the decision that they take the next time that they need to contact the doctor.

Other more experienced staff who had built up a relationship with doctors didn't report this so readily with some of them having an agreement with the doctor that they would go ahead and treat a patient and then the doctor would sign any orders when they came in. As participants stated however, this was good when things went smoothly but would the doctors provide that support if something went wrong?

7.6.3 Voluntary and involuntary exposure to information

This third facet includes both individuals seeking out new information to aid in their attempts to address their dissonance, as well as deliberately trying to avoid seeking out information. These acts are voluntary, based on a decision by the individual to gain further cognitions.

However, dissonance can also be generated or further exacerbated through involuntary exposure to new information.

7.6.3.1 Education

The voluntary seeking out of new information to gain more cognition is a predetermined decision by an individual. This action was evident within the findings of the study in a variety of situations. One example is the nurse that feels unprepared for practice in the rural and remote environment **(belief)** due to inexperience, transition, CPD and scope of practice amongst many others. Nurses were vocal about feeling underprepared for practice in rural and remote environments and this was due to individual experience as a nurse as well as the complexities of the role and ensuring they remained upskilled. Dissonance was caused both when individuals did not have the knowledge and skill to undertake a particular task as well as a general feeling of under preparedness of what could happen during their shift. In the case of many of the participants within this study the dissonance motivated them to seek out new information. Participants regularly spoke of seeking help from 'Dr Google' or YouTube when they needed information immediately. When there wasn't the immediacy, this generally consisted of searching for training and other professional development opportunities **(action)**. Whilst these actions may well decrease the dissonance, they may also further increase dissonance and bring in more conflicting cognitions. Participants discussed finding courses and training opportunities that they wanted to pursue, however, they were then unable to attend the training due to financial or organisational constraints such as role replacement. The sense of dissonance was enhanced through knowing that an opportunity existed to enhance their skills but not being able to achieve this. For others that had the opportunity to attend training, they often reported that the context in which that training was situated was not appropriate to them. In these circumstances whilst they had gained new knowledge to apply to their clinical practice, they were then faced with having to contextualise that knowledge to an area which may only have two nurses rather than an entire MET team.

Continuing Professional Development (CPD) and the opportunities that rural and remote nurses have for education have been cited in the literature previously. This study has further contributed to the body of knowledge in this area as well as contributing new knowledge surrounding the changes in educational offerings in these areas. Rural and remote nurses consistently stated throughout Phase Two and Three that they need ongoing education and professional development to practise safely **(belief)**. Despite this, nurses shared many examples of undertaking tasks or working in situations in which they had received no training, expressing concerns as to their own safety as well as that of the patient **(behaviour)**.

For a few participants the dissonance experienced was so extreme they spent much of their free time seeking out information in an attempt to feel more in control and prepared for what their next shift would bring **(action)**. Nurses spoke of being scared about what might come through the doors next and whether they would be able to deal with it. This level of dissonance is not healthy and was affecting the nurse's general wellbeing.

Section 7.6.1.1 applied post-decision dissonance to the findings of this study regarding scope of practice. There was a group of participants when exploring scope of practice that experienced their dissonance prior to taking any decisions. Nurses when confronted with the decision whether or not to undertake a task which they knew to be outside of their scope of practice and therefore not within their role as an RN **(belief)** felt extreme discomfort (dissonance). These nurses attempted to ease their dissonance at the point of making a decision rather than after the event had occurred. Festinger (1957) asserts that modifying behaviour is easier than changing behaviour. Many participants wanted to stay working within their scope of practice **(belief),** so they sought out information to help them do this **(action)**. Thus, they looked at the protocols that they had available to them for a patient presentation that could be considered similar to their patient's. They then tweaked these protocols or guidelines to fit their purpose enabling them to provide the care that they knew the patient needed **(action)**. This was with the rationalisation that they were expediting care for the benefit of the patient **(action)**. Whilst it would be expected that this would not eliminate the dissonance

fully as they are still undertaking a behaviour that is not cognisant with their belief (otherwise they would not be attempting to modify their behaviour) their dissonance is reduced as they believe that they now have the reassurance of working within a policy to support their behaviour (albeit one that was not written for their particular patient).

In some cases, despite a nurse's attempts to seek out information this proved difficult to obtain with the nurse often not being aware that new information was even required to provide safe care. This was seen with the stories shared by the nurses that had asked midwives on transfer what they were required to carry out on the post-partum woman. Providing care on this basis was undertaken and it was not until the following shift that it became evident that many more checks should have been performed. In this case the reduction of dissonance then requires addressing after an event. The statement *'you don't know what you don't know'* was frequently heard during Phase Three interviews.

In addition to voluntarily seeking out information, participants also made a decision to avoid seeking out new information. The midwife that tried to teach the RN about the midwifery bundle in case it was required was met with resistance as the nurse felt *'that there would be no way she would be using the bundle* ***(behaviour)*** *so there was no point in her being shown it'* **(action)**. In applying the theory to this case, it could be argued that firstly the RN was trying to avoid dissonance as once the pack had been explained it could evoke further worry should she then have to use it. Likewise, the RN may not have wanted to be in a position where she was required to make a decision to act in a way that she knew was outside of her scope of practice, that of a midwife. In this circumstance however, it would be of interest to have seen what her post-decision dissonance might have been and whether she would have indeed wished that she could have looked at the bundle and sought out some information to have supported her in her practice had she of had to use it.

The findings discussed above focus on voluntary exposure i.e. the person seeks out new information or avoids seeking out new information. However, dissonance is also caused by

exposure to involuntary information that affects the individual through no action of their own. There are a variety of ways that this may happen; someone could be accidentally exposed to information, information could be gleaned as a by-product of looking for other information, the individual could be forced to listen to new information from others as it is so widespread that it cannot be avoided and finally new information can be gained through simple interactions with others. Each of these may cause dissonance to be enhanced along with the complexities of the individual's beliefs. In these circumstances normal behaviours are carried out to reduce the dissonance. In addition, defensive processes such as misperception and denial of the validity of the new information are put in place which prevent the new cognition from becoming firmly established (Festinger, 1957).

7.6.4 The role of social support

The role of social support in relieving or exacerbating dissonance is a common feature of the theory. This influence is also highly relevant to the findings of this study and the paradigm of social constructivism in which it has been framed. Social constructivism draws on knowledge being constructed as a result of an individual's social interactions and experiences with their world. Cognitive Dissonance Theory purports that an individual's social group is influential in the level of dissonance experienced between beliefs and behaviours (Festinger, 1957). Disagreements amongst individuals are not uncommon and dissonance does not always occur if individuals have numerous heavily weighted cognitions supporting their view. If, however, there is little weight to an individual's view and someone else puts forward an alternate viewpoint then dissonance occurs. Individuals within a group experience less dissonance if they know others within the group have the same views as them, compared to when their view is the opposing viewpoint.

Another factor within the level of dissonance manifested by others on an individual is when the person is of some standing or viewed as an expert. Within this study, many of the new graduates particularly spoke of their views being less valid than those nurses that were more experienced. Participants spoke of the resistance to any new ways of working being brought

to the facility with new grads no longer suggesting new ways of working for fear of being seen as ‘difficult’. In this case the power of wanting to conform, and the status of the person holding the opposing view, despite having many cognitions to support the behaviour, caused such extreme dissonance that to relieve this the nurses gave up trying to express an alternate way of working.

7.6.4.1 Vulnerability and wellbeing of self

This study has further contributed to the existing findings regarding the issues of burnout in rural and remote nurses. Whilst previous literature has discussed the issues of burnout the findings from this study demonstrate the vulnerability of nurses working in these areas, not only to burnout but from effects on their overall wellbeing. All of the Phase Three participants (n=20) reported to have had at least one episode of burnout which resulted in them taking a period of time away from work. This was in addition to the nurses reporting the feelings of extreme stress, worry and concern for their personal safety. It is important for an explanation to be provided to enable understanding so that factors can be implemented to address this and avoid further workforce issues.

Participants having experienced burnout could now recognise when they were at risk of it happening again, however before their episodes they didn’t realise how vulnerable they were. Nurses spoke of believing that they just had to keep going, that there was nobody else and it was some sign of failure if they couldn’t perform in the role and meet the responsibilities that came with it **(belief)**. As such, nurses continued pushing themselves to the limit, working in conditions which were not good for their wellbeing and eventually burning out needing, in some cases, considerable time off **(behaviour)**. Nurses rationalised the dissonance that they were feeling by telling themselves that ‘all nursing jobs are stressful’, ‘it’s the nature of the job’ and that ‘it would get better’ **(action)**.

With experience, however, participants spoke of the importance of their colleagues in overcoming the dissonance described above. Having the support of others and being able to

ask for help, to find nurses with the same beliefs and work ethic as them enabled them to see when they were vulnerable and work towards achieving consonance before burning out **(actions)**. By addressing the issue of negative organisational culture and seeing the importance in the social support of others within the team it is hoped that the vulnerability of these nurses can be reduced. Of course, not all nurses in these areas are working within a team and those sole practitioners who are on-call for up to three months at a time are extremely vulnerable. Fatigue management plans are in place and nurses were aware of their existence and what they contained. In the past, one participant had not followed the plan as she believed she needed to be in the area **(belief)**, she became burnt out and was away from work for some time to recover **(behaviour)**. She now follows the fatigue management plan to ensure that she takes the time off, appreciating the importance of it **(action)**. This is not without some dissonance, however, as she still believes that the community is better served by someone they know, so this is often managed by her staying in the geographical location *'should she be needed'* although not actually *'at work'*. Whilst not strictly following the fatigue management plan, her dissonance is effectively reduced to a manageable level.

Table 7.7 Illustrative example of the application of The Cognitive Dissonance Theory (Festinger, 1957) to selected findings

Dissonance	Example Finding	Belief	Behaviour	Action	
Post-decision dissonance	Scope of practice	"…[need to] stay in the guidelines"	*"…and a lot of times we have given drugs for a patient without the doctors' orders… outside of scope"*	*"You've got to… you know what's safe and what's not safe… I mean what do you do?"* Rationalising	QLD10
Forced compliance	Transition	*"A responsibility [to be left in charge] that I hadn't expected this early on in my career"*	*"I became the nurse in charge"*	*"I couldn't deal with it there anymore… I stopped working there"* Maximum dissonance reached	QLD45
	Health promotion	*"It's [the young people] the future, you know it's going to be the future of this area and so I'd love to be in there [delivering health promotion in schools]"*	*"we barely scrape the surface on what really primary health is… the person who's been working and really could do with our help doesn't even get a look in"*	*"time doesn't allow it, or I plan it and it has to be cancelled because someone comes in with, I don't know, an ectopic pregnancy"* Rationalising	QLD36
Voluntary & involuntary exposure to information	Education	*"important to upskill in the areas that I wasn't as 'au fait' with"*	*"I'm acting outside of my scope, I don't have the piece of paper to prove that I am competently capable"*	*"…trying to upskill and clinically prepare to work rural remote"* Seeking information	NSW11

				"I wasn't given a study day… that was out of this district, I have moved across this State" Maximum dissonance reached	
Social support	Medical support	*"baby's foetal heart… wasn't very good, it was showing that the baby was really struggling … [needed a] doctor"*	*"he [the doctor] refused to come in, he wouldn't come in and review… I was forced to step up… really had to step outside of what I would normally do because… no doctor support"*	*"I managed to get a second doctor… once I explained… he was very supportive"*	NSW20

7.7 Chapter summary

This chapter has provided a discussion of the study's findings. The advanced data analysis of the three phases of data collection through pattern matching has been presented. This advanced analysis demonstrated that the themes from the study can be applied across all phases of data collection. The study has also demonstrated that the empirical propositions generated match the theoretical propositions and can therefore be accepted. Internal validity and subsequent rigour of the study is evidenced.

Key findings from the study have been discussed in light of whether they support, refute, contribute further or make a new contribution to the body of research already available. The Theory of Cognitive Dissonance was applied to selected key findings to offer a new perspective on why nurses practice the way that they do in rural and remote areas. By using the lens of cognitive dissonance and social constructivism to view the findings from this study, several recommendations for future practice and further research can be delineated.

Chapter Eight now follows and concludes the study. The strengths and limitations of the study are discussed alongside the recommendations for practice and future research. The global relevance is presented. The researcher's own reflections on her personal learning journey throughout the PhD will be presented.

CHAPTER 8.CONCLUSION

8.1 Introduction

This thesis has presented a research study which delineated the current practice of rural and remote nurses working in QLD and NSW, Australia, and their preparation for such practice. The study's aim has been met through the application of a multiple exploratory case study research design. The researcher undertook the study through the lens of social constructivism in which an individual's views of the world are constructed based on their social and contextual experiences.

Three individual sequential phases of data collection and analysis were completed. This involved first, a document review analysed through content analysis. Second, an online questionnaire was analysed using content analysis. The third phase included interviews which were thematically analysed. Two rival explanations evolved at the end of Phase Two and in Phase Three these were accepted.

The chain of evidence was confirmed for most key findings across all phases. However, the findings surrounding the organisational understanding and support for the rural and remote nurse was not supported in Phases Two and Three. An alternative finding from Phase Two was however supported with the findings in Phase Three and thus became a chain of evidence. This finding related to recommendations for organisations to provide adequate resources, preparation and support for staff (such as orientation and opportunities for skill maintenance and preparation). This finding showed these recommendations are not being fulfilled. This is a significant finding as it shows the proposed framework for practice is not being efficiently implemented or is ineffective.

The Theory of Cognitive Dissonance (Festinger, 1957) was applied to aid explanation of the findings that described nursing practice in rural and remote areas. This final chapter of the

thesis will now highlight the implications of these findings for future practice, education, organisation and policy, as well as future research. The strengths of the study will be presented. As with any study, limitations became apparent, not least due to the constraints that come with the scale of a PhD and these will be discussed. The chapter will conclude with a personal reflection of the PhD journey and bring the thesis to a close.

8.2 Research question

This study set out to answer the following research question:

> What is the practice of Registered Nurses working in rural and remote areas of Australia?

8.3 Strengths of the study

This study has a number of strengths:

- The use of the framework of Yin (2014) from design through to preparing the final thesis, has achieved a high level of rigour.
- Research questions of ‘how’, ‘why’ or exploratory ‘what’ questions enabled the researcher to explore the contemporary phenomenon of rural and remote nursing practice.
- Nurses who had in the past worked in rural and remote were excluded, staying true to the contemporary nature of this study.
- This study occurred in its natural setting, preventing the researcher controlling the nurses’ practice in any way.
- Having never worked in rural and remote nursing practice the researcher did not bring any of her own biases to the findings.

- The multiple-case (embedded) design used provided a robust study compared to a single case study. This is evidenced by the researcher obtaining 24 separate Site-Specific Applications (and/or manager approvals) (Appendix J) and Australia-wide ethical approval. This was a considerable task, with many different requirements for each organisation. Whilst generalisations cannot be made for the whole of Australia, the multiple-case study design has been able to demonstrate replication in the majority of findings between cases providing greater rigour to make recommendations for both Australia and other countries with similar geographical size.
- Multiple sources of evidence were used with the final convergence of all data findings providing significant strength to this study through enhanced internal and external validity (Yin, 2014).
- Cross-case analysis to converge all lines of enquiry of the three different phases was completed.
- Rigour was achieved through a chain of evidence and rival explanations (accepted or refuted).
- The researcher ensured that the original case study protocol was adhered to and updated as the study progressed so that an external individual could replicate the study.
- A case study database was established and maintained to keep track of the large amounts of data generated.
- The researcher maintained a reflective journal (audit trail) throughout the study which ensured that decisions taken, and conclusions drawn were questioned for potential biases or suitability for category coding for example.
- The size of this study reflects a significant representation of the Australian context of vast rural, remote and very remote locations.
- Findings matched the theoretical propositions that were made during the design phase in claiming their acceptance.

The fourteen strategies contributed to the high level of rigour demonstrated in this study, achieving construct validity and reliability (Yin, 2014). This thesis is an exemplar of a rigorous multiple-case (embedded) study within nursing. Additionally, this study makes a significant contribution to nursing knowledge with the use of the Theory of Cognitive Dissonance (Festinger, 1957) as it is used to explain the behaviour and decision making of nurses.

8.4 Limitations of the study

In considering the outcomes of this study it is important to also present its limitations. Limitations to the study include; inability to generalise the findings to all nurses as this study only represented two states of Australia; the differing sample size between the two states; and access to all nurses such as Nurse Practitioners was limited (only two participated).

Whilst the study findings are not generalisable to other States and Territories across Australia or other countries, findings may be transferrable. As other States and Territories across Australia have their own policies, practice guidelines and support mechanisms in place, findings to be implemented outside of NSW and QLD should be applied with the particular State or Territory context considered. Despite a good representation across QLD, NSW facilities were not as well represented, and as such, workforce planners may want to consider replicating the study on a larger scale to include all Local Health Districts and a variety of facilities.

One limitation of the study that could have introduced a level of bias was in how the nursing staff were accessed. The researcher only had access to potential participants through the communication via the Executive Directors of Nursing (EDoN). It was not known to the researcher whether the EDoN had made contact with nurses regarding the study and whether this contact had been made with all nurses or a select number.

Despite these limitations, findings were consistent throughout both of the cases (NSW and QLD). These findings suggest that organisations should consider workforce provisions within their individual areas and begin conversations across the wider health district/health service.

The study set out to explore the role of the NP in rural and remote settings, however there was only representation by two NPs in Phase Two and one in Phase Three of the study. Thus, these findings were not considered as part of the final analysis due to poor representation and the risk of making assumptions. This is an area, however, worthy of future research.

During the final stages of this study in 2018 significant changes were made to the Code of Professional Conduct for Nurses (NMBA, 2008a) replacing it with the Code of Conduct for Nurses (NMBA, 2018). In addition, the adoption of the International Council of Nurses Code of Ethics for Nurses in Australia (International Council of Nurses [ICN], 2012) replaced the previous Code of Ethics for Nurses (NMBA, 2008b). These new documents have a greater emphasis on elements of a nurse's cultural practice. The effectiveness of these new codes in emphasising the importance of cultural practices has not been captured within this research and may be an area for future work.

8.5 Study implications and recommendations

In addition to the discussion provided in Chapter Seven, a number of implications and key recommendations will now be presented. These implications and recommendations will be presented under separate areas of practice, organisation, and education. Many implications and recommendations fall under more than one of these areas and as such table 8.1 illustrates the connections between the three areas and the recommended changes at the policy level.

Table 8.1 Implications and study recommendations

Implication	Recommendations			
	Practice	**Organisation**	**Education**	**Policy**
Increased stress and burnout caused by increasing workloads. In turn leading to suboptimal care and safety.	Encourage the use of **critical reflection,** including feelings and beliefs and how these relate to practice decisions. Subsequent reduction in decreased stress and improved overall wellness. Maintain a **reflective practice diary**, particularly when the nurse works in isolation as an audit trail and as a learning tool.	Allow staff time to undertake critical reflection individually or as a group. Organisations need to be open to practice issues requiring improvement. **Coping and resilience training** to be incorporated into orientation programmes.	Nurses need access to ongoing critical reflection training.	Policies to be put in place to allow nurses to **network** with each other in person or via telecommunication strategies to support critical reflection and practice improvement. This is paramount in those areas in which nurses work in isolation.
Inadequate support and networking opportunities.	Nurses to have clear avenues to seek out mentors with whom they can critically reflect, question practice and address conflict.	Encourage **mentoring** relationships within and outside of the organisation.		**Clear lines of communication** to be available to ensure nurses know where to receive support at particular times.
Currency of practice.	Use of critical reflection to encourage questioning of practice.	Provide **support** to nurses in changing practice as new evidence arises	**Training** must be provided to ensure nurses' practice is in line with new evidence.	Policies to be updated to reflect current evidence and to be communicated to nursing staff.

Professional identity & accountability.	Use of critical reflection to encourage questioning of practice and not simply compliance with existing practice that is outdated.	Organisations to have regular opportunities to debate current practice.	Nurses need help in developing **emotional maturity** to question practice and thoroughly assess situations.	
Scope of practice.	Individuals have a responsibility not to **endorse** practice that is outside of scope of practice. Nurses need to critically reflect on their actions including their beliefs and feelings in deciding to work within or outside of their SOP.	**Clear lines of communication** to be provided by the organisation for nurses to remain working within an appropriate SOP. Organisations/managers to ensure an **awareness** of the work of the RN. To avoid assuming nurses will deal with all that is thrown at them. To provide sufficient education and training to ensure nurses are **adequately prepared** to be undertaking their role(s). Communities to be educated regarding the abilities of health care practitioners to avoid **inappropriate expectations**.	Ensure nurses are educated sufficiently to be **competent** in the tasks that they are undertaking.	**Legal frameworks** easily accessible to staff.

		Ensure nurses are **fit for purpose.**		
Negative organisational culture including poor leadership and change management.	Clear **pathways to progression** need to be in place.	Ongoing support provided to nurses in leadership positions. Ensure nurses in leadership positions are fit for purpose. To ensure those in leadership positions have an **awareness** of the work of the RN. Ensure **expectations** of staff are suitably aligned to the RN role. Promote better **working relationships** between medical staff and nurses.	**Metropolitan organisations** to be educated on the role of the rural and remote nurses and conditions in which they are working. Encourage **rural/metropolitan exchange programmes**.	Clear **attributes** necessary for particular roles to be documented with **recruitment** to such roles in line with these.
Provision of PHC.		**Review of the role of the AHW** is required to enable RNs to undertake true PHC.		**Review of workforce requirements** to be undertaken in line with health care provision rather than population numbers.
Sense of belonging.	For all nurses, but especially sole practitioners to become **part of the community**.	Provision of **orientation and induction** of new staff.	Sole practitioners to develop their **emotional maturity** in dealing with the role and	

		Preceptorship, mentorship and clinical supervision programmes to be provided. The use of **videoconferencing** may provide opportunities for networking, collaboration and learning Organisations to **tap into experiences** that nurses bring with them to promote a feeling of being valued.	managing their own self-care. **Inter-professional critical reflection** to be undertaken amongst sole practitioners.	
Cultural safety/awareness.		Organisations to encourage and mandate attendance at **cultural training**.	Nurses supported and coached/mentored through any **culture shock** experienced to foster personal growth and sustain workforce. Provision of **training** for nurses to explore their own knowledge, biases etc.	Clear policies regarding **cultural care and education** to be in place and accessible to all staff.
Preparation.			RNs require preparation in **maternity and mental health** care. This should extend beyond clinical skills.	A **review of the contextual elements of the RIPRN** course needs to be undertaken alongside the proposed undergraduate medicines training.

			MEC to be undertaken as part of a development programme. Education to be provided **face-to-face** and not just online, where possible, to gain group reflection and learning. **Contextual consideration** is necessary prior to enrolment on courses. Post-registration **contextual education/training** will need to be developed to ensure adequate preparation for the prescribing role of the RN	
Replacement of staff.		Organisations to consider how staff will be replaced when attending PD.	Review of the role of the **CNE and NP** in provision of onsite face-to-face education which may address the replacement of staff as there would be a reduction in time taken as no travel is involved for the RN staff. Consideration of **rural/metropolitan exchange programmes** allowing staff to receive	**PD policies** to be adhered to.

			training whilst ensuring staff numbers remain consistent.	
Transition shock.	Clear **pathways to progression** need to be in place. Nurses to be taught and encouraged to carry out **critical reflection** to decrease stress and improve their overall wellness.	Provision of **orientation and induction** of new staff. **Preceptorship, mentorship and clinical supervision** programmes to be provided. **Clear lines of communication** to be provided by the organisation for nurses to remain working within an appropriate SOP.	To provide sufficient education and training to ensure nurses are **adequately prepared** to be undertaking their role(s).	A review of the appropriate **length of experience** necessary to work in rural and remote areas needs to be undertaken.

8.5.1 Recommendations for practice

Two key recommendations for practice are presented, the need for critical reflection and the ability to question practice and not comply.

8.5.1.1 Recommendation One: The need for critical reflection

The study findings demonstrated that nurses were carrying the heavy burden of dissonance daily in their working lives. Participants described high levels of stress caused by on-calls, staffing levels, negative organisational culture, overtime, unrealistic expectations from managers, community and metropolitan facilities, bullying and harassment, level of responsibility, lack of resources, a lack of access to professional development, social and professional isolation, safety and medico-legal concerns. This stress has been highlighted to affect not only an individual's wellbeing but also the wider organisation threatening the care and safety of patients (Crane, Bayl-Smith & Cartmill, 2013). The work of Festinger (1957) began a school of thought that moved away from behavioural motivation, whereby an individual seeks reward or avoids punishment towards showing that individuals are more motivated through achieving peace of mind. Without this peace of mind, moral distress occurs (dissonance) caused by ongoing moral and ethical conflicts. To achieve this peace of mind it has been recommended that individuals take responsibility for the self-correction of their actions and performance through critical reflection (de Vries & Timmins, 2016). de Vries and Timmins (2016) argue that nurses are no longer undertaking critical reflection, or that their reflection is based on actions rather than incorporating their feelings and beliefs. This study also supports this claim.

This study has shown that critical reflection is a practice which is not firmly embedded either formally or informally into the practice of the RNs in this study. Indeed, some practitioners do not have colleagues to facilitate debriefing of any kind. The decreased opportunities evident in this study for networking also exacerbates this problem. Thus, this study recommends that organisations have a responsibility to provide their staff with time to undertake this critical reflection, to help nurses move from trivialising and providing justifications, and for

organisations to be open and receptive to practice improvement needs. In addition, it is recommended that nurses should be encouraged by organisations to maintain a reflective practice journal to aid in their own independent critical reflection, particularly in those areas in which nurses have less opportunity to debrief with others due to their isolation. Nurses may need to be taught how to recognise and change their ways of dealing with dissonance, to become aware of their own expectations of what they are able to and should be carrying out. This may be achieved through formal training programmes that focus on coping and resilience as part of orientation to a facility.

8.5.1.2 Recommendation Two: Question not comply

The second recommendation put forward in this chapter follows on from critical reflection above and argues that nurses need to seek the support of others more regularly to enable discussion to occur regarding practice and the potential for poor care. Chapter Two and Seven discussed the focus that has been present regarding mentorship programmes for nurses, however it was not apparent through the participants in this study that mentorship was in place. It is recommended that nurses are encouraged to seek out a mentor with whom they can build a trusting relationship to be able to critically reflect, question practice and pursue resolution to existing conflicts. Where face-to-face mentorship may not be possible, an online mentoring system or clinical supervision group may be established to encourage nurses to question the way that they as individuals or the organisation is working and to challenge practice. This recommendation is not only made for those nurses new to rural and remote practice but also the large number of nurses that have been in practice for extended periods. It was this group of nurses that were reported by many participants in this study to have become stagnant in their practice, no longer questioning the way that they work or having a willingness to change practice.

The researcher argues that when critical reflection is not undertaken and practice is not questioned, such practice becomes the norm, resulting in an increased risk of poor care being delivered. Indeed, work by Stenhouse, Ion, Roxburgh, Devitt and Smith (2016) warns of the

risk of suboptimal care through the lens of philosopher Hannah Arendt. Stenhouse et al. (2016) argue that individuals become so engrossed in the day to day demands, they are no longer able to see the real purpose of their role. This occurs as a result of the situation in which the nurse finds herself, but predominantly due to the nurse's failure to truly reflect on her actions and omissions, once again highlighting the importance of critically reflective practice.

Nursing has strived hard to be seen as a profession in its own right, to no longer be viewed as the 'handmaidens' to the doctor but as a group that carries out practice based on a body of evidence and is accountable for its own decisions and actions. Within this study there was a strong sense amongst nurses of compliance with existing care standards or the word of others, despite nurses often holding the belief that their actions should be different. Thus, this next recommendation made by the researcher is that nurses must be encouraged to question and not comply. Nurses working in rural and remote areas are accountable practitioners and whilst all nurses are, this study has demonstrated that rural and remote nurses do have a unique set of roles and responsibilities not seen in larger metropolitan areas, resulting in a unique context of rural and remote practice. Regardless of the complexity of this context, nurses need high levels of emotional intelligence to be able to question their practice and make a thorough assessment of the situation in which they find themselves, rather than conforming to a colleague, group or organisations' way that may be against best evidence or that of the regulated nursing profession. Out of date practice by some nurses was a frequent statement that arose in this study, with nurses often feeling unable to question this for fear of reprieve. Nurses must in these situations question and reflect on evidence rather than continue the same infractions over and over again, in some instances denying any personal responsibility and accepting suboptimal care. This is critical due to the individual's professional accountability. Organisations have a joint responsibility with individuals to support them in changing their practice as new evidence arises, to provide adequate training and support for ongoing learning. It is only through this constant questioning of practice that a nurse will achieve the advanced level knowledge/thinking that was so often spoken about as being a

necessity for the rural and remote nurse, and for nursing to be seen as a profession in its own right. Some nurses participating in this study were achieving this well, finding ways of modifying and adapting their practice.

Nurses will need to receive the appropriate support to help them assess the limits to which they should work. Participants expressed a need for better legal frameworks to be in place to guide them in remaining within an appropriate scope of practice. However, the researcher argues that the legal frameworks are in place, it is enacting them that is not currently happening in a consistent manner. Many organisations do not have sufficient monitoring of what nurses are undertaking, many managers having no idea of the roles, responsibilities and scope of practice of their nurses. Policies and guidelines need to be in place with clear lines of communication so that nurses know who to contact and when, without negative repercussions as a result. There is a joint organisational and individual responsibility; organisations must stop assuming that nurses will manage anything that is thrown at them, but individuals must also stop allowing it to happen, and as a result endorsing the practice. Likewise, communities need to be educated regarding the roles of their health care practitioners. Continuing to work in partnership with communities cannot be overemphasised, not only to provide the most effective health care but also to address and aim to manage community expectations at a level which is commensurate with the nursing role.

8.5.2 Recommendations for the organisation

The findings from this study inform three organisational recommendations. The first concerns eliminating negative organisational culture, the second to promote a sense of belonging and finally to address cultural safety and cultural awareness.

8.5.2.1 Recommendation One: Organisational culture

Many recommendations can be made regarding the negative organisational culture apparent within this study. There were limited managers participating within this study, therefore these recommendations are based predominantly on the clinical RNs' views. The first

recommendation is for clear pathways to progress to different positions within rural and remote areas. Promotion occurring in an arbitrary manner leading to issues around inappropriate leadership, change management, and the continuing support of staff working in these environments were constant perceptions shared by the participants in this study. Whilst retention of staff is important, it is more important to have staff that are fit for purpose in the role that they are in.

The second recommendation for organisations is for managers to gain a greater understanding of the austere conditions and work that the rural and remote nurse does. According to the participants, some managers were supporting staff, whilst others perceived their managers had limited or no understanding of their nurses' roles and responsibilities. This has led to inappropriate expectations of their staff. The other perception that participants had was about the organisations themselves. The participants believed that metropolitan organisations also displayed a misperception about the roles of rural and remote RNs. This study recommends that such organisations should gain a better understanding of rural and remote health care facilities and the abilities of nurses to improve the teamwork between the two sites. One way to improve teamwork and respect as well as aiding skill development for all nurses could be through rural/metropolitan knowledge transfer and skills exchange programmes. It is understood that, at the time of writing, this thesis that QLD Health are evaluating a trial of a nursing and midwifery exchange program. This evaluation is likely to further extend the research findings of this study.

There are two situations which will contribute to an inadequate health service delivery if not addressed. The first is the inability of some nurses to fulfil their roles within the PHC framework in which their organisation is situated. The second is the need for a suitable workforce which considers factors such as location, demographics, health needs of the community, and the level of acuity of patients. Level of acuity compared to the level of skill available at the health service receiving the patient should be considered before transferring patients to rural and remote areas to enable appropriate and safe care.

It is recommended that two roles in particular are evaluated. Firstly, the role of the AHW appears to vary considerably. The support that AHWs can offer nurses within individual organisations needs to be looked at with clear role descriptions and structured career pathways. Secondly the utilisation of Nurse Practitioner roles should be considered. This study found a sample of nurses that appeared willing to undertake NP endorsement so that they could work within a role that would expedite patient care. However, nurses were not enrolling in courses, primarily because there are no roles available on completion (other factors such as self-funding were also reported in this study). If organisations could fund more NP posts, a contribution would be made not only to the provision of expert and timely care but also a mechanism of support and education for nurses.

8.5.2.2 Recommendation Two: Promote a sense of belonging

One way in which nurses will have the confidence to question practice is by achieving a sense of belonging in an organisation. Indeed, Levett-Jones and Lathlean (2009) wrote that the better the nurse's sense of belonging, the more likely they are to challenge. Of course, the importance of belonging is not only to give the nurse confidence in questioning practice, it is also essential so that they become part of the team or the community and achieve a sense of comfort in their role. This sense of belongingness, the researcher believes will contribute positively to retaining the rural and remote workforce. It is therefore crucial that organisations take the time to orientate and mentor new staff and support them in their transition to the rural and remote environment, despite the amount and type of previous experience they may arrive with. Managers need to tap into the experience and strengths that nurses bring to a facility so that they are provided with an environment to work in in which they feel valued and lifelong learning is encouraged.

It is recognised that for many nurses that are either sole practitioners or have a constant change in medical staff, for example, that achieving a sense of belonging is difficult. From this research, it is evident that nurses need to develop emotional maturity to assess what it means to be a sole practitioner and find ways to manage their own self-care. In all areas,

organisations need to prioritise the orientation and support of staff and address any negative organisational culture to improve employees' sense of belonging. In addition to the wider health care team, this research has demonstrated the necessity to become part of the community in which the nurse lives and works. When nurses work as sole practitioners it is often the community that becomes the support network for the nurse. The premise of critical reflection being undertaken inter-professionally could be of considerable benefit to the nurse in addressing team relationships, critical reflection and professional development.

8.5.2.3 Recommendation Three: Cultural safety and cultural awareness

One of the significant areas of rural and remote nursing practice explored within this study was the cultural needs of their communities. For nurses to begin to feel accomplished in providing culturally safe care this study recommends that nurses look past the short-term situation. In the short term, nurses demonstrate high levels of stress caused by trying to work effectively within an unfamiliar culture. Authors have recognised the positive value of nurses experiencing culture shock (Dongfeng, 2012), and the researcher proposes that these feelings foster personal growth and cultural competence in the long-term.

Cultural competence cannot be achieved until individuals are supported in undertaking self-assessment of their own cultural safety. It is recommended that organisations provide the appropriate training to allow nurses to explore their own beliefs and biases in order that attitude change can take place (Tanner, Agius & Darbyshire, 2005). Vital resources need to be put in place to reach this goal so that nurses are helped to achieve their full potential in providing culturally appropriate care to individuals that are already experiencing health disadvantages. It is proposed that if nurses are given the support required to work within unfamiliar cultures, their levels of stress will be decreased and ultimately retention of nurses will be enhanced.

8.5.3 Recommendations for education

The final recommendations from the study highlight the need for effective education provision to retain staff.

8.5.3.1 Recommendation One: Educate to retain

This study recommends that more attention needs to be paid to preparing RNs for those roles that would normally be undertaken by an appropriately trained healthcare professional in a larger area. In particular, nurses need to be prepared to be able to assess and manage both mental health and maternity presentations. These two presentations were seen in this study to be a source of great anxiety for nurses, contributing to their decision to stay working within an organisation or to move to a larger one. The MEC course was evaluated well by those nurses that had undertaken it and therefore it is recommended that all rural and remote nurses undertake this course to gain not only the theoretical understanding but also the practical skills in a simulated environment.

Where mental health education was provided, it was online. This study argues that to fully engage participants in an area that they may not be interested in, or are apprehensive about working in, this education needs to be provided face-to-face. This would give participants the opportunity to work through a variety of common scenarios through role play and equip them with the practical skills that they want and more importantly need to deliver effective, safe care.

Participants focused on the need for education to successfully manage clinical presentations. The researcher, however, recommends that education around the roles of mental health, midwifery and other AHPs should extend beyond those clinical skills and extend to educating nurses about professional aspects of these roles, and networks. By providing this broader insight into the roles that would usually be fulfilled by other professionals, it is anticipated that nurses will not only function more fully within the role but will also feel more supported in that role.

There is a need to review the education and training of rural and remote nurses and the way in which it is delivered. Generally, the online medium has not been reported as effective when nurses require skills or technical training such as undertaking assessments. Nurses want face-to-face delivery of material, not only from the view of effectiveness but also for the opportunity

to network with other nurses. This ability to network cannot be overemphasised. Contextual courses, need to be delivered locally, allowing nurses to develop skills whilst networking with others.

Of course, with recommending more face-to-face preparation for nurses working in rural and remote areas, the issue of their replacement whilst they attend is raised. Until an appropriate workforce is achieved this issue will remain. Perhaps it is therefore time to invest in the development of our current rural and remote workforce to ensure that they are appropriately prepared, have the opportunities to maintain their skills, to achieve a sense of belonging and ultimately retain them within the organisation. The short-term issues that will be incurred are noted, however organisations need to think long-term, as in ten years' time when shortages in the workforce are expected to be at a critical level and there is a loss from retirement of highly experienced nurses in this region, the situation will be a major problem. Rural/metropolitan exchange programmes could prove to be an effective way of managing staff replacement.

This study has demonstrated the value of the RIPRN endorsement for the practice of rural and remote nurses. There is great value placed on this course and the contextual knowledge and skills that it provides for attendees. The course is valued for more than its medicines management content; it teaches nurses to be able to carry out a comprehensive assessment that is a crucial foundation for clinical decision making in the absence of medical staff. Whilst it could be argued that it is time for undergraduate curricula to follow in the footsteps of international colleagues and allow nurses to administer medications within protocol, it is also argued that the provision for preparation for this role within an undergraduate curriculum will not prepare rural and remote nurses in the same way as the RIPRN has done.

This study has not explored the level of exposure to rural and remote education as part of the undergraduate curricula and this is an important area for future research. Participants within this study, however, spontaneously reported undergraduate preparation of the nurse as

insufficient in its exposure to the rural and remote context, both theoretical and practically. Thus, until such a time comes that students are taught prescribing by protocol within the unique context of rural and remote nursing, it is recommended that a further post-registration educational package is provided which will enable nurses to make treatment decisions within the context of rural and remote Australia.

8.6 Recommendations for future research

Whilst this study has revealed a number of implications and subsequent recommendations for the practice of rural and remote nurses, it has also revealed a number of opportunities for future research. This section will now discuss these.

In line with the limitations outlined in section 8.4, a replication of the study nationally incorporating larger sample sizes and improved representation of different facility levels would be beneficial to generalise the results.

This study highlighted the change in health service delivery and the impact that this has on the practice of the RN. Further research into the exact impact that this is having on nurses both in relation to their health and wellbeing as well as a nurse's ability to fulfil all dimensions of their primary health care role is an important area of research. This work would contribute to further developing strategic health service models and future workforce planning.

The continuing professional development needs of rural and remote nurses has been a feature of the nursing literature for some time. The increased use of the online platform for the delivery of education is in itself an area for future research. Importantly for this study are the findings that with this change in how education is delivered comes a decrease in the networking, debriefing and collaboration opportunities available to rural and remote nurses. One of the theoretical propositions put forward at the beginning of this study was that nurses collaborate and network to support each other in their practice, however this is not always the case with

many nurses feeling at a loss without the collegiality and opportunity to network with fellow rural and remote nurses. The impact that this absence has on the support of nurses and their overall sense of health and wellbeing is an area that future research should focus on.

One of the major findings of this study and implications for the future workforce was that of the level of experience that nurses working within these rural and remote locations should have. In addition to the number of years of experience the type of experience in relation to metropolitan, remote or other was also seen to be important. This area is one in which further research would be deemed essential. With the aging nursing population nearing retirement and the acknowledgement of the likely shortage of nurses in the next ten to 15 years, research into suitable recruitment needs for rural and remote will be essential. Additionally, research into transition could lead to positive retention rates, reduced rates of burnout and fewer adverse clinical events. Transition to rural and remote practice programs should be designed and implemented to not only aid a smooth transition to practice but to also promote working in these areas to the wider population.

Cognitive Dissonance Theory (Festinger, 1957) opens doors for further research into strategies that may help nurses manage dissonance when faced with conflicting and challenging situations, particularly when tasked with potentially working outside of their nursing scope.

The final recommendation for future research is to explore the effectiveness of cultural awareness programmes designed and implemented amongst rural and remote nurses and the role of the AHW within the health care facility and communities. The role of the AHW was established to support RNs within communities and enable care amongst the community, however the role is often problematic for those holding them, with conflicts arising between their role and their place within their community.

8.7 Situating the study globally

Countries with rural and remote areas may benefit from the findings of this study even though the study was undertaken in Australia. A number of general recommendations are provided that are transferrable to other countries regardless of specific context. As such, the researcher carried out a further search of the international literature in relation to the study findings. This search focused on Canada and the United States of America (USA) as it is these two countries that are most similar to Australia's rural and remote landscape. Whilst the research focused on rural and remote nursing, it may have useful findings for other countries. It is important to note the inconsistent definitions of rurality and the absence of differentiation between rural and remote areas, alongside the differences in health care services. A direct global comparison should be carefully considered (Bowman & Kulig, 2008; Moules, MacLeod, Thirsk & Hanlon, 2010). Indeed, the definition of rurality that predominantly features within the Canadian and American literature is that of population numbers (Montour, Baumann, Blythe & Hunsberger, 2009). This is somewhat different to the Australian literature and in particular this study which used a classification system that classified areas according to accessibility to goods, services and opportunities for social interaction.

Despite the differences in definitions, Canada is the closest to mirroring Australia in relation to rural and remote geography. It is also apparent that the research around rural and remote nursing in Canada is producing very similar results to the Australian research and indeed this study. A national survey of nurses working in rural and remote communities in Canada collected data across 2014-2015 (MacLeod et al., 2017). The demographics in relation to gender, age and time working in rural and remote nursing were similar to the results across the two Australian States in this study. Canada are also experiencing great concern over the large numbers of rural and remote nurses due to retire in the next ten years, leaving a gap in experienced nurses in the workforce (MacLeod et al., 2017; Gagnon et al., 2011; Stewart et al., 2011). Whilst suggestions are gradually being put forward to address this situation in the Australian workforce, approaches within Canada appear more proactive. In Ontario, two

initiatives have been introduced as a strategy to address workforce concerns. Firstly, the Late Career Initiative enables nurses that are near retirement to participate in projects away from the patient's bedside that will both support junior nurses and also improve care at the facility. The Late Career Initiative enables senior, experienced nurses to be kept in the workforce without the physical and emotional stress associated with being 'clinical'. Nurses work on projects such as writing clinical guidelines or practice policies. The second initiative instigated in Ontario is the New Graduate Guarantee. The New Graduate Guarantee aims to ease the transition of new graduates through utilising government funding to enable new graduates to work for up to six months in a supernumerary capacity with extensive mentoring support (Montour et al., 2009).

Initial evaluations of these initiatives are positive; however, they were carried out in urban facilities (Montour et al., 2009). When implemented in rural and small community hospitals, the Late Career Initiative in particular came across issues with nurses having to be pulled off of special projects to work clinically due to nursing shortages. Despite these issues, based on the results of this study, initiatives such as these can be seen to provide Australia with a starting point in addressing the workforce shortages.

Participants in this study shared strong views that new graduate nurses should not be working in rural and remote areas. It also demonstrated the huge transition shock experienced by nurses and the need for ongoing preceptorship and support. Through programmes such as this, nurses could ease their transition by working alongside an experienced nurse, receiving support and development. The advantages of working in a supernumerary capacity may take away much of the stress and burnout currently being experienced by nurses, giving them the time to be nurtured and to grow within the rural and remote community in which they work. In the Australian context, however, receiving financial support from governments to trial this may prove a long journey. The research originating in the USA is similar in noting the difficulties of recruiting and retaining rural nurses (Molanari, Jaiswal & Hollinger-Forrest, 2011; Molinari & Monserud, 2009).

One of the key findings from this study was the nurse's inability to network with others and in the study the link was made between transitional stress and the ability to network. There is a wealth of literature highlighting the stress caused by transition to practice and amongst the recommendations for improved orientation and preceptorship programmes is the use of telehealth. Participants within this study only discussed their use of telehealth as a medium via which they could carry out consultations with specialists and other AHPs located in different centres. Studies in Canada and the USA, however, have noted the benefits to using telehealth as a way of connecting nurses, allowing them to support and learn from each other (Baernholdt, Jennings, Merwin & Thornlow, 2010; Gagnon et al., 2011; Sevean, Dampier, Spadoni, Strickland & Pilatzke, 2008). The opportunity for Australian nurses to network in this way, provide support to one another and undertake critical reflection on practice would seem an attractive option to supporting nurses in these areas. It is anticipated that this in turn would lead to an increased job satisfaction and a decreased turnover of staff (Andrews et al., 2005).

A study undertaken in the USA by Bratt, Baernholdt and Pruszynski (2014) compared the outcomes in relation to job satisfaction and job stress amongst nurses undertaking an urban residency program and a rural one. They concluded that rural nurses at the end of the programme experienced greater job satisfaction and less job stress than their urban counterparts. One explanation put forward for this was that the programme gave rural nurses the opportunity to increase associations and links with colleagues and the community throughout the programme. When working in small organisations, these opportunities may be less frequent, thus the authors link this collegiality and acceptance by the community as enhancing job satisfaction (Bratt, Baernholdt & Pruszynski, 2014).

The links to the importance of the community and understanding community culture were highlighted in this study and the research from the US supports this (Baernholdt et al., 2010; Molanari et al., 2011**;** Molinari & Monserud, 2009). One of the key findings of this study was that nurses often felt that they were delivering suboptimal care to patients due to not having a full understanding of their culture. A study by Molanari et al. (2011) made links between greater

job satisfaction and cultural self-efficacy which supports the findings of this study that the stress of feeling not culturally competent affects job satisfaction and in turn the retention of staff. The length of time taken to integrate into and be accepted by many of the communities in which participants worked has been presented within this thesis. Molanari et al. (2011) in their study looking at lifestyle preferences and recruitment and retention of rural nurses recommended the use of community leaders being involved in the recruitment processes of nurses. This would enable the potential nurse to gain clearer perceptions by finding out more about local opportunities for recreation as well as the community feeling like they have an influence over who they have chosen, leading to quicker community inclusion of the nurse.

Other areas in which Canada and the USA are experiencing the same issues as reported in this study, to varying degrees, can be seen in Table 8.2. Much like Australia, there is much research reporting similar issues, yet at this point in time, no clear solutions are seen. One example is the variety of education programmes that have been provided, which in the main are evaluated well. However, access to them remains the issue which comes down to workforce constraints. It is the global workforce issues of recruitment and retention that need to be solved in order for all of these other initiatives to fit in. The researcher argues that it is the long-term issues that Australia's attention needs to be turned to in addressing the stress on our rural and remote nursing workforce. This research has demonstrated that other countries have similar issues and as such collaborative research should continue to explore ways in which these situations can be addressed.

Table 8.2 Similar findings found in Canadian and USA literature and example references (2000-2018).

Findings	Example Reference(s)
Difficulties in maintaining professional and personal boundaries	Andrews, Stewart, Pitblado, Morgan, Forbes & D'Arcy (2005); Moules et al. (2010)
Reduced mental health services and the effects on nurses' wellbeing	O'Neill (2010)
Professional and physical isolation	Andrews et al. (2005); O'Neill (2010)
Transition stress	Banner, MacLeod & Johnston (2010); Molanari, Jaiswal & Hollinger-Forrest, 2011
Importance of culture and community	Baernholdt et al. (2010); deValpine (2014); Molanari et al. (2011); Molinari & Monserud (2009); Moules et al. (2010); Stewart et al. (2011); Vukiic & Keddy (2002)
Working beyond scope of practice	O'Neill (2010)
Lack of professional development opportunities that are context specific and easily accessible	Andrews et al. (2005); Hendrickx & Winters (2017); MacLeod et al. (2008); McCafferty, Ball & Cuddigan, (2017); Molanari et al. (2011); O'Neill (2010); Pearson & Care (2002); Stewart et al. (2011)
Recruitment and retention issues	MacDowell, Glasser, Fitts, Nielsen & Hunsaker (2010); MacLeod et al. (2017); Molanari et al. (2011); Molinari & Monserud, (2009); Stewart et al. (2011)
Horizontal bullying in the workplace	Blackstock, Harlos, MacLeod & Hardy (2015)
Additional stressors on sole practitioners	Andrews et al. (2005); O'Neill (2010)
Training for telehealth/telehealth for education	Baernholdt et al. (2010); Gagnon et al. (2011); Sevean et al. (2008)

8.8 The researcher's learning journey

Through undertaking a PhD researching rural and remote Australia the researcher has gained a passion for this topic as well as for research itself. The author; a nurse and academic from the UK, was simply intrigued by the geographical make up of Australia and what this meant for the practice of nurses and healthcare. Having grown up in the UK with television images of 'the flying doctors' it was fascinating to see that these images were also driving forces for Australian nurses to work in rural and remote areas. This study, however, demonstrated in reality that this role is unique and one of extreme stress and social isolation where nurses are tested every day considering their responsibilities and how they can best meet the needs of their patients with limited human and material resources. At the same time, it also demonstrated the passion and commitment held by these nurses to provide care, despite the austere conditions, to communities of people with unique health and cultural needs. What started as an interest culminated in the researcher being in awe of these nurses working in these conditions every day and truly grateful to have had the opportunity to share a very small window into their professional and personal lives.

It is hoped that these important insights from this research will be used by nurses, managers and policy makers to undertake further work and make changes to practice to enable these highly qualified and capable nurses to fulfil their potential, without compromising care in an already disadvantaged population, and indeed their own wellbeing.

8.9 Chapter summary

This final chapter summary brings the thesis to a close. Chapter Eight has provided the reader with a reminder of the start of the journey. The researcher has discussed how the principles of Yin (2014) have been adhered to throughout the study and in writing up this thesis. In remaining true to Yin's principles, the researcher has produced a piece of work that demonstrates strong rigour. As such, this large study and subsequent thesis contributes to the

use of case study as a valuable research methodology for nursing. The strengths of the study have been discussed both in relation to method and also theory. The Theory of Cognitive Dissonance (Festinger, 1957) has enabled an insight into how nurses practice in rural and remote areas and the decisions they make. The contribution of this theory to practice is significant as it has rarely been considered within Australia and not at all in rural and remote nursing. As with any study, alongside strengths come limitations and these have been presented.

Whilst this study was concentrated within Australia, the study findings have been situated within the global context of rural and remote practice, in particular in Canada and the USA. It can be seen that many of the findings from this study have also been noted in these two countries, however, successful resolutions to these findings have not been found, highlighting the need for researchers to collaborate on international projects to investigate strategies to address the global issues of rural and remote nursing. Whilst many similarities were found in the Canadian and American literature, findings from this study regarding Nurse Practitioners, new graduate nurses, promotion and retention of staff, and the application of the Theory of Cognitive Dissonance (Festinger, 1957) were not seen, confirming the significance of this study and its contribution to knowledge.

The researcher has shared her personal learning journey throughout her PhD journey. It has not been an easy one, however she is proud of the work produced and its contribution to rural and remote practice. Future areas for research to be undertaken have been shared and the researcher herself is excited to consider that she may contribute to these and have an impact on the unique and inspiring roles that rural and remote nurses undertake every day.

GLOSSARY

Accountability - Nurses are accountable for their decisions, actions, behaviours and the responsibilities that are inherent in their nursing roles including documentation. Nurses answer to the people in their care, the nursing regulatory authority, their employers and the public (NMBA, 2016a, p. 6).

Advanced nursing practice (ANP) - A continuum along which nurses develop their professional knowledge, clinical reasoning and judgement, skills and behaviours to higher levels of capability (that is recognisable). Nurses practising at an advanced level incorporate professional leadership, education and research into their clinically based practice (NMBA, 2014, p. 5).

Advanced practice nursing (APN) - The additional legislative functions of an endorsed Nurse Practitioner that are outside the contemporary Registered Nurse scope of practice (NMBA, 2014, p. 7). The requirements include a prescribed educational level, a specified advanced nursing practice experience; and continuing professional development (NMBA, 2014, p. 5).

Australian Standard Geographical Classification-Remoteness Areas System (ASGC-RA) - The classification system used in determining the appropriateness of participants work settings in this study.

Base hospital – A hospital serving a large rural area.

Clinical Nurse Consultant (CNC) - An advanced practice nurse role in the State of NSW. A CNC is a Registered Nurse who possesses at least five years full-time equivalent post registration experience, and who, in addition, has attained approved post-registration nursing/midwifery qualifications relevant to the speciality field in which he or she is appointed (NSW Health, 2011). Similar roles exist in other States and are referred to by different titles.

Clinical Nurse Specialist (CNS) - A Registered Nurse/Midwife who applies a high level of clinical nursing knowledge, experience and skills in providing complex nursing/midwifery care directed towards a specific area of practice, a defined population or defined service area, with minimum direct supervision.

Competence - The combination of skills, knowledge, attitudes, values and abilities that underpin effective and/ or superior performance in a profession/occupational area (NMBA, 2010, p. 10).

Content analysis – A process by which text is arranged into similar categories and inferences are made about relationships.

Context – The environment in which a phenomenon occurs.

Continuing Professional Development (CPD) – The means by which members of the profession maintain, improve and broaden their knowledge, expertise and competence, and develop the personal and professional qualities required throughout their professional lives. (NMBA, 2016d, p. 4).

CRANA*Plus* – A professional body for nurses working in remote and isolated practice settings.

Credentialing – The process of establishing whether a professional has sufficient knowledge and skills to be working within a defined scope of practice.

Data corpus – The data in its entirety (Braun & Clarke, 2006).

Data extract - A particular quote from a data item (Braun & Clarke, 2006).

Data item - One particular piece of data e.g. one interview from a particular participant (Braun & Clarke, 2006).

Data set - One set of data which can be defined as the type of data or by an area of interest (Braun & Clarke, 2006).

Endorsement – An endorsement recognises that a person has an extended scope of practice due to meeting the education and practice requirements set by the regulatory board.

Enrolled Nurse (EN) - A person, who provides nursing care under the direct or indirect supervision of a Registered Nurse. They have completed the prescribed education preparation, and demonstrate competence to practise under the Health Practitioner Regulation National Law as an Enrolled Nurse in Australia. Enrolled nurses are accountable for their own practise and remain responsible to a Registered Nurse for the delegated care (NMBA, 2016, p. 6).

Mandatory training – The compulsory training required to be completed by an employing organisation.

Nursing and Midwifery Board of Australia (NMBA) – The regulatory body for Australia's Nurses and Midwives

Nurse Practitioner (NP) - An advanced practice nurse endorsed by the Nursing and Midwifery Board of Australia to practise within their scope under the legislatively protected title 'Nurse Practitioner'.

Nvivo – A qualitative data analysis software package.

Professional boundaries – The limits which protect the space between the professional's power and the vulnerability of a client (NMBA, 2013a, p. 1).

Registered Nurse (RN) - A person, who has completed the prescribed education preparation, demonstrates competence to practise and is registered under the Health Practitioner Regulation National Law as a Registered Nurse in Australia (NMBA, 2016, p. 6).

Rural and Isolated Practice Registered Nurse (RIPRN) – A Registered Nurse who has completed a programme of education enabling them to obtain, administer and supply certain schedule 2, 3, 4 and 8 medicines in designated rural and isolated practice areas.

Rival explanation – An alternative explanation proposed for the findings.

Scheduled medicine – Medicines are classified according to the levels of regulatory control over them. Medicines are scheduled as 2, 3, 4 and 8 in ascending levels of control.

Scope of practice - Is that in which nurses are educated, competent to perform and permitted by law. The actual scope of practice is influenced by the context in which the nurse practises; the health needs of people; the level of competence and confidence of the nurse and the policy requirements of the service provider (NMBA, 2016).

Sole practitioner/worker – A practitioner working in isolation from others or without direct supervision.

Standards for practice - Inform the education standards for Registered Nurses, the regulation of nurses and determination of the nurse's capability for practice, and guide consumers, employers and other stakeholders on what to reasonably expect from a Registered Nurse regardless of the area of nursing practice or years of nursing experience. They are the expectation of Registered Nurse practice (NMBA, 2016).

Telehealth – Provides health related services using telecommunication.

Telehealth Emergency Management Support Unit (TEMSU) – A telephone/videoconferencing resource which provides support to nurses in managing non-critical emergency presentations in the rural and remote environment. Support is provided by experienced nurses and/or medical staff.

Thematic analysis – A process by which qualitative data is coded and emerges into themes which describe the phenomenon being studied.

Theoretical propositions – Direct attention to something that should be examined within the scope of a study (Yin, 2009).

Transition – The process of moving from one area or role to another.

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APPENDICES

Appendix A Participant invite email sent to Executive Directors of Nursing

Appendix B Phase Three consent form

Appendix C Phase Three participant information sheet

Appendix D Phase Two questionnaire

Appendix E Excerpt providing an example of content analysis

Appendix F Phase Three participant demographics

Appendix G Codes, categories, themes and sub-themes generated for Phase Three data

Appendix H Differences between case one and case two participants

Appendix I Theoretical and empirical propositions at the conclusion of the study

Appendix J Sites and research governance approval

Appendix A: Participant invite email sent to Executive Directors of Nursing





Dear

I would like to invite your nursing staff to participate in a research study that forms part of my PhD in Nursing and would be grateful if you could forward this email onto your Registered Nurses. The title of the research is:

'The practice of Registered Nurses in rural and remote areas of Australia: Case study research'

The aim of the research is to delineate the roles and responsibilities of the Registered Nurse (RN) working in rural and remote areas of New South Wales and Queensland, Australia and to explore the clinical and educational preparation required to fulfil such roles and responsibilities.

In-depth exploration of the rural and remote nursing role and preparation for it has not been undertaken but rather has been included with those studies which have also looked at metropolitan sites. This research aims to fill the gaps to present evidence of the roles and responsibilities that rural and remote RNs undertake; whether the preparation for the role is considered effective and importantly whether there are associated concerns regarding health service delivery and future workforce planning. Such findings are significant as it provides the ability to recommend appropriate preparation of nurses working in rural and remote areas of Australia, influence future workforce planning and patient/client care.

The research comprises a short online survey after which participants can choose to further participate in a telephone or Skype interview. Not all participants that leave their details for interview will be selected. Participants for interview will be selected based on their responses in the survey as to their location and type of facility (e.g. DH, MPHS). This is so that I am able to gain a good geographical spread of information rich cases.

This research has been reviewed and has received ethical approval by the Central Queensland University Ethics Committee (H16/08-242) and the Townsville Human Research and Ethics Committee (HREC/16/QTHS/159). It has also received site research governance approval from your Local Health District (NSW) or Hospital and Health Service (QLD).

If staff would like to know more about the study and access the survey they can click on the following link which will take them to the research website
http://nicolawhiteing.wixsite.com/ruralremoteresearch

Thanking you in advance for your consideration.

Kind regards

Nicola Whiteing

PhD Candidate, Central Queensland University

Appendix B: Phase Three consent form

CONSENT FORM

Title of Study: The practice of Registered Nurses in rural and remote areas of Australia: Case study research

Researcher's Name: Nicola Whiteing, PhD candidate

Contact Details: Central Queensland University, 100 Ann Street, Brisbane,

nicola.whiteing@cqumail.com

I consent to participation in this research project and agree that:

1. An information sheet has been provided to me that I have read and understood
2. I have had any questions I had about the project answered to my satisfaction by the information sheet and any further verbal explanation provided
3. I understand that my participation or non-participation in the research project will not affect my employment
4. I understand that I have the right to withdraw from the project at any time without penalty
5. I understand that the research findings will be included in the researcher's thesis and publication(s) on the project and this may include conferences and articles written for journals and other methods of dissemination stated in the information sheet
6. I understand that to preserve anonymity and maintain confidentiality of participants that codes/fictitious names will be used in the thesis and publication(s)
7. I am aware that a plain English statement of results will be available on the project web address (http://nicolawhiteing.wixsite.com/ruralremoteresearch) at the conclusion of the project
8. I agree that I am providing informed consent to participate in this project

Participant Name	Signature	Date

CQUHREC Approval: H16/08-242

Research Division (Bldg 32 Level 2)

CQUniversity Australia

Bruce Highway, North Rockhampton, QLD 4701

Townsville HREC Approval: HREC/16/QTHS/159

Research Support Unit – IMB 52

PO Box 670, Townsville, QLD 4810

Appendix C: Phase Three participant information sheet

THE PRACTICE OF REGISTERED NURSES IN RURAL AND REMOTE AREAS OF AUSTRALIA: CASE STUDY RESEARCH

The following page provides you with information about the interview component of this study. Please read this information carefully and then click the box to confirm that you have read and understand the information. Please then complete your contact details and the researcher will be in touch. Please note that not everyone will be contacted for an interview.

Background to the study

Major changes have been seen in the way health care services are provided and as a result the role of the Registered Nurse has also changed. Rural and remote nurses work in unique and challenging roles and whilst much research has been carried out looking at health care provision in these areas, few studies have looked in depth at the roles, responsibilities, challenges and development of the rural and remote RN.

Aim of the research

The aim of the study is to outline the roles and responsibilities of the Registered Nurse (RN) working in rural and remote areas of New South Wales and Queensland, Australia and to explore the clinical and educational preparation required to fulfil such roles and responsibilities.

Benefits of the study

In-depth exploration of the rural and remote nursing role and preparation for it has not been undertaken but rather has been included with those studies which have also looked at metropolitan sites. This research aims to fill the gaps to present evidence of the roles and responsibilities that rural and remote RNs undertake; whether the preparation for the role is considered effective and importantly whether there are associated concerns regarding health service delivery and future workforce planning. Such findings are significant as it provides the ability to recommend appropriate preparation of nurses working in rural and remote areas of Australia, influence future workforce planning and patient/client care.

Eligibility

I am looking for participants who meet the following criteria:

- Qualified Registered Nurse currently working within a rural or remote setting within NSW or QLD, Australia

- The Registered Nurse has a role working clinically with patients/clients/service users

- If the Registered Nurse is an accredited Nurse Practitioner then the credentialing must have been carried out and completed in Australia

What will be required?

If you agree to and are selected for an interview, this will be arranged at a mutually convenient time. The interview will last no longer than 60 minutes and will be carried out by the principal researcher over the telephone or skype. The interview will be voice recorded and the interview will be transcribed by the principal researcher only.

Not all participants will be contacted for an interview. Only a small number of cases will be selected on the basis of geographical location and type of facility e.g. district hospital, MPHS to enable the researcher to gain information rich cases as examples of rural, remote and very remote locations within NSW and QLD.

Participation in this research is entirely voluntary and confidential.

What kind of questions may be asked?

The interview will be exploring the same topics as the survey and will comprise more open questions to really explore your experiences in depth. You do not have to answer every question if you do not feel comfortable to do so.

How much time is required?

Interviews will not last any longer than 60 minutes unless you wish to extend the interview time. If following the interview further clarification is required, then a brief telephone conversation may be necessary.

Where will interviews take place?

Interviews will take place at a mutually convenient time and will be held over the telephone or via skype.

What are the benefits and risks to participants?

Through participation in this research you will be able to explore your current roles and responsibilities. Through reflection on your previous and/or current training and development you will reaffirm your abilities and also consider further development needs that you may benefit from.

It is not envisaged that there will be any risks to participants in participating in this study as this type of information is normal professional debriefing. However, in the unlikely event that the participant does experience a negative outcome or experience, contact details for Lifeline can be found near the bottom of this page/sheet.

Confidentiality

All interview responses will be received by one researcher, who will de-identify the results as soon as they are received. This means that as interview transcripts are received, they will be given code names and/or numbers. There will be no use of participant names at any stage of the project. All information received is for research purposes only and only the principal researcher will be able to link participant responses with individual identities. Any information

that is to be shared with the researcher's supervisors will be in coded form. If there are any specific details which may identify you such as geographical location this information will be de-identified to ensure your identity remains confidential.

Interviews will be voice recorded and the recording will be given code names and/or numbers as with the survey. Interviews will be transcribed by the principal researcher. All copies of the transcribed interview will only be identifiable by that number. Once all information is de-identified, all information will be stored on a password protected computer for a period of five years post the final publication date, and then deleted and/or destroyed. All data for this project will be securely stored for five years following the final publication from the project in accordance with the CQUniversity policy. After this time, recorded files will be deleted, and any printouts will be shredded.

What will be done with the findings?

Initially the findings will form part of my PhD thesis. It is anticipated that a number of papers will be submitted for publication in relevant academic journals. Findings may also be presented at national and international conferences. No personal or identifiable data will be used within the dissemination of results. All excerpts used will not be attributable to individuals or organisations with pseudonyms used where applicable. A summary of the results will be posted on this website once the thesis is completed for participants to view if they wish.

Consent

If following reading this information you agree to an interview, you will be asked to check the box to confirm that you have read and understood the information. You will then be asked to input your contact details. Due to the time between survey completion and being selected for an interview you will be given this information again and asked to sign a consent form and return to the researcher via email prior to the interview taking place. Please remember that not all participants will be contacted for an interview.

What if I change my mind?

Participants have the right to withdraw from the study at any time without repercussions. Should interview participants withdraw prior to data analysis, the interview file will be deleted, and any transcripts made will be shredded. Should participants withdraw after data analysis has begun, withdrawal of specific data cannot be guaranteed due to the nature of how it is analysed. However, no reference to any actual words or statements made during any interview will be made in any document or presentation of the findings.

Concerns/complaints

Should there be any concerns about the nature and/or conduct of this research please contact:

Townsville Hospital and Health Service Human Research Ethics Committee, Chairperson, Tel: 07 4433 1440 or Email TSV-Ethics-Committee@health.qld.gov.au

This project has been approved by the Townsville Hospital Human Research Ethics Committee, approval number HREC/16/QTHS/159 and the CQUniversity Human Research Ethics Committee, approval number H16/08-242

Where to from here?

If you have any further questions regarding this research, please contact the researcher:

Nicola Whiteing, PhD candidate, School of Nursing, CQUniversity

nicola.whiteing@cqumail.com

or the principal supervisor:

Associate Professor Jennieffer Barr, Deputy Dean for Research, School of Nursing & Midwifery, CQUniversity

J.barr@cqu.edu.au

Lifeline: 13 11 14

If you are willing to proceed to an interview, please check the box below and enter your contact details. Thank you!

I have read and understood the information presented on this information sheet (Master.v.1 July 2016). I understand that I can contact the researcher if I have any questions regarding the study or my involvement in it. ☐

Name _____

Contact email _____

Contact telephone _____

Postcode _____

Is there a preferred time for me to contact you?

_____

Appendix D: Phase Two Questionnaire

1. What is your gender?
    a) Male
    b) Female
    c) Other
2. What is your age?
    a) 21-24 years
    b) 25-34 years
    c) 35-44 years
    d) 45-54 years
    e) 55-64 years
    f) 65 years
3. What is your current job title?
4. Can you tell me a little about the community in which you work e.g. mining, agriculture, Indigenous?
5. What is your workplace postcode?
6. Which of the following best describes your workplace?
    a) A district hospital
    b) A community hospital
    c) A rural hospital
    d) A rural Multipurpose Health Service
    e) A community Multipurpose health service
    f) Other (please comment)
7. How far is it to the nearest tertiary referral centre (if known)?
8. Do you have access to any of the following Health Care Professionals? Please leave blank if not applicable)

	Available on site 24hrs a day 7 days a week	Available on site during business hours only	Available off site via phone 24hrs a day 7 days a week	Available off site via phone during business hours only	Available via telehealth
Doctor					
Anaesthetist					
Midwife					
Psychiatrist					
Psychologist					
Mental Health RN					
Social Worker					
Drug & Alcohol Liaison					

9. How long have you worked in rural and/or remote locations as an RN?
    a) < 6 months
    b) 6-12 months
    c) 12 months to 2 years
    d) 2-5 years
    e) > 5 years
10. How long have you worked at your current place of employment?
    a) < 6 months
    b) 6-12 months
    c) 12 months to 2 years
    d) 2-5 years
    e) > 5 years

11. How long do you plan to stay at your current place of employment?
    a) < 6 months
    b) 6-12 months
    c) 12 months to 2 years
    d) 2-5 years
    e) > 5 years
    f) Don’t know
12. How long do you plan to stay working in rural and/or remote nursing?
    a) < 6 months
    b) 6-12 months
    c) 12 months to 2 years
    d) 2-5 years
    e) > 5 years
    f) Don’t know
13. In your current role how much time (%) is spent doing each of the following in a typical month?
    a) Clinical/direct patient care
    b) Administration
    c) Research
    d) Education
    e) Management
14. How many hours/days are you contracted to work per week?
15. How many hours did you work last week? (if you were on leave last week please take your last working week prior to your leave)
    a) Less than my contracted hours
    b) My contracted hours
    c) More than my contracted hours (please specify how many additional hours you worked last week and the reason for this)

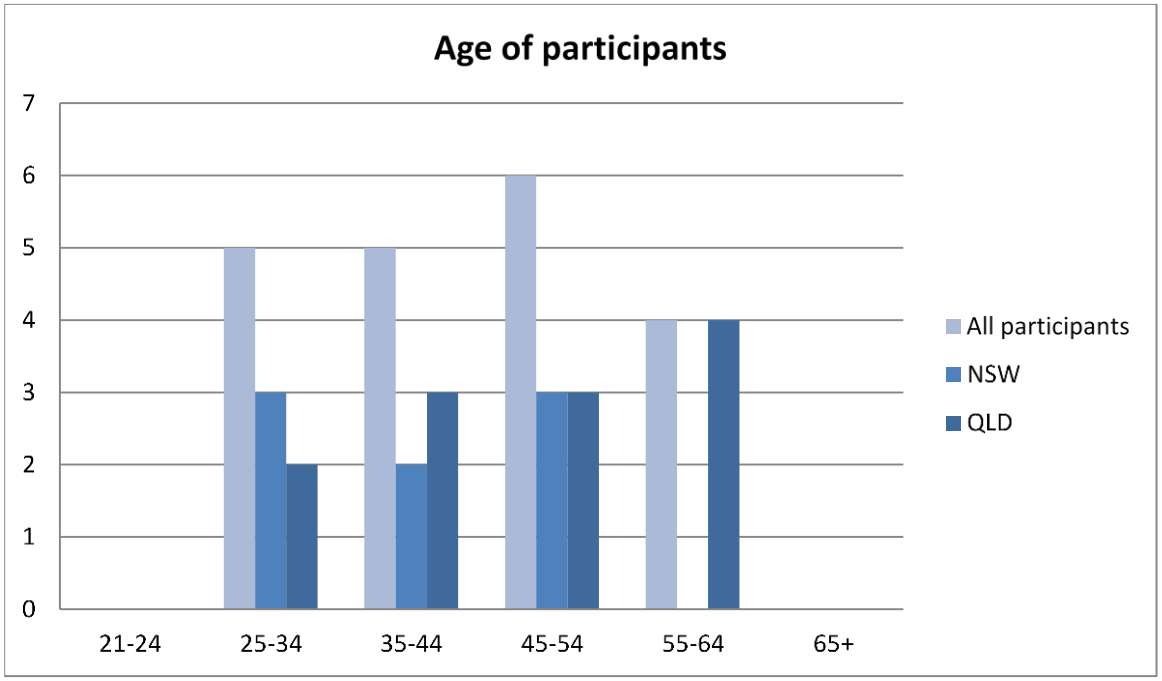
16. What are your main clinical roles and responsibilities on a weekly basis?
17. Which of the following age groups do you work with clinically?
    a) Infants (< 1year)
    b) Children (1-5 years)
    c) Children (6-12 years)
    d) Adolescents (13-17 years)
    e) Adults (18-64 years)
    f) Older adults (> 65 years)
18. Do you always have access to the resources and/or professionals to manage patient presentations at any time? If no, can you give me an example of when you didn't and how the issue was overcome?
19. Have you completed any study since you qualified as a RN (incl. in-house courses, training days and university courses), if so what?
20. Have you completed any study since you have been working in your current role, if so what?
21. How much funding for course attendance and/or paid study leave do you receive annually?
22. Are there any particular skills and/or courses that you feel you would personally benefit from or that you think RNs working in rural and/or remote locations should have?
23. What do you think is the biggest challenge to working in rural and remote nursing?
24. What motivates you to continue to work in rural and/or remote nursing?

Appendix E: Excerpt providing an example of content analysis

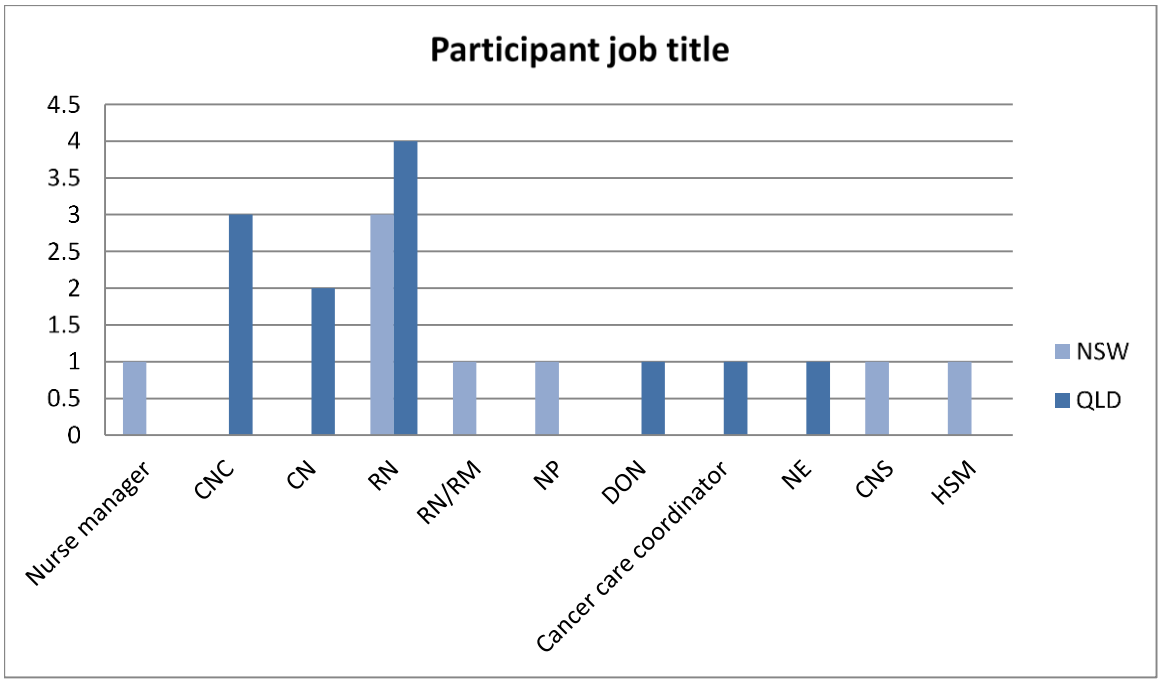
Undertaken on an excerpt from NSW20, question 23: 'what do you think is the biggest challenge to working in rural and remote nursing?'

MEANING UNIT	CONDENSED MEANING UNIT	CODE	CATEGORY 1	CATEGORY 2	CATEGORY 3
In rural nursing you do not just do one role	Do not do just one role	Work as generalists	Roles & responsibilities		
You are a "jack of all trades"	"Jack of all trades"	Work as generalists	Roles & responsibilities		
It is expected that no matter where you work if another area requires help you are there	We have to work in all areas	Work as generalists Expectations Frustration	Roles & responsibilities	Expectations	Workforce
You don't have the support like metropolitan hospitals do	We have less support	Less support Limited resources	Support		
I think also the isolation	Isolation	Working in isolation	Isolation		
You are far away from specialists, support and advanced care	Far away from specialists, support and advanced care	Working in isolation Lack of support Limited resources	Isolation	Support	

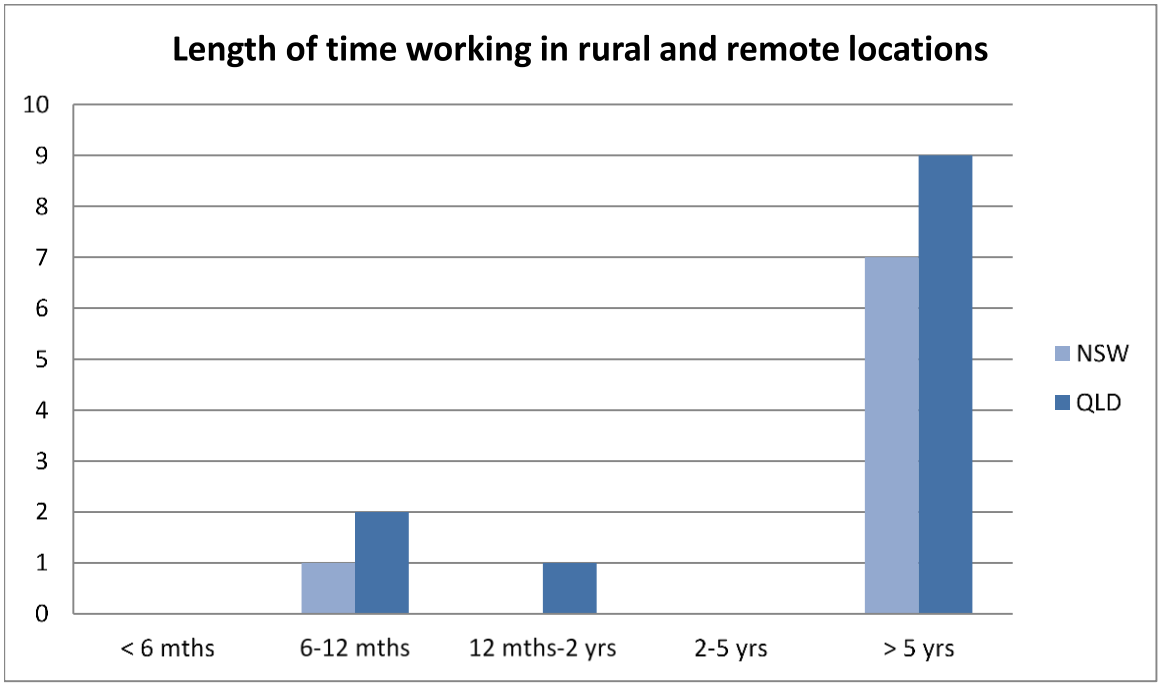
Appendix F: Phase Three participant demographics



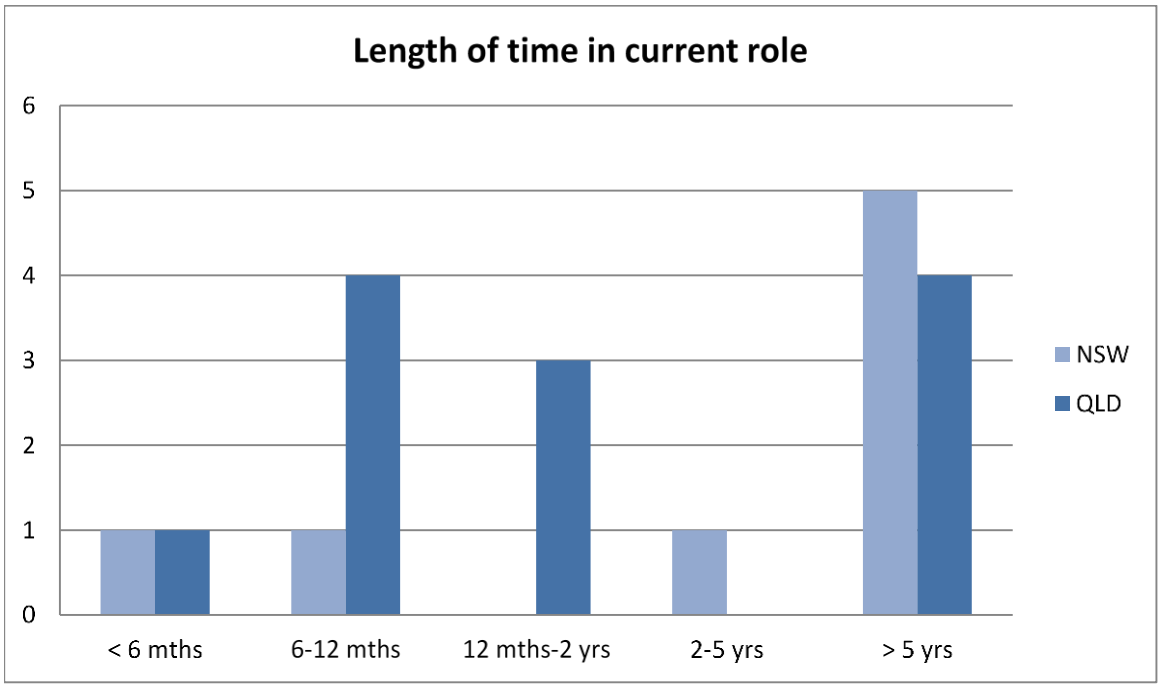
Participant ages



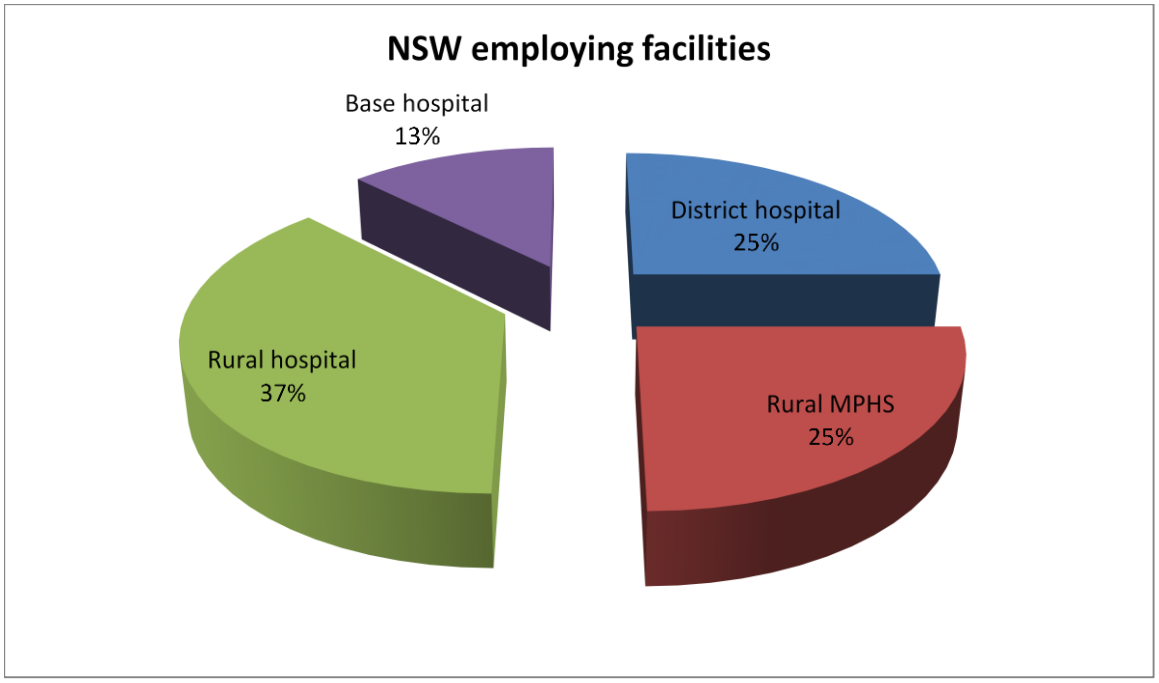
Participant job titles



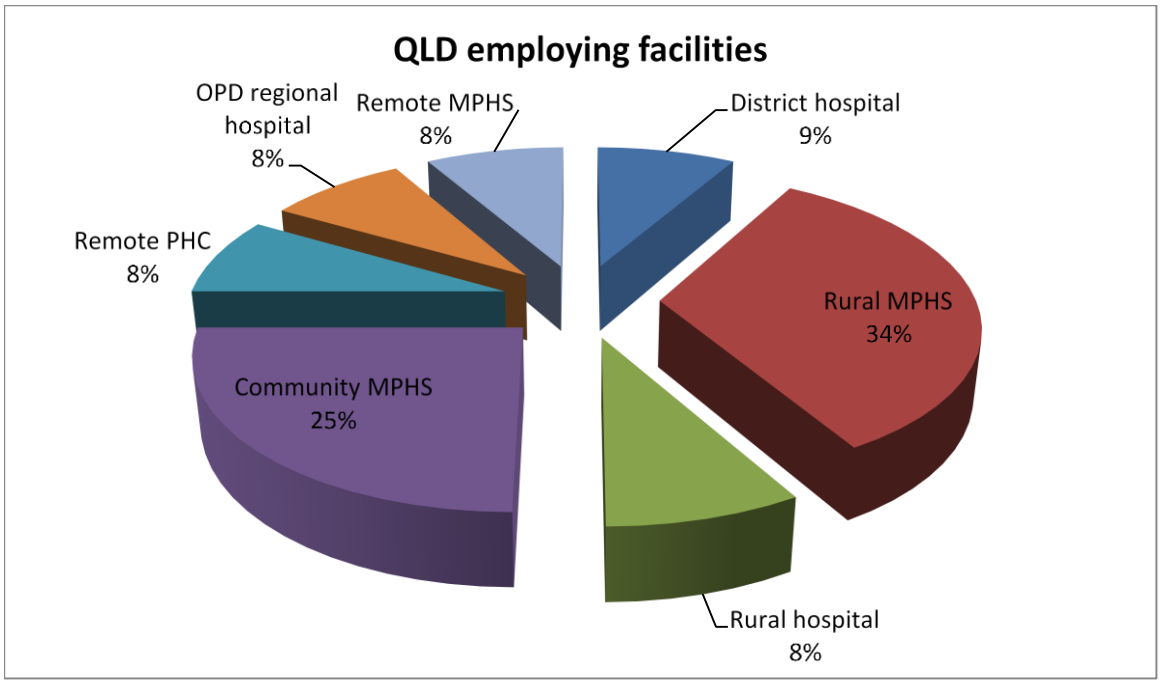
Length of time working in rural and remote locations



Length of time in current role



NSW employing facilities



QLD employing facilities

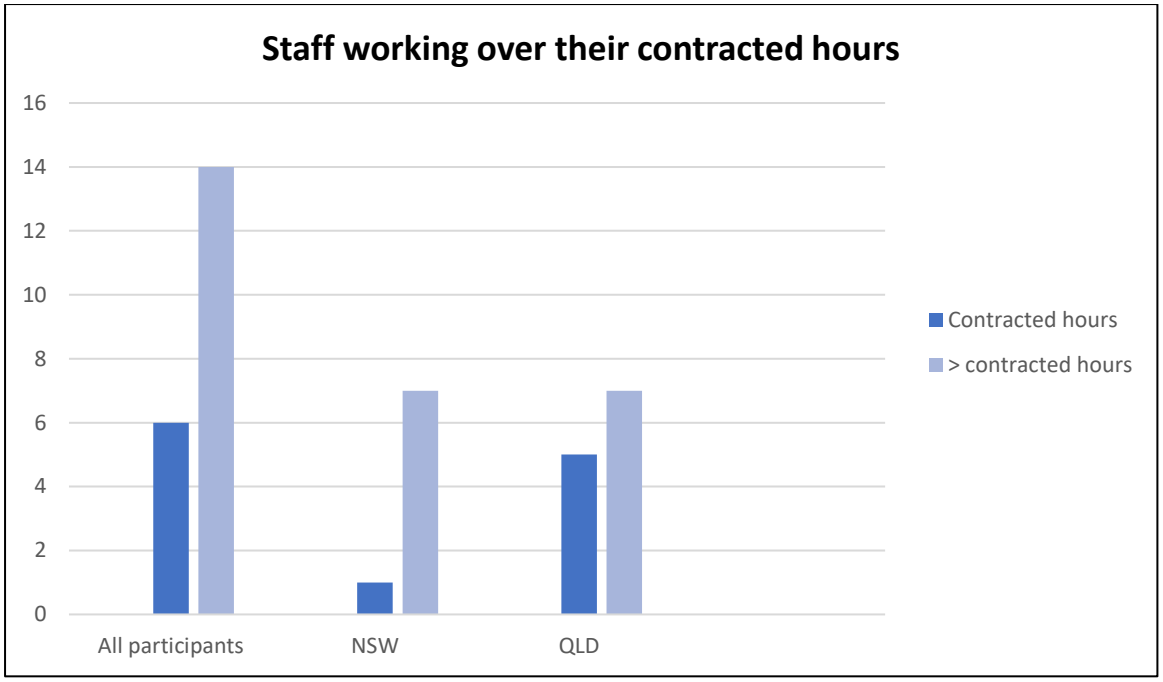
Availability of health care professionals

	Available on site 24hrs a day 7 days a week	Available on site during business hours only	Available off site via phone 24hrs a day 7 days a week	Available off site via phone during business hours only	Available via telehealth	Total participants (n=)
Doctor	8 (40%)	6 (50%)	6 (50%)	0 (0%)	0 (0%)	20
Anaesthetist	5 (41.66)%	1 (8.33%)	3 (25%)	0 (0%)	2 (16.66%)	11
Midwife	9 (75%)	2 (16.66%)	4 (33.33%)	0 (0%)	0 (0%)	15
Psychiatrist	2 (16.66%)	2 (16.66%)	1 (8.33%)	5 (41.66%)	5 (41.66%)	15
Psychologist	1 (8.33%)	4 (33.33%)	1 (8.33%)	3 (25%)	3 (25%)	12
Mental Health RN	2 (16.66%)	7 (58.33%)	0 (0%)	8 (40%)	0 (0%)	17
Social Worker	1 (8.33%)	8 (40%)	0 (0%)	7 (58.33%)	1 (8.33%)	17
Drug & Alcohol Liaison	1 (8.33%)	7 (58.33%)	0 (0%)	10 (83.33%)	1 (8.33%)	19

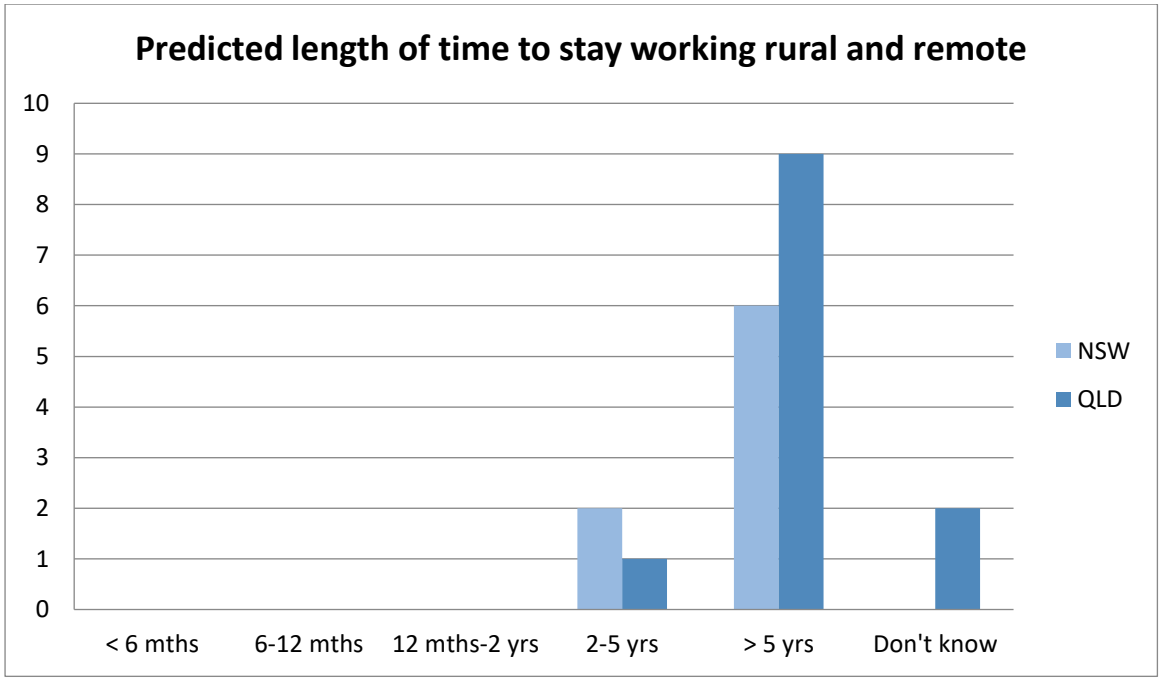
Availability of health care professionals – QLD and NSW compared

	Available on site 24hrs a day 7 days a week		Available on site during business hours only		Available off site via phone 24hrs a day 7 days a week		Available off site via phone during business hours only		Available via telehealth		Total participants (n=)	
Doctor	3	5	5	1	4	2	0	0	0	0	12	8
	25%	62.5%	41.6%	12.5%	33.3%	25%	0%	0%	0%	0%		
Anaesthetist	1	4	0	1	2	1	0	0	2	0	5	6
	8.3%	50%	0%	12.5%	16.6%	12.5%	0%	0%	16.6%	0%		
Midwife	3	6	1	1	4	0	0	0	0	0	8	7
	25%	75%	8.3%	12.5%	33.3%	0%	0%	0%	0%	0%		
Psychiatrist	0	2	2	0	0	1	3	2	4	1	9	6
	0%	25%	16.6%	0%	0%	12.5%	25%	25%	33.3%	12.5%		
Psychologist	0	1	2	2	0	1	1	2	2	1	5	7
	0%	12.5%	16.6%	25%	0%	12.5%	8.3%	25%	16.6%	12.5%		
Mental Health RN	0	2	4	3	0	0	5	3	0	0	9	8
	0%	25%	33.3%	37.5%	0%	0%	41.6%	37.5	0%	0%		
Social Worker	0	1	4	4	0	0	5	2	1	0	10	7
	0%	12.5%	33.3%	50%	0%	0%	41.6%	25%	8.3%	0%		

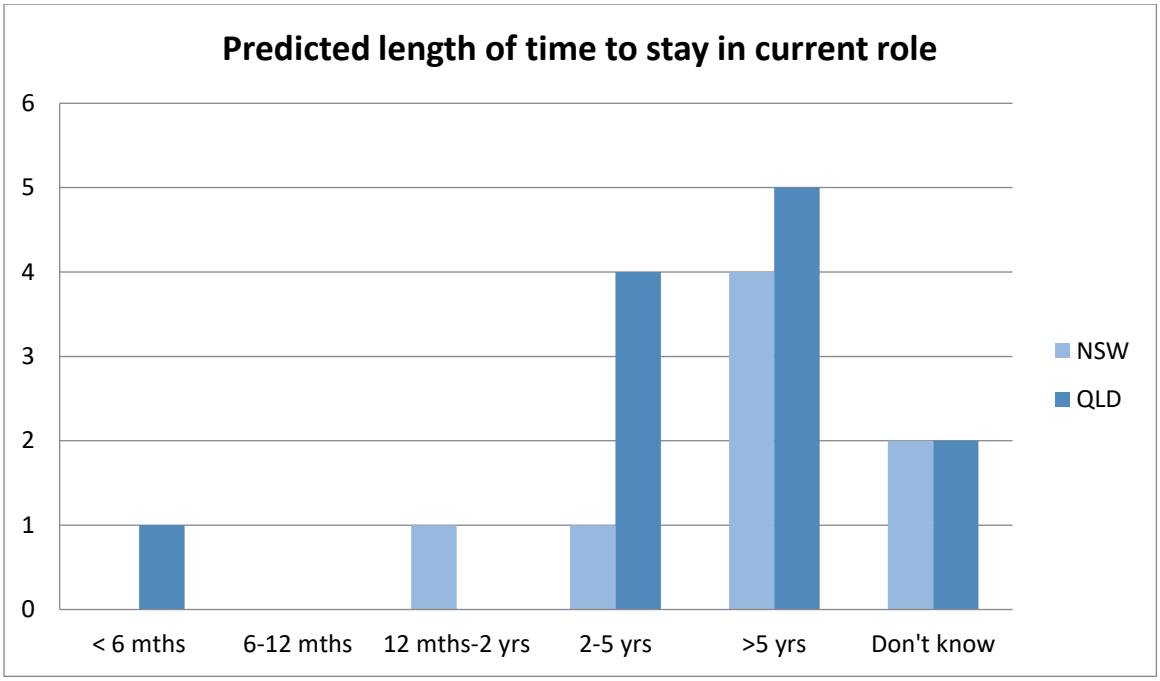
Drug & Alcohol Liaison	0 0%	1 12.5%	5 41.6%	2 25%	0 0%	0 0%	6 50%	4 50%	0 0%	1 12.5%	11	8



Participants working over contracted hours in the week preceding the questionnaire



Predicted length of time to stay working rural and remote



Predicted length of time to stay in current role

Appendix G: Codes, categories, themes and sub-themes generated for Phase Three data

CODE	CATEGORY	THEME & SUB-THEMES	NAME OF THEME
Skill maintenance Experience Credentialing Education/training Transition	Skills	Preparation: - extended skills - high-risk skills - lost and found skills - experience - transition	A medley of preparation needs for work in the rural and remote area
Roles and responsibilities Scope of practice Nurse Practitioner Safety Challenge	Practice	Accountability: - of individual - for others - of organisations - to community	Being held accountable: A three-pronged approach
Geographical Community Culture Professional boundaries	Location	Isolation: - of self - from colleagues - from services	Alone, with or without someone
Resources Support Modify, adapt, overcome Organisation	Support		
Frustration Uncertainty Health	Health & Wellbeing	Wellbeing: • of self • of others • of organisations	Spiralling wellbeing
Expectations Motivators Advice Perceptions	Perceptions	Impressions: • reality versus perceptions • metro-centric versus rural and remote	Daunting impressions

Appendix H: Differences between Case One and Case Two participants

The demographics of the Phase Three participants were presented in appendix F. There were, however, some demographical differences between the two cases which are important to note in drawing inferences from the qualitative data. New South Wales case participants were younger that the Queensland participants with a mean age of 35-44 years as opposed to 45-54 years. Roles that were held were a good mix between RNs and more senior roles such as CNCs and NUMs. The one Nurse Practitioner in the study worked in New South Wales.

Nurses in New South Wales had been working within their current positions for longer on average than Queensland employees although overall, when looking at the combined numbers of participants, the average across both groups was the same at 2-5 years. Facilities were somewhat different between the two cases with New South Wales participants working mainly in hospitals in rural locations and Queensland participants working predominantly in remote community facilities. Due to the nature of employing facilities it was not surprising to see that nurses in the New South Wales case had more access to other health care professionals, particularly medical staff.

In considering factors influencing retention figures, those nurses working within New South Wales facilities claimed to be undertaking much more overtime (87.5%) than the Queensland employees (58.3%) in the week preceding Phase Two data collection. In drawing inferences from these figures, the researcher turned to the qualitative data which demonstrated that Queensland employees were undertaking a lot more on-call activities, including continuous on-call for many of the primary care practitioners. Thus, these participants would not be reporting working over and above their contracted hours due to their contract being ‘constant availability’. In addition, New South Wales participants reported to be undertaking a lot of documentation activities after their shift had ended due to not having time to do this during their shift. These activities were possibly completed during on-call hours for Queensland participants.

Appendix I: Theoretical and empirical propositions at the conclusion of the study

Predicted Proposition	Empirical Proposition(s)
There are a variety of roles and responsibilities held between nurses working in rural and remote areas of Australia.	The roles and responsibilities held by rural and remote nurses differ between geographical locations including the degree of remoteness, employing facility and numbers and specialities of staff working at the facility.
There are some roles and responsibilities of the rural and remote RN that are an extension of their practice and indicate a level of advanced practice.	There are a number of clinical skills that rural and remote nurses undertake which are an extension of undergraduate training and indicate a level of advanced practice and advanced level thinking.
There are a number of organisational concerns regarding the scope of practice of registered nurses working in rural and remote areas [including patient safety, workforce planning, recruitment and retention].	Issues of recruitment and retention are concerning and need to be considered by organisations. Nurses working within organisations hold concern over their scope of practice, workforce issues, recruitment, retention and patient safety.
There is international variation of advanced level practice and preparation for it.	There are variations to definitions of advanced practice globally and nationally. Subsequently, nurses are being prepared in different ways for such roles.
The RNs working in rural and remote areas require advanced level thinking and practice to fulfil their roles and responsibilities.	To meet the demands of working in rural and remote areas with minimal support from medical staff and other professionals, the nurse requires advanced level thinking to make safe and clinically effective decisions.
There is a variation amongst rural and remote RNs as to the amount and level of	Opportunities to prepare for rural and remote roles and undertake continuing professional development are variable and depend on

CPD/preparation for practice in the rural and remote area.	geographical location including the degree of remoteness, the employing facility, line manager's attitude to CPD/preparation, changing delivery of CPD and numbers of staff working at the facility.
There are a number of existing programmes available to prepare the RN for advanced level practice.	Access to context-specific programmes for the rural and remote nurse are limited based on geographical availability of such programmes. Where programmes are available, such as those interstate, they are perceived to be effective in preparing for advanced level practice.
Economical influences of the community will determine some of the clinical issues nurses will be exposed to and/or required to manage and treat. Examples may include; agriculture, mining, availability of human and material resources and economic issues such as political elections that may take place during the time of the study.	The practice of the RN, clinically and non-clinically is affected by the economical influences of the community.
Rural and remote nurses can face a number of challenges which can have an effect on their practice.	There are a significant number of challenges that nurses working in rural and remote areas face which require them to modify and adapt their practice.
Rural and remote nurses use their networks across locations to gain support and information to provide effective health care.	Rural and remote nurses are good at seeking out support to ensure the provision of effective health care. Previous support networks that have been available are being removed making it harder to find support for them personally.

Appendix J: Sites and research governance approvals

	LHD/HSS	NUMBER OF SITES	NUMBER OF SSAs/APPLICATIONS	RESPONSE
NSW	Far West	9	1	Approved
	Hunter New England	37	1	Approved
	Mid-North Coast	8	1	Approved
	Murumbidgee	16	1	Approved
	Northern	2	1	Withdrawn (RGO away)
	Southern	8	1	Not Approved
	Western	27	1	Approved
QLD	Cairns & Hinterland	18	1	No signatures received – withdrawn
	Central QLD	11	1	Approved
	Central West	21	1	Approved
	Darling Downs	16	1	Approved
	Mackay	10	7	Approved
	North West QLD	11	1	Exempt

	South West QLD	13	1	Approved
	Torres & Cape	18	1 (for each phase)	Approved
	Townsville	8	1	No signatures received - withdrawn
	Widebay	7	1	Approved
TOTAL NUMBER	**17**	**240**	**24**	