

# **Social networking sites (SNS); exploring the value to adolescent mothers using narrative**

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## Abstract

**Aim:** To explore adolescent mothers' use of social networking sites (SNS) as mechanisms of support, and to consider these platforms as a tool for midwives to extend multifaceted, versatile and ongoing support and education to this often-vulnerable group.

**Background:** Motherhood during adolescence may have detrimental effects on the lives and functionality of mothers, their infants and society. While there are government and non-government organisations that provide tailored support and health care services for adolescent mothers, these are usually offered in person either within community or hospital settings. Gaps in the literature exist where adolescent mothers offer their experiences of SNS use as a relevant means to inform midwifery practice and services.

**Research design:** This study used a narrative approach to guide the research design and processes, gathering personal stories to explore both the nuances of adolescent motherhood and the online experience. The study was comprised of two phases: the exploration of West Australian adolescent mothers' use of SNS and any associated social capital attributed to such use and the consideration of SNS as a tool for midwives to lend adolescent mothers further parenting support. Approval was obtained from Edith Cowan University's Human Research Ethics Committee to conduct interviews and focus groups with adolescent mothers and midwives in Western Australia.

**Data collection and analysis:** Narrative data from interviews and focus groups with adolescent mothers and midwives were collected, transcribed and analysed to produce themes. Data collection, analysis and literature exploration occurred concurrently using the constant comparison method (Creswell, 2013).

**Findings:** Adolescent mothers indicated SNS use provides them with valuable social capital and has the potential to enhance wellbeing during the transition to motherhood.

Moreover, findings suggest both adolescent mothers and midwives consider there are a variety of ways in which midwives could enhance the support afforded to adolescent mothers using SNS. Midwives were more likely to consider the need for guideline development, but the underlying value potential expressed in terms of their ability to provide accessible and professionally mediated online support and information was consistent across the two groups.

**Conclusion:** This study suggests SNS use may assist adolescent mothers to build social capital. Midwives would benefit from acknowledging the role played by SNS in providing support to adolescent mothers and by considering how this technology can be used to lend further support.

**Implications for practice:** Identifying the value of SNS as a mechanism of support and social capital acquisition for adolescent mothers has implications not only for future midwifery practice and curricula, but also for managers, education providers, policymakers and researchers. Recommendations have been made across these areas of midwifery practice and maternity care provision, some of which focus on the consideration of innovative online extensions to midwifery-led care for adolescent mothers. Further, these recommendations have potential relevance for those caring for other marginalised groups such as First Peoples, migrant mothers or childbearing women in rural or remote areas of Australia. Fundamentally, these recommendations serve to bridge the gap between health care service provision and the digital age, particularly for adolescent consumers.

**Keywords:** adolescent mothers; social networking sites; midwives; social capital; social support; online support

## Acknowledgements

I would like to sincerely thank the following people for their assistance in the completion of this thesis. My academic supervisors Associate Professor Joyce Hendricks and Professor Moira Williamson of the School of Nursing, Midwifery and Social Sciences at CQUniversity, Queensland, and Assistant Professor (Clinical) Sally Ferguson of the School of Nursing and Midwifery at the University of Canberra. These three extremely gifted mentors have provided unfaltering wisdom and support, and without their guidance and constructive criticism I would not have been able to succeed in this odyssey. Joyce, I give to you my heartfelt thanks; we have travelled this prodigious journey together from day one, facing inevitable ups and downs, but your inner strength and moments of ‘pure genius’ have mentored me both personally and professionally. I also thank Dr Amanda Towell-Barnard of the School of Nursing and Midwifery at Edith Cowan University, Western Australia, for her supervision and nurturing support during the early years of my doctoral candidature and extend my gratitude to the young mothers and dedicated midwives whose narratives shaped this study, for their selfless contribution to this research journey.

Finally, I give special thanks to my family. My children Hannah, Corey and Jem will forever be my inspiration to be ‘the best I can be’ and who have kept me smiling throughout this seemingly endless quest. To my beloved husband, Chris, my ‘Bezzie Oppo’, for being there for me, unquestioningly, on every single step of this epic journey, and my mother Carole, whose faith in me has never waned.

With endless appreciation, I dedicate this thesis to you all.

Capstone Editing provided copyediting and proofreading services, according to the guidelines laid out in the university-endorsed national ‘Guidelines for Editing Research Theses’.

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## **ACKNOWLEDGEMENT OF SUPPORT PROVIDED BY THE AUSTRALIAN GOVERNMENT**

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## **Declaration of Authorship and Originality**

I, the undersigned author, declare that all 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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## **List of Abbreviations**

ABA	Australian Breastfeeding Association
ABS	Australian Bureau of Statistics
AHPRA	Australian Health Practitioner Regulation Agency
AIHW	Australian Institute of Health and Welfare
ECU	Edith Cowan University
NMBA	Nursing and Midwifery Board of Australia
PND	postnatal depression
SNS	social networking site
UK	United Kingdom
US	United States
WA	Western Australia
WHO	World Health Organization

## **List of Definitions and Terms**

To facilitate an understanding of the fundamental terms used within this thesis, definitions and terms are provided:

**Adolescent:** the World Health Organization's (WHO, 2017, p. viii) definition of an 'adolescent' as 'a person aged 10–19 years' will be used throughout this thesis.

**Social Networking Sites (SNS):** this term is used to describe any Internet website that enables users to create public profiles and form relationships with other users (Boyd & Ellison, 2007). SNS can encompass community-based websites, online discussion forums, chat rooms and other social spaces online.

**Social capital:** social capital has historically been conceptualised as the resources invested into and produced by social networks, and their value for individuals, groups and societies alike (Bourdieu, 1986; Coleman, 1988; Putnam, 2000a).

## Table of Publications and Presentations Arising from and/or Relevant to the Thesis Work

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Publications by the candidate

relevant to the thesis

---

Paper 1	Nolan, S., Hendricks, J., Ferguson, S. & Towell, A. (2017). Social networking site (SNS) use by adolescent mothers: Can social support and social capital be enhanced by online social networks? — A structured review of the literature. <i>Midwifery</i> , 48, 24–31. DOI:10.1016/j.midw.2017.03.002
Paper 2	Nolan, S., Hendricks, J., Williamson, M. & Ferguson, S. (2018). Using narrative inquiry to listen to the voices of adolescent mothers in relation to their use of social networking sites (SNS). <i>Journal of Advanced Nursing</i> , 74(3), 743–751. DOI:10.1111/jan.13458
Paper 3	Nolan, S., Hendricks, J. & Towell, A. (2015). Social networking sites (SNS); exploring their uses and associated value for adolescent mothers in Western Australia in terms of social support provision and building social capital. <i>Midwifery</i> , 31(9), 912–919. DOI:10.1016/j.midw.2015.05.002
Paper 4	Nolan, S., Hendricks, J., Williamson, M. &

	<p>Ferguson, S. (2018). Social networking sites (SNS) as a tool for midwives to enhance social capital for adolescent mothers. <i>Midwifery</i>, 62, 119–127. DOI:10.1016/j.midw.2018.03.022</p>
Paper 5	<p>Nolan, S., Hendricks, J., Williamson, M. &amp; Ferguson, S. (under review). Building the construct of social capital in relation to adolescent mothers' use of social networking sites (SNS) to encourage salutogenic online approaches in midwifery. <i>Women and Birth</i>.</p>
Editorial	<p>Nolan, S., Hendricks, J. &amp; Towell, A. (2016). Adolescent mothers' use of social networking sites creating positive mental health outcomes. <i>Australian Nursing and Midwifery Journal</i>, 23(11), 50.</p>
Conference presentations	<p>Poster: Rural Health Conference 2016—Tweed Heads, NSW</p> <p>Poster: Virtual International Day of the Midwife 2016 (online)</p> <p>Accepted abstract: Optimising Health Conference October 2016 (Oral presentation)</p> <p>Accepted abstract: ACM Conference October 2018 (Oral presentation)</p>

## Declaration of Contribution

I, Samantha Nolan, contributed a minimum of 50 per cent to the following papers:

- Nolan, S., Hendricks, J. & Towell, A. (2015). Social networking sites (SNS); exploring their uses and associated value for adolescent mothers in Western Australia in terms of social support provision and building social capital. *Midwifery*, 31(9), 912–919. DOI:10.1016/j.midw.2015.05.002
- Nolan, S., Hendricks, J., Ferguson, S. & Towell, A. (2017). Social networking site (SNS) use by adolescent mothers: Can social support and social capital be enhanced by online social networks? — A structured review of the literature. *Midwifery*, 48, 24–31. DOI:10.1016/j.midw.2017.03.002
- Nolan, S., Hendricks, J., Williamson, M. & Ferguson, S. (2018). Using narrative inquiry to listen to the voices of adolescent mothers in relation to their use of social networking sites (SNS). *Journal of Advanced Nursing*, 74(3), 743–751. DOI:10.1111/jan.13458
- Nolan, S., Hendricks, J., Williamson, M. & Ferguson, S. (2018). Social networking sites (SNS) as a tool for midwives to enhance social capital for adolescent mothers. *Midwifery*, 62, 119–127. DOI:10.1016/j.midw.2018.03.022
- Nolan, S., Hendricks, J., Williamson, M. & Ferguson, S. (under review). Building the construct of social capital in relation to adolescent mothers' use of social networking sites (SNS) to encourage salutogenic online approaches in midwifery. *Women and Birth*.

18/3/2019

I, as Primary supervisor of the candidate, endorse that this level of contribution by the candidate indicated above is appropriate.

A handwritten signature in cursive script, reading "Joyce Hendricks", with a horizontal line underneath the name.

18/3/2019

# **Chapter One: Context and Background**

## **1.1 Introduction**

Becoming a mother during adolescence is considered a worldwide public health concern with costs to both individuals and society (World Health Organization [WHO], 2018). This study explored the use of social networking sites (SNS) by West Australian adolescent mothers as a supportive tool to build social capital. Consequently, it enhanced an understanding of a generation of mothers who may not have experienced anything other than a digitally connected existence. It also sought to explore the perceived capacities of midwives to enhance social capital for adolescent mothers in a society with an ever-increasing digital landscape. Currently, guidance provided to health professionals focuses on appropriate use of SNS and the Internet in terms of maintaining professional boundaries, adhering to policies and protecting the rights of individuals receiving care (Australian Health Practitioner Regulation Agency [AHPRA], 2017; Nursing and Midwifery Board of Australia [NMBA], 2014; Nursing and Midwifery Council, 2017). There is limited information regarding healthcare professionals' use of social media to enhance health outcomes and reach out to marginalised or vulnerable groups such as adolescent mothers. It is timely to consider innovative ways to share information, promote health and navigate supportive relationships with adolescent mothers within a digitally driven society.

This chapter introduces key concepts used in this thesis and then positions the study within the background context of scholarly literature pertaining to adolescence, adolescent motherhood, social support, social capital and social media use. It provides justification for the study and introduces a methodology that will address the gaps in

knowledge that were identified following careful consideration of the background context and having undertaken a structured literature review.

## **1.2 Context**

Adolescence is a period of major physical, psychological and emotional transformation, as well as significant change in social interactions and relationships. Consequently, many adolescents have a strong need to belong to a group, with peer approval or ‘crowd membership’ becoming increasingly important, particularly as fear of exclusion or marginalisation takes hold (Scott & Saginak, 2016, p. 377). Naturally, motherhood presents challenges for people of any age, but when added to the complex nature of adolescent development, it can become extremely difficult (Australian Institute of Health and Welfare [AIHW], 2018; DeVito, 2010; Marino, Lewis, Bateson, Hickey & Skinner, 2016; Shea, Bryant & Wendt, 2016). Although twenty-first century mothers are often bombarded with expert advice and societal expectations of motherhood (Henderson, Harmon & Newman, 2016; Wardrop & Popadiuk, 2013), they may miss out on the informal support that parents half a century ago received from neighbours and extended family (Social Issues Research Centre, 2011). Indeed, global outcomes on a range of peripartum measures are substantially worse for adolescent mothers and their babies than for non-adolescent mothers (Marino et al., 2016; Tridenti & Vezzani, 2017; WHO, 2018).

In developed Western countries, significant long-term risks for adolescent mothers include depression, rapid repeat pregnancy and economic disadvantage (Marino et al., 2016). World Health Organization (2018) figures demonstrate that babies born to adolescent mothers are almost twice as likely to be stillborn or die during infancy than those born to mothers over 19 years of age. This is mostly attributed to complex risks associated with birth prematurity, low birth weight and reduced access to antenatal care (AIHW, 2018; Ganchimeg et al., 2014). Children of adolescent mothers are also more

likely to face long-term consequences of low birth weight and preterm delivery (Ganchimeg et al., 2014), with increased potential for developmental, behavioural, emotional and cognitive disadvantages (Falster et al., 2018; Lee et al., 2017; Morinis, Carson & Quigley, 2013).

In relation to parenting, adolescent mothers have been found both to parent using harsher and less supportive parenting techniques when compared to older mothers (Lee, 2009; Lewin, Mitchell & Ronzio, 2013) and to be less involved in positive ‘play’ interactions with their infants (Crugnola, Ierardi, Gazzotti & Albizzati, 2014). Thus, children of adolescent mothers are more likely to experience less favourable outcomes related to long-term health and development, educational attainment and social outcomes such as increased welfare dependence and adolescent parenthood in their own lives (Department of Health, 2010; Falster et al., 2018; Jutte et al., 2010; Shaw, Lawlor & Najman, 2006). However, if young mothers receive high-quality and culturally appropriate maternity services, including appropriate psychosocial support, many of the adverse outcomes associated with adolescent pregnancy and parenting can be ameliorated for both mother and child (deCastro, Hinojosa-Ayala & Hernandez-Prado, 2011; Department of Health, 2010; Marino et al., 2016; Price-Robertson, 2010; Ruedinger & Cox, 2012; Smyth & Anderson, 2014).

Rates of adolescent pregnancy in Australia have steadily declined since the turn of the millennium. At a national level, the adolescent fertility rate decreased between 2005 and 2015 from 17.5 to 11.4 babies for every 1,000 women aged 15–19 years. Although, the rates differ significantly among Australian states and territories, rates of adolescent pregnancies are far higher in Aboriginal and Torres Strait Islander communities than in communities of non-Indigenous Australians (AIHW, 2018). Births to women aged 15 years or younger are now included in this 15–19-year age group for national statistical

purposes. Hence, in 2012 and 2015 respectively, there were 1,413 and 1,114 births recorded in Western Australia (WA) to mothers aged 19 and under (Australian Bureau of Statistics [ABS], 2014, 2017).

The literature suggests adolescent mothers often require additional support compared to non-adolescent mothers both to remain socially included and to return to education or employment following the birth of a baby (Logan & Deane, 2016; Oxford, Lee & Lohr, 2010). This may be because adolescent mothers face the dual challenge of adapting to their maternal role whilst navigating their complex stage of cognitive and social development (DeVito, 2010). Subsequently, adolescent mothers often experience feelings of isolation in addition to severe economic and social strain (Marino et al., 2016; Mollborn & Jacobs, 2012). In relation to health effects, adolescent mothers frequently report elevated levels of stress associated with their parenting roles and experience postnatal depression (PND) at almost twice the rate of older mothers (Aitken et al., 2016; Reid & Meadows-Oliver, 2007; Yozwiak, 2010). In addition to the identified need for quality maternity service provision, research has consistently found that support from partners, family, peers and professionals is correlated with better postpartum adjustment for adolescent mothers (Angle, Divney, Magriples & Kershaw, 2015; Brown, Harris, Woods, Buman & Cox, 2012; Hudson et al., 2016; Keys, 2008; Whiteley & Brown, 2010). Indeed, social support as a concept is often separated into perceived or enacted forms such as tangible, emotional, appraisal and informational support (Gottlieb & Bergen, 2010; House, Kahn, McLeod & Williams, 1985), all closely linked to the notion of social capital.

Parenting programs intended to increase levels of social support for adolescent mothers are recognised as valuable resources (Barlow et al., 2011; Dickinson & Joe, 2010; McGeechan, Baldwin, Allan, O'Neill & Newbury-Birch, 2018; Mills et al., 2013;

Muzik et al., 2016; Sadler et al., 2007), however, face-to-face programs often fail to address the multidimensional problems many adolescent mothers experience, including limited access to transport and finances. Such constraints, alongside a lack of local service provision, often become logistical barriers to these mothers' attendance at parenting programs (Barnes & Stuart, 2016; Keys, 2008). Nurses and midwives have also initiated home-visiting and school-based programs to increase support for adolescent mothers, often with inconclusive results in terms of efficacy and outcome improvement (Quinlivan, Box & Evans, 2003; Robling et al., 2016; SmithBattle, Loman, Chantamit-o-pas & Schneider, 2017; Strunk, 2008). Therefore, it seems rational to consider whether the Internet may provide more accessible and efficacious platforms of support for adolescent mothers.

Internet use is well entrenched in daily life, for example, around 18 million Australians in approximately 86 per cent of all households actively engage in its use (ABS, 2018; Nielsen, 2015). In relation to adolescents, ABS (2018) statistics reported that 99 per cent of Australian 15-17-year olds regularly use the Internet through a variety of mobile devices, with 91 per cent of this age group commonly engaging in SNS use. In WA, almost a quarter of adolescents in 2012 were reported to spend at least four hours a day online participating in non-school-related activities (Dooley & Scott, 2012). With increased and virtually constant access available to many Australians, the Internet can be likened to a form of social connection for those embarking on a new life experience or journey such as parenthood, especially when seeking information, guidance or support from those with a shared understanding. A plethora of information related to SNS certainly exists for adolescents experiencing similar medical conditions or hardships, often with a commonly reported sense of community among these connected individuals (Ahola Kohut et al., 2018; Gowen, Deschaine, Gruttadara & Markey, 2012; Letourneau et

al., 2012; Mogi et al., 2017; Shoebbotham & Coulson, 2016; Stewart, Masuda, et al., 2011).

Notably, almost 80 per cent of Internet users seek health information online (McDaid & Park, 2010). A report by McDaid and Park (2010) indicated at least six in 10 Australians make some use of the Internet to search for advice on health, therapeutic treatments or medical conditions. Those anticipating parenthood (including pregnant adolescents) often use the Internet to find information related to pregnancy and parenting, as well as to receive advice or support from peer or professional sources (Cowie, Hill & Robinson, 2011; Harpel, 2018; Lima-Pereira, Bermúdez-Tamayo & Jasienska, 2012; Niela-Vilén, Axelin, Salanterä & Melender, 2014; Nikolova & Lynch, 2015). Moreover, both rural and non-rural Australian adolescent mothers (Logsdon et al., 2014; Logsdon, Mittelberg & Myers, 2015) and new mothers in rural areas in the United States (US) (Potnis & Halladay, 2018) have been reported to seek health information using both the Internet and social media platforms. Internet information-seeking has become increasingly popular, facilitated by the convenience and constant access provided by mobile devices such as smartphones that are owned by a clear majority of adolescents (Lenhart, 2015; Australian Communications and Media Authority, 2016). It must be noted, however, that some information found on the Internet and shared using social media may be considered inaccurate and, as such, potentially unhelpful in terms of health promotion (Collier, 2018; Sommariva, Vamos, Mantzarlis, Đào & Martinez Tyson, 2018; Vogel, 2017). Moreover, Bratu (2018) considers that despite the widespread accessibility of online health information in this digital era, few individuals have the comprehension to decipher medical research and consequently find themselves at the mercy of advertisers selling unwarranted advice, enhancements, remedies and treatments.

In terms of accessibility, the current ‘explosion’ of online social networking has completely altered the fundamental dynamics of social contact and social support provision (Boyd & Ellison, 2007). Online networks enable mass social interaction without the traditionally associated constraints of time or distance, thus potentially affording adolescent mothers enhanced social support and assisting with building social capital. Social support groups that can be accessed in an online context may pose fewer accessibility barriers and should be considered when planning future services for adolescent mothers. For example, Facebook groups have demonstrated to be effective forums for adolescents and young adults with depression or anxiety to disclose feelings, seek support from like-minded peers, share informational resources and reduce social isolation (Bonetti, Campbell & Gilmore, 2010; Gowen et al., 2012; Lerman et al., 2017). Therefore, this platform may play a beneficial role in the often-complex adaptation to parenthood and the inclusion of adolescent mothers.

Recent research in relation to parenthood suggests informational and relational continuity of midwifery care can be facilitated within professionally moderated Facebook groups for general populations of new mothers (McCarthy, Choucrist, Ormandy & Brett, 2017). Midwives have unique potential to influence maternal health by ensuring all women have access to safe and high-quality maternity services that address their physical, emotional, spiritual, psychological, cultural and social needs (International Confederation of Midwives, 2014). Midwives also have a vital role in the communication aspects of care that involve liaising and case consultation with other members of wider healthcare teams (NMBA, 2018). Consequently, midwives are in an ideal position to provide tailored advice, inclusive support and to interact with services that affect both young women’s and their children’s health outcomes. Hence, it is important that midwives explore innovative ways to influence adolescent maternal health.

SNS as platforms of support deserve consideration as components of future models of health care. The widespread and timely access to, as well as cost-effective nature of, online support should be considered when reforming traditional models of health care delivery, particularly for those who do not engage with traditional face-to-face approaches, such as adolescent mothers. Although research into online health care provision is still in its infancy, there are clear indications of the potential of online health change and support interventions (Balatsoukas, Kennedy, Buchan, Powell & Ainsworth, 2015; Korda & Itani, 2013; Maher et al., 2014; Rice et al., 2014), particularly for vulnerable individuals (Thomas, Foley, Lindblom & Lee, 2017). Before continuing with an introduction to the study, a discussion of background issues specific to this group of mothers and the related concepts of social support, social capital and social media engagement is warranted.

## **1.3 Background**

### **1.3.1 The challenges associated with parenting during adolescence**

In Western society, adolescence is recognised as a time of potential turbulence in relation to physical, emotional and social changes that occur as children transition towards adulthood (Curtis, 2015). Feelings of social isolation, depression and anxiety sometimes manifest, resulting in long-term ill health or social disengagement (Birchwood & Singh, 2013; Yung, 2016). For adolescents who find themselves pregnant or parenting, these effects are increasingly likely (WHO, 2018). World Health Organization (2018) figures demonstrate that while there has been a marked decrease in births to adolescent mothers since the 1990s, adolescent pregnancy remains a major contributor to maternal and child mortality and to intergenerational cycles of poverty and ill health.

Adolescent mothers are significantly more likely to experience depression both during pregnancy and following childbirth (Coelho et al., 2013; Department of Health,

2010; Kleiber & Dimidjian, 2014; Reid & Meadows-Oliver, 2007; Yozwiak, 2010), which is concerning, as perinatal depression is often associated with decreased maternal support (Biaggi, Conroy, Pawlby & Pariante, 2016; Cox et al., 2008). It has been shown that adolescents often overestimate their levels of support prior to birth, resulting in dissatisfaction during the postnatal period (Quinlivan, Luehr & Evans, 2004).

Motherhood often involves transitions in existing mother–daughter relationships (Sheeran, Jones & Welch, 2015), particularly for adolescents (Jacobs & Mollborn, 2012). For example, Reid and Meadows-Oliver (2007) found that family conflict, fewer social supports and low self-esteem were associated with increased rates of depressive symptoms in adolescent mothers during the first postpartum year. Although individual factors contribute to this, levels of social support and self-esteem are regarded as highly predictive indicators of depressive symptoms among adolescent mothers (Anglely et al., 2015; Brown et al., 2012; deCastro et al., 2011; Pires, Araújo-Pedrosa & Canavarro, 2014; Umaña-Taylor, Guimond, Updegraff & Jahromi, 2013). Consequently, adolescent mothers often require additional support to remain socially included after becoming pregnant (Boulden, 2010), and this support may protect or enhance their health status.

### **1.3.2 The importance of social support**

Social support is a broad, multidimensional concept, often measured in terms of being either perceived or enacted and as having multiple components that may include tangible/instrumental, emotional, appraisal and informational forms of support (House et al., 1985; Mason, 2016). Despite the lack of a universal definition, social support has been studied extensively in health care literature and has been consistently demonstrated to improve psychological health outcomes for mothers (Emmanuel, Creedy, St John & Brown, 2011; Leahy-Warren, McCarthy & Corcoran, 2012; McGeechan et al., 2018; Negron, Martin, Almog, Balbierz & Howell, 2013). Generally, belonging to a group may

not only provide psychological benefits, but may also significantly improve physical health and an individual's perception of their overall health and capability (Greenaway et al., 2015; Hale, Hannum & Espelage, 2005). Policy initiatives aimed at tackling social exclusion and health inequality faced by adolescent mothers, such as those implemented under the United Kingdom (UK) Department of Health's (2010) Teenage Pregnancy Strategy, work to build coordinated support mechanisms that affect health improvements and build social capital. However, McLeod, Baker and Black (2006) attested that many historical approaches to improving support provision neglected to provide adequate opportunities for young parents to build effective peer-support networks and that this may have ongoing health implications. Indeed, social support is strongly linked to improved mental health and it has long been argued that nurses and midwives should prioritise social support facilitation as an intervention strategy (Finfgeld-Connett, 2005; Leahy-Warren et al., 2012).

### **1.3.3 Support from online sources**

Since its introduction, an explosion of growth and popularity in the phenomenon of online social networking has occurred (Wilson, Gosling & Graham, 2012). Using social media sites is among the most common activity of modern children and adolescents, which has completely changed how many now interact socially and gather information (ABS, 2018; Anderson & Jiang, 2018; Lenhart, Purcell, Smith & Zickuhr, 2010; Raacke & Bonds-Raacke, 2008). Any website that allows social interaction is considered a social networking site (see pxiv), including Facebook, Instagram, Snapchat, Google+, LinkedIn and Twitter. These SNS are a form of virtual community attracting millions of young users worldwide, many of whom have integrated the uses of these sites into their daily routines (Anderson & Jiang, 2018; Dooley & Scott, 2012; Green, Brady, Ólafsson, Hartley & Lumby, 2011; Lenhart, 2015). In particular, Facebook (2019)

continues to dominate the social media sphere; with approximately 1.52 billion daily active users in December 2018 and availability in over 70 languages. While Instagram and Snapchat are reportedly growing in popularity (especially for younger audiences), adolescents in lower income families still report preferences for the communicational and relational features of Facebook (Anderson & Jiang, 2018; Micheli, 2016). Furthermore, Facebook remains the only SNS conducive to creating large closed-access groups with dedicated group pages which may highlight its ongoing relevance to adolescent mothers seeking peer-orientated support; although both Instagram and Snapchat have recently facilitated group-messaging channels through Instagram Direct and Snapchat Group Chat features. Ultimately, social networking services facilitate users to gather together as an online community, building connections to current personal relationships (such as friends and family) and helping users meet new people for friendship, activities, professional networking, or even romance (Lenhart et al., 2010).

#### **1.3.4 Online support and its relation to social capital**

Social support is a concept linked closely to social capital. Researchers have demonstrated the value of online networking in increasing both constructs for mothers (McDaniel, Coyne & Holmes, 2012; Nikolova & Lynch, 2015) and in providing effective social support to many other individuals who find themselves marginalised from mainstream society (Barnfather, Stewart, Magill-Evans, Ray & Letourneau, 2011; Ceglarek & Ward, 2016; Gowen et al., 2012; Notley, 2009). Research focused on marginalised youth suggests more positive than negative influences on mental health and wellbeing can be afforded by SNS use (Ceglarek & Ward, 2016; Notley, 2009), and this research may prove pertinent when caring for adolescent mothers. Moreover, when researchers examine motivations for Internet use they tend to establish a positive link between interactive social media such as SNS and resultant social capital (Raacke &

Bonds-Raacke, 2008; Ryan, Allen, Gray & McInerney, 2017; Verduyn, Ybarra, Résibois, Jonides & Kross, 2017). Many also find that online communication is primarily used to sustain existing local friendships already established offline, rather than to make new contacts with strangers (Boneva, Quinn, Kraut, Kiesler & Shklovski, 2006; Ellison et al., 2007; Reich, Subrahmanyam & Espinoza, 2012). Essentially, this evidence undermines the distinction between online and offline communication and suggests they complement each another and enhance communication within existing relationships potentially building social capital.

Social capital is a compound and complex construct, an umbrella term under which social cohesion, social support, social integration and participation are often bound together. Social capital is considered to influence the functioning of social communities in a variety of ways, ranging from preventing crime and juvenile delinquency, promoting successful youth development, enhancing levels of schooling and education to encouraging political participation (Kawachi, 1999). In addition, social computing has changed everyday life in all aspects. People have been shown to use SNS to communicate and express their political opinions (Ji, 2010), and platforms such as Facebook and Twitter became integral components of national election campaigns such as those of Obama and Romney in the 2012 US presidential elections (West, 2013).

The concept of social capital dates to early development of social theory by sociologists such as Weber and Durkheim. Notably, Bourdieu (1986) described social capital as certain features of social relationships, such as levels of interpersonal trust, norms of reciprocity and mutual aid, which facilitate collective action for mutual benefit. In particular, Coleman (1988) is viewed by many as having developed the theoretical framework of the concept, linking social capital to social structure and relationships and to the achievement of goals that could not be gained in its absence. Putnam (2000a), who

also contributed significantly to social capital theory, described it as the features of social organisation, such as networks, norms and trust that facilitate coordination and cooperation for mutual benefit. Putnam (2000a, 2000b) further examined the decline of social capital in the US, and his publications, including *Bowling Alone: The Collapse and Revival of American Community* (2000), are still widely quoted by modern social theorists when exploring the concept and constructs of social capital.

Despite there still being no single definition of social capital, the quality of social relationships between individuals is commonly referred to as social capital. To summarise the work of Bourdieu (1986), Coleman (1988) and Putnam (2000a), social capital can be conceptualised as the resources invested into and produced by social networks, and their value for individuals, groups and societies alike. Current definitions of social capital often appear complex and hard to relate to, particularly in terms of health care service provision. Hence, this study aimed to explore the construct of social capital in relation to adolescent mothers' use of SNS to make the concept more understandable, relevant and applicable in an era dominated by digital communication.

Two distinct forms of social capital identified by Putnam (2000a) continue to measure the social ties between individuals and informal groups in modern literature. The first is bonding capital, which refers to strong ties with trusted others such as family, close friends and peers (Notley & Foth, 2008; Putnam, 2000a). The second is bridging capital, which relates to the weaker but further-reaching ties between individuals and groups such as work associates and casual acquaintances (Putnam, 2000a). A concern articulated in early SNS-related literature was that bonding social capital was being sacrificed for bridging social capital, thus, resulting in less emotionally and satisfying social engagements and ineffective support provision (Davies, 2003; Flew, 2005). However, more recent research suggests close relationships and support networks can

instead be strengthened by SNS engagement and interaction (Burke & Kraut, 2014; Burke, Marlow & Lento, 2010). Admittedly, Burke et al. (2010) acknowledged that not all SNS engagement is considered positive in terms of wellbeing, particularly warning about passive SNS use by which individuals view others' profiles without actively 'posting' or sharing information. Simply, social capital is the personal and societal benefits that are experienced by having social relationships with others, although a lack of consensus on measurements for social capital makes it difficult to compare studies, particularly across social groups (Acquaah, Amoako-Gyampah, Gray & Nyathi, 2014; Choi et al., 2014).

Many studies to date that have explored the potential value of SNS use in direct relation to building social capital have focused mainly on tertiary education student populations (Cheung, Chiu & Lee, 2011; Ellison, Steinfield & Lampe, 2007; O'Dea & Campbell, 2011; Steinfield, Ellison & Lampe, 2008; Valenzuela, Park & Kee, 2009; Zhang, 2017). However, tertiary education students are arguably already likely to have high levels of existing social capital (Nie, 2001), which limits the ability to apply findings to other societal groups, particularly those marginalised from the mainstream. It is suggested that the positive effects of SNS use are potentially even greater for adolescents who are marginalised or isolated, particularly sexual minority youths or those experiencing anxiety or mental illness (Barker, Freeman & Pistrang, 2008; Ceglarek & Ward, 2016; Edens, 2011; Lerman et al., 2017). In addition, Tynes (2007) asserted that SNS use provides many educational benefits to youth by fostering learning and critical-thinking skills through the process of personal profile creation, which complements those taught in schools. Educators and advocates of digital literacies are also confident social networking encourages the development of transferable technical and social skills of value in both formal and informal learning (Ito et al., 2008; Jenkins, Purushotma, Weigel,

Clinton & Robison, 2009; Selwyn, 2007). These SNS-related benefits may assist adolescent mothers, who are not only at identified risk of PND (Kleiber & Dimidjian, 2014) which may limit self-development opportunities, but who also historically self-identify their need for both increased social support and formal education (Stiles, 2005).

SNS use has also been shown to facilitate wellbeing during times of adolescent transition which may prove pertinent to those transitioning to motherhood. It has been suggested that SNS use assists adolescents to establish identity, explore opinions, remain socially connected, find comfort and support and make new friends as they navigate the transition from primary to high school or to tertiary education facilities (Clarke, 2009; Green et al., 2011; Pempek, Yermolayeva & Calvert, 2009). Further, Clarke (2009) discovered SNS use enables adolescents to maintain existing friendships and reduce feelings of loneliness and disconnection in ways never previously possible when relocating home or school or moving overseas. Lenhart and Madden (2007) also identified that SNS use helps adolescents manage their friendships, in that 91 per cent of those using such platforms said they help them stay in touch with friends they see frequently, while 82 per cent used SNS to remain connected with friends they rarely see in person. The premise of relationship creation or maintenance inherent in such activity facilitates interactions between existing members of a social circle or by connecting people with similar or shared interests (Ellison et al., 2007), both of which harness potential benefits during times of significant change or transition, such as motherhood.

In addition to these benefits, adolescents and young adults have been shown to utilise SNS to access a range of health information, with approximately 17 per cent of those online having accessed digital information about highly sensitive topics such as depression and other mental health problems, violence, drugs and alcohol use (Lenhart et al., 2010). Although adolescents are often reluctant to disclose personal health concerns

to others due to embarrassment or lack of knowledge regarding where to access services and information (Yung, 2016), social media has been demonstrated to reduce these encumbrances, providing accessible and timely information sharing in a relatively anonymous forum (Gray, Klein, Noyce, Sesselberg & Cantrill, 2005; Ralph, Berglas, Schwartz & Brindis, 2011). Moreover, Valkenburg and Peter (2009) suggested relationships and social connectedness can be strengthened by engagement in online forums by a process of enhanced self-disclosure, with such online efforts being thought to reduce inhibition and facilitate the communication of personal topics that are not easily disclosed face to face, such as worries, concerns and vulnerabilities.

These findings may prove beneficial for adolescent mothers who are worried or concerned about their parenting, particularly if they can be encouraged to communicate with others in online forums. Interestingly, Moreno (2010) found targeted health interventions through SNS have the potential to reduce risk-taking behaviours among adolescents and young adults and provide an opportunity for health professionals to deliver selected interventions tailored specifically to young people's needs. The use of SNS as an outreach tool for the provision of sexual health information to adolescents has been evaluated as a potentially valuable addition to mainstream sexual health services (Ralph et al., 2011) and online interventions targeted at reducing depressive symptoms in adolescents have also proved successful (Lattie et al., 2017). These studies both outline the potential of social media as an effective intervention delivery tool when working with adolescents and highlight the need for midwives to consider SNS when providing valuable support interventions to adolescent mothers.

In terms of its potential as an intervention tool, Facebook has been shown to provide a readily accessible portal for patients, carers and healthcare professionals to share their experiences of investigation, diagnosis and management of disease (Colineau

& Paris, 2010; Saffran et al., 2016). The use of SNS has been widely demonstrated to provide valuable social support to individuals diagnosed with various medical conditions (Holbrey & Coulson, 2013; Imai, 2016; Mohd Roffeei, Abdullah & Basar, 2015; Shoebbotham & Coulson, 2016), with multiple organisation-specific SNS being created especially for youth experiencing illness and disability (Letourneau et al., 2012; Mogi et al., 2017; Nicholas et al., 2009; Stewart, Barnfather, Magill-Evans, Ray & Letourneau, 2011; Stewart, Masuda, et al., 2011; Zhang, He & Sang, 2013). These groups often feel socially isolated and significantly different from their peers (Lambert & Keogh, 2015), yet in these studies, online environments have been shown to create a safe space to foster reciprocal interpersonal connections and appropriate social comparison, which are particularly important for those with specific conditions or disabilities and potentially for adolescent mothers.

Social inclusion and exclusion are concepts that relate to the ideals of feeling socially involved and connected. They are concepts with varied definitions worldwide, but that have central constructs that encompass both. The general trend over recent decades has been to conceive social exclusion as distinct from income poverty because exclusion is commonly related to reduced social and political participation, access to services and supports, economic opportunities and community solidarity, rather than simply distribution of wealth or economic deprivation (Hayes, Gray, Edwards & Australian Institute of Family Studies, 2008). Social inclusion is also the focus of many policies initiated by the Australian Government, particularly the Australian Social Inclusion Board (2010), to ensure all people have the necessary resources, opportunities and capabilities to contribute to and share in the benefits of the nation's success and to participate fully in society. Indeed, social inclusion has been strongly linked to notions of

increased social capital and, in the view of Putnam (2000a) a socially inclusive society is high in social capital.

Specifically created SNS are demonstrated to facilitate social inclusion by significantly reducing feelings of isolation and loneliness for group members (Letourneau et al., 2012). Organisations that support young people with conditions such as diabetes, asthma, allergies and kidney disease have found young people gain confidence and a sense of normality by engaging in online support groups with others experiencing the same circumstances (Ahola Kohut et al., 2018). For example, the Facebook page ‘Ninjabetic’ (2018) is a successful case of an online National Health Service initiative for youth diagnosed with diabetes. While being an adolescent mother is not considered ‘a condition’, their experiences of social isolation are arguably similar, and they may benefit from similar organisational approaches. Hence, it is important to explore and understand the use of SNS by adolescent mothers in terms of building social support and social capital. Further, digital technology is currently being used for research, education and fundraising (Farmer, Bruckner Holt, Cook & Hearing, 2009; Levine et al., 2011; Moffatt & Eley, 2010), particularly as researchers have recognised Facebook’s potential as both a tool for observational assessment and as a prospective recruitment strategy (Kapp, Peters & Oliver, 2013; Wilson et al., 2012), particularly for adolescent mothers (Logsdon, Rushton, Myers, Gregg & Bennett, 2015).

Conversely, it must be noted that there remains an ongoing lack of clarity as to whether such SNS use affects social support or vice versa, or if both aspects play a role (Meng, Martinez, Holmstrom, Chung & Cox, 2017). While controversy still exists about the potentially paradoxical nature of social connectedness and social media (Allen, Ryan, Gray, McInerney & Waters, 2014), several research studies support the use of online SNS interaction as a strategy for building social capital, particularly for at-risk adolescents

facing marginalisation or social exclusion (Bannon et al., 2015; Gross, 2009; Notley, 2009). In terms of working effectively with at-risk youth, the potential for integrating social media use was highlighted in a case study by Dekelver, Van den Bosch and Engelen (2011). They reported on the experiences of social work organisations in four different European countries and their successful attempts to integrate the use of social media to support their youth-oriented efforts. This evidence suggests that SNS and digital technology yield enormous possibility to enhance social inclusion, with youth in the study demonstrating enhanced engagement with social work services and peers and enhanced skill development relating to use of digital technologies (Dekelver et al., 2011). These benefits, for individuals and service providers alike, suggest that the potential for digital technologies to enhance social inclusion and service engagement are likely to continue to be discovered in the future.

Despite positive findings, Dekelver et al. (2011) found some organisations were apprehensive to promote the use of currently available social media tools due to concerns such as loss of privacy and cyberbullying. To overcome identified concerns, Dekelver et al. (2011) established a case for individual organisations to create custom-built social networking tools appropriate for their specific service and clientele. Despite such concerns, nationally recognised associations such as the Australian Breastfeeding Association (ABA) and Sands Australia have created widely accessed Facebook support groups for parent members (Australian Breastfeeding Association, n.d; Sands, n.d). Bridges (2016) demonstrated that support groups linked to reputable agencies like the ABA provide members support, information and guidance from within a trusted community. Researchers also suggest that due to mothers' preferences for seeking health-related information in an online context (Ireson, 2015; Poetri, Suzianti & Pradila, 2017), web-based platforms may be considered suitable environments for the dissemination of

midwifery information to mothers during their childbearing journey. Moreover, Wartella, Rideout, Montague, Beaudoin-Ryan and Lauricella (2016) deem it fundamental to tailor health care information and support interventions to reflect the digitally connected ways adolescents navigate their health and social needs. An overview of concerns highlighted in the literature in relation to SNS use will now be discussed.

### **1.3.5 Concerns identified in the literature**

With the meteoric rise of SNS such as Facebook, social scientists have attempted to assess their effect on social life. As previously demonstrated, SNS are often recognised as a potentially valuable medium for the provision of informational and social support, with adolescents' use of such tools receiving considerable attention in recent years from academics, policymakers and journalists concerned with the potentially detrimental effects of increased social media use. While this background review focuses on the capacity of SNS to build social capital, it would be remiss not to acknowledge some of the highlighted concerns. Those most within mainstream media are based on the safety of individual users, including loss of privacy, cyberbullying (Dempsey, Sulkowski, Nichols & Storch, 2009; Hamm et al., 2015; Kowalski, Limber & Agatston, 2012), harassment and sexual solicitation, exposure to potentially harmful content including personal contact lists and theft of personal information (Hodgkinson, 2008; Koloff, 2008; Wüest, 2010). These fears also extend to sexual, social and emotional wellbeing as well as loss of self-esteem (Cookingham & Ryan, 2015; Pea et al., 2012).

Following the introduction of SNS in the 1990s, researchers believed their use would lead to a reduction in adolescents' social connectedness and wellbeing (Kraut et al., 1998; Nie, 2001). While these effects were consistently demonstrated at the time, Internet access and use has since changed considerably, with SNS access now widely available on mobile phones and other portable devices, thus, affording adolescents the

ease and ability to maintain their social networks outside the confines of a home environment. Notably, the Australian Communications and Media Authority (2016) reported that 80 per cent of all Australian adolescents aged between 13–17 years in 2015 were using smartphones to access the Internet. Currently, this is the case for 95 per cent of adolescents in the US (Anderson & Jiang, 2018).

The quality of online interaction compared to face-to-face communication with peers is still identified as an area of concern due to the potential risk of social isolation. In a US study by Pea et al. (2012) examining the use of modern media and social wellbeing in young girls, a link was discovered between negative social wellbeing and use of media such as mobile phones and SNS communication. Essentially, the study suggested face-to-face communication was most strongly tied to positive social wellbeing. Excessive media immersion has also been suggested to create psychological dysfunctions such as sleep deprivation, attention and cognitive disorders, online compulsive disorders and addiction (Espinoza & Juvonen, 2011; Walsh, 2011). In an Australian context, Green, Olafsson, Brady and Smahel (2012) found excessive Internet use tends to peak at around 13 years of age and diminish towards age 16 years, thus, attesting that for most individuals this period of excessive use causes no long-term harm. Others have argued that the effect of social media use on the mental health outcomes of adolescents is contradictory and further research is needed (Best, Manktelow & Taylor, 2014; Cookingham & Ryan, 2015; Hamm et al., 2015).

By the nature of its online delivery, cyberbullying extends its boundaries well beyond the traditional confines of schoolyards (Hinduja & Patchin, 2014). It is a complex technology-related behaviour that has potentially devastating effects on a young person's wellbeing and mental health (Campbell et al., 2017; Cassidy, Faucher & Jackson, 2013). However, a comprehensive review of cyberbullying undertaken in 2015 reported that the

effects attributed to such behaviour are unclear and often complex, thus further research is needed (Hamm et al.). In terms of self-protection, Patchin and Hinduja (2010) found adolescents were becoming increasingly aware of the risks associated with loss of privacy caused by online personal disclosure, with many refusing to share private contact details or total personal information online, thus, limiting their online profiles to 'private'. However, contradictory data continued to suggest adolescents were sharing more private information online than ever before (Madden et al., 2013), which along with other negative effects, is of continued concern.

Anxiety surrounding online interaction also includes its subsequent effect on one's emotional wellbeing and self-esteem. Acar (2008) demonstrated the inclusion of strangers in adolescents' online social networks can negatively affect self-esteem and damage psychological wellbeing. Moreover, recent research suggests the social comparisons inherent in SNS interactions may negatively affect the mental health of new mothers (Coyne, McDaniel & Stockdale, 2017), although the study does not focus on the motivation for SNS use or provide context in terms of support-seeking behaviour. Increasing knowledge around cyber safety may eventually allow the benefits of SNS use to outweigh any potential risks. Service providers choosing to advocate such activity or provide online interventions may need to consider educating users regarding online safety measures. Nonetheless, an exploration of the negative effects of SNS use is beyond the purview of this study, which instead focused on their positive influences in relation to building social capital. It is for this reason that this chapter does not provide a critique of all the negative effects associated with SNS use.

### **1.3.6 Summary of background literature**

Studies that explore mothers' motivations in seeking agency and support from other mothers online have demonstrated social media's ability to provide a sense of

allegiance and reduce social isolation (Morris, 2014; Saha & Das, 2017; Valtchanov, Parry, Glover & Mulcahy, 2016). Online networking has been demonstrated to contribute to the development and maintenance of meaningful relationships and connections that may not otherwise be possible in an offline context due to challenges relating to life transitions, distance, disability or minority status (Bannon, McGlynn, McKenzie & Quayle, 2015; Bridges, 2016; Kujath, 2011; Obst & Stafurik, 2010; Pedrana et al., 2013). Recent research also suggests SNS interactions are so multifaceted that individual platforms and intentions must be explored before any accurate associations can be made between their use and their effects on mental wellbeing (Frost & Rickwood, 2017). Although concerns regarding the daily adaptive functioning of adolescents and their SNS habits will undoubtedly remain under investigation, the positive associations between wellbeing and SNS use are pertinent when exploring ways to enhance social support and social capital for vulnerable or socially isolated groups of women, including adolescent mothers.

Overall, adolescence is often a complex period of transition by which some individuals or groups (including those experiencing relocation, mental illness, medical conditions or disabilities, sexual minority youth and adolescent mothers) can experience marginalisation and feelings of social isolation. The evidence summarises a wide range of quality research studies that suggest SNS use, despite acknowledged concerns, may deliver many individuals a wide range of psychosocial, developmental and educational benefits associated with social capital, particularly for those seeking support and social comparison. While an overview of empirical research on the thesis topic is provided, there are inevitably articles and resources that have not been reviewed due to the vast quantity of academic literature surrounding SNS and social media use that has eventuated during this period. This study is needed to enhance an understanding of the social capital

inherent in adolescent mothers' SNS habits to further enable midwives and policymakers to harness positive social media applications with the aim of improving health outcomes. This study explores the potential of SNS to build social capital for adolescent mothers and support future midwifery-led services to address the needs of digitally connected adolescents.

#### **1.4 Justification for the Study**

Adolescent mothers and their children continue to experience less favourable short and long-term outcomes than non-adolescent childbearing women. The provision of adequate support has been shown to ameliorate many of the risks associated with parenting during adolescence. With support now widely accessible via SNS using mobile devices such as phones and tablets, it is important to explore any influence these platforms may have on the experiences of adolescent mothers in terms of building social capital. Moreover, it is timely to consider how this insight may be used by midwives to enhance tailored support provision for this group of mothers.

#### **1.5 Purpose of the Study**

The purpose of this study was to explore the experiences of adolescent mothers in relation to their SNS use as a tool to build social capital. It also aimed to consider midwives' capacities to lend parenting support to these mothers by integrating such platforms into midwifery practice.

#### **1.6 Significance of the Study**

This study is significant because an enhanced understanding of the capacity SNS bears as a tool to build social capital for adolescent mothers highlights the potential for innovative online extensions to midwifery-led models of care.

#### **1.7 Research Aims**

This study had three key research aims:

1. to generate new knowledge in relation to the values inherent in adolescent mothers' use of SNS, and how such use may influence their experiences as new parents,
2. to extend the understanding of SNS as a tool to build social capital for adolescent mothers,
3. to theorise innovative ways to provide midwifery support to adolescent mothers.

## **1.8 Research Intent**

This study intended to establish whether SNS use facilitates adolescent mothers to build social capital and influences their experiences of motherhood. Subsequently, the researcher resolved to use this knowledge to explore innovative ways to construct support for this group by exploring the perceived capacities of midwives to enhance social capital for adolescent mothers using SNS as integrated platforms of digital support.

## **1.9 Subsidiary Questions**

1. Does adolescent mothers' SNS use assist them to build social capital?
2. Do adolescent mothers consider that midwives could harness or enhance any social capital provided by their SNS activity?
3. Do midwives consider SNS as a tool to facilitate engagement with and provide support to adolescent mothers?

## **1.10 Methodology**

Narrative inquiry was chosen to guide this study for its ability to capture the essence of experience and to give voice to participants who may not otherwise be heard. Narrative research methods are firmly embedded in an interpretive paradigm, which is based on the ontological assumption that social reality is shaped by human experience and social context (Lincoln & Guba, 1985). Naturally, interpretive research facilitates the

interpretation of participants' realities through the study of experience, considered highly important when exploring the influence SNS use may have on the lives of adolescent mothers. Hence, in the seminal words of educational researchers Connelly and Clandinin (1990), narrative and life go together and so 'the principle attraction of narrative as method is its capacity to render life experiences, both personal and social, in relevant and meaningful ways' (p. 10). Clandinin and Connelly (1994) went on to write about narrative as stories, explaining experiences as stories that people live; thus, by telling stories, experiences may be validated, reaffirmed and take on new meaning. Narrative inquiry also facilitates flexibility and reflexivity within the research process, valuing iterative methods of data collection and analysis in turn (Creswell, 2013), particularly valuable when researching hard-to-reach groups such as adolescent mothers.

Adolescents are known to be an often-challenging group to research in terms of recruitment, retention and depth of response (Asheer, Berger, Meckstroth, Kisker & Keating, 2014; Pinto-Foltz, Logsdon & Derrick, 2011; Taylor, Pooley & Carragher, 2016); therefore, the use of a method that would expedite a sense of prompting in terms of ongoing participation, engagement and response was deemed necessary for success. Eliciting personal stories or narratives, while demonstrating a keen interest in subjects' mothering experiences, was considered crucial to the development of initial trust and rapport between mother and researcher. Despite these considerations the researcher experienced challenges during the research process which are discussed in chapters three and seven (see p70 & p153). Consequently, the use of a narrative approach facilitated a change in how data were collected and analysed.

The inherent ability to seek clarification, depth of response and sociocultural perspectives using narrative methods enables researchers to gain a deep understanding of phenomena under investigation and present findings in a vibrant and meaningful way

(Adama, Sundin & Bayes, 2016; Haydon & van der Riet, 2017). Therefore, facilitating mothers to tell their stories in all their richness and complexity was considered the most appropriate method to explore experiences of SNS use. Essentially, the researcher considered a narrative approach would facilitate the development of meaningful and contextual themes related to adolescent mothers' use of SNS. Moreover, that such themes would offer insight to midwives in relation to the relevance and impact of SNS use in the lives of adolescent mothers and encourage midwives to respond in terms of considering ways to optimise maternity service provision. Details about the research design, study phases, participants, methods, methodological rigour and relevant ethical considerations are discussed in chapter three.

### **1.11 Chapter Summary**

This chapter provided an overview of background literature related to the importance of social support for adolescent mothers, positioning the study within the wider context of knowledge surrounding adolescence, social capital and social media as a supportive platform. This chapter also provided an overview of the study, in which it was considered necessary and important to explore adolescent mothers' SNS habits and how this may inform midwifery practice. In an era of social media dominance, it was deemed appropriate to understand what, if any, influence or effect SNS use has on these mothers' experiences of motherhood and their capacity to build social capital. Importantly, knowing that adolescent mothers use SNS without understanding the inherent value and meaning behind this experience leaves fundamental gaps in knowledge. However, by understanding the value attributed to adolescent mothers' online interactions, care providers (particularly midwives) can properly consider how best to provide further support, which may, in turn, improve social-capital related outcomes for these mothers and their children.

## 1.12 Chapters to Follow

This thesis is presented to meet the requirements of a thesis with publication. The five papers presented in this thesis include four that have been published in high-ranking peer-reviewed journals. The papers are listed below in the order they appear in the thesis:

Nolan, S., Hendricks, J., Ferguson, S. & Towell, A. (2017). Social networking site (SNS) use by adolescent mothers: Can social support and social capital be enhanced by online social networks? — A structured review of the literature. *Midwifery*, 48, 24–31. DOI:10.1016/j.midw.2017.03.002

Nolan, S., Hendricks, J., Williamson, M. & Ferguson, S. (2018). Using narrative inquiry to listen to the voices of adolescent mothers in relation to their use of social networking sites (SNS). *Journal of Advanced Nursing*, 74(3), 743–751. DOI:10.1111/jan.13458

Nolan, S., Hendricks, J. & Towell, A. (2015). Social networking sites (SNS); exploring their uses and associated value for adolescent mothers in Western Australia in terms of social support provision and building social capital. *Midwifery*, 31(9), 912–919. DOI:10.1016/j.midw.2015.05.002

Nolan, S., Hendricks, J., Williamson, M. & Ferguson, S. (2018). Social networking sites (SNS) as a tool for midwives to enhance social capital for adolescent mothers. *Midwifery*, 62, 119–127. DOI:10.1016/j.midw.2018.03.022

Nolan, S., Hendricks, J., Williamson, M. & Ferguson, S. (under review). Building the construct of social capital in relation to adolescent mothers' use of social networking sites (SNS) to encourage salutogenic online approaches in midwifery. *Women and Birth*.

Chapter two presents an analysis of the literature relating specifically to the research question using a structured review process. This was undertaken to establish what was known about adolescent mothers using SNS, particularly in relation to garnering support or enhancing social capital. Chapter three concentrates on narrative inquiry, the methodological underpinnings and their influence on the methods used in this study, alongside their appropriateness to midwifery research that explores human experience and engages adolescent respondents. Chapter four introduces the participants of phase one of this study using stories, while chapter five presents the findings of phase one of the study in relation to adolescent mothers' use of SNS. Next, chapter six presents the findings of phase two of the study in relation to midwives' capacities to provide additional online support and to enhance social capital for adolescent mothers using SNS platforms. Finally, chapter seven provides a synthesis of findings from both phases of the study and explicates their value to midwifery practice. It also provides the conclusion to the thesis including the limitations of the study, implications for midwifery practice, and recommendations for practice, management, policy, education and research.

## **Chapter Two: Structured Literature Review**

### **2.1 Introduction**

Chapter two provides a structured review of literature related to adolescent mothers' use of SNS. In the previous chapter, the research question was posed; does SNS use facilitate adolescent mothers to build social capital and influence their experiences of motherhood. Consequently, literature pertaining directly to this question was reviewed and analysed. Literature relating more broadly to adolescents, adolescent mothers, social support provision and digital technologies/ social media is presented in the previous chapter to demonstrate depth and breadth of knowledge pertaining to the thesis topic. The search strategy (see Figure G.1, Tables G.1, G.2 & G.3) is documented using a 12-step structured framework recommended by Kable, Pich and Maslin-Prothero (2012). This framework provides guidance on how to conduct and write a comprehensive search strategy for a literature review. A structured review differs somewhat from a traditional literature review in that it focuses specifically on literature that relates to the research question rather than presenting a narrative of literature on a wider range of associated topic areas. A structured review of literature is a means by which critical, high quality literature, central to and underpinning the research topic, is rigorously and systematically mapped out (Tranfield et al., 2003) with an aim to synthesise prior research studies in a transparent and reproducible way to increase knowledge of the topic and inform both practice and policy.

This chapter highlights that, to date, studies relating to adolescent mothers' use of online social networks are mostly limited to message boards or software specific computer systems created for and distributed to small groups of adolescent mothers as part of targeted clinical programs. Whilst it is more recently acknowledged that

adolescent mothers use SNS to seek health information, it is not known whether publicly accessible SNS platforms, such as Facebook, facilitate adolescent mothers to build social capital. Hence, there is a gap in the literature relating to the experiences of adolescent mothers who use publicly accessible SNS platforms, particularly in terms of garnering support (social capital) and the relevance of this knowledge for midwifery practice.

The structured review of literature, pertaining specifically to adolescent mothers' use of SNS between January 1995 and April 2015, is presented using a peer-reviewed paper published in the high-ranking international journal, *Midwifery*. The initial review was conducted in April 2015. Interestingly, use of the initial search terms and the same Boolean operators in August 2018 identified no further literature of direct relevance to the research question. Thus, the literature search is considered current at the point of thesis submission.

### 2.1.1 Declaration of Co-authorship and Contribution

<p><b>Full bibliographic reference</b></p> <p>to the item/publication,</p> <p>including authors, title, journal</p> <p>(vol/pages), year.</p>	<p>Nolan, S., Hendricks, J., Ferguson, S. &amp; Towell, A.</p> <p>(2017). Social networking site (SNS) use by adolescent mothers: Can social support and social capital be enhanced by online social networks? — A structured review of the literature. <i>Midwifery</i>, 48, 24–31.</p> <p>DOI:10.1016/j.midw.2017.03.002</p>
<p>Status</p>	<p>Accepted and In Press</p> <p>√ Published</p>

Nature of Candidate's Contribution, including percentage of total

---

Nolan, S conducted the structured literature review and wrote the initial manuscript.

Nolan S was responsible for 60 per cent of total contribution.

Nature of all Co-Authors' Contributions, including percentage of total

Hendricks, J (25%) and Towell, A (15%) contributed to the review design, analysis of search results, and to writing and editing the final manuscript.

Has this paper been submitted for an award by another research degree candidate (Co-Author), either at CQUniversity or elsewhere? (if yes, give full details)

No.

Candidate's Declaration

I declare that the publication above meets the requirements to be included in the thesis as outlined in the Research Higher Degree Theses Policy and Procedure

18 March 2019

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(Original signature of Candidate)

Date

### 2.1.2 Paper One

Nolan, S., Hendricks, J., Ferguson, S. & Towell, A. (2017). Social networking site (SNS) use by adolescent mothers: Can social support and social capital be enhanced by online social networks? — A structured review of the literature. *Midwifery*, 48, 24–31. DOI:10.1016/j.midw.2017.03.002



## Social networking site (SNS) use by adolescent mothers: Can social support and social capital be enhanced by online social networks? – A structured review of the literature



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### ABSTRACT

**Aims and objectives:** to critically appraise the available literature and summarise the evidence relating to adolescent mothers' use of social networking sites in terms of any social support and social capital they may provide and to identify areas for future exploration.

**Background:** social networking sites have been demonstrated to provide social support to marginalised individuals and provide psycho-social benefits to members of such groups. Adolescent mothers are at risk of; social marginalisation; anxiety disorders and depressive symptoms; and poorer health and educational outcomes for their children. Social support has been shown to benefit adolescent mothers thus online mechanisms require consideration.

**Design:** a review of original research articles

**Method:** key terms and Boolean operators identified research reports across a 20-year timeframe pertaining to the area of enquiry in: CINAHL, Cochrane Library, Medline, Scopus, ERIC, ProQuest, PsychINFO, Web of Science, Health Collection (Informa) and Google Scholar databases. Eight original research articles met the inclusion criteria for this review.

**Findings:** studies demonstrate that adolescent mothers actively search for health information using the Internet and social networking sites, and that social support and social capital can be attributed to their use of specifically created online groups from within targeted health interventions. Use of a message board forum for pregnant and parenting adolescents also demonstrates elements of social support. There are no studies to date pertaining to adolescent mothers' use of globally accessible social networking sites in terms of social support provision and related outcomes.

**Conclusions:** further investigation is warranted to explore the potential benefits of adolescent mothers' use of globally accessible social networking sites in terms of any social support provision and social capital they may provide.

### Introduction & background

Adolescent mothers have been the focus of worldwide government reports and intervention strategies since the 1990s (Social Exclusion Unit, 1999–2010; Department Of Health, 2010; Price-Robertson, 2010; Department of Health & Human Services, 2016), due to reported inequalities in the future health, wellbeing and life chances of

adolescent mothers and their children (Australian Social Inclusion Board, 2010; Jutte et al., 2010; Uzun et al., 2013; Möllborn et al., 2014; Cook and Cameron, 2015). The social impact of adolescent parenting includes the risks of developing less functional parenting behaviours (Cragnola et al., 2014; Lee, 2009), reduced employment opportunities and increased reliance on welfare (Taylor, 2009; Kane et al., 2013; Assini-Meytin and Green, 2015; Cook and Cameron, 2015).

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'Adolescence' for the purpose of this paper describes the ages between 10 and 19 years of age as termed by the World Health Organisation (2014).

For many decades research has consistently found that human interaction, termed 'social support', is a causal contributor to individual health and well-being (Cobb, 1976; House, 1981; Cohen and Wills, 1985; Cohen and Syme, 1985). The role of support, provided by either family members, peers and / or professionals following the birth of a baby has been widely explored, often with inconclusive results (Barlow et al., 2011; Negroni et al., 2013; Angley et al., 2015). Social support is a broad, multidimensional concept, often measured in terms of being either 'perceived' or 'enacted', 'structural' or 'functional', and as having multiple components that may include: emotional; instrumental / tangible; appraisal; and; informational forms of support (House et al., 1985; Mason, 2016). This review will incorporate literature that identifies the provision or perception of any element described as 'social support'.

Social capital is a concept closely linked to social support and is widely conceptualised as the resources that are invested into and produced by social relationships and networks and their value for both individuals and groups (Bourdieu, 1986; Coleman, 1988; Putnam, 2000). Kawachi et al. (1997) sought a more pluralistic approach in an attempt to unify key elements of social capital theory. This has resulted in relative consensus that social capital includes elements of social networks that can bring about positive social, economic and health development, both at the 'micro' (individual or family) or 'macro' (local, national or international) level (Ottobjer, 2005; Morgan and Haglund, 2012). Quite simply explained, social capital is the personal and societal benefits that are experienced by having social relationships with others, although a lack of consensus on measurements for social capital makes it difficult to compare studies, particularly across social groups (Acquash et al., 2015; Choi et al., 2014).

For adolescent mothers, increased social support has been demonstrated to correlate with improved postpartum adjustment and related psychosocial outcomes (Unger and Wandersman, 1985; Turner et al., 1990; Whiteley and Brown, 2010; Brown et al., 2012; Mills et al., 2013; Kim et al., 2014). Whiteley and Brown (2010) and Mills et al. (2013) posit that supportive, interactive relationships and decreased feelings of social isolation contribute to improved mental wellbeing for this group of mothers. When it comes to accessing social support however, adolescent mothers often find themselves marginalised from mainstream society due to pre-existing and ongoing social and economic disadvantage (Department Of Health, 2010). Community-based, face-to-face parenting support programmes have long been recognised as a valuable means of social support provision for general populations of new mothers, demonstrating the ability to help them build supportive networks, forge friendships and develop a sense of connectedness to the local community (Strange et al., 2014; Guest and Keatinge, 2009). In contrast, Asher et al. (2014) and Keys (2008) highlight that due to multidimensional problems often faced by adolescent mothers, such as limited transport availability and financial constraints, attendance at such programs may be particularly challenging.

Facebook, launched in 2004, and one of the most widely used social networking sites (SNS), is currently reported to have over 800 million daily users worldwide (Wilson et al., 2012), with Twitter and Instagram rapidly gaining in popularity (Brenner and Smith, 2013; Duggan et al., 2015). Social groups accessed via such sites pose fewer of the identified constraints associated with traditional support group attendance and offer the potential to facilitate effective social support provision for vulnerable individuals, particularly for those at risk of depression (Griffiths et al., 2009; O'Dea and Campbell, 2011). Grieve et al. (2013) studied general populations of Facebook users and confirm its social support benefits, suggesting that the social connectedness offered by Facebook may reduce the incidence of depression and increase satisfaction with life. This is pertinent as adolescent mothers are demonstrated to be at significantly higher risk of depression and

anxiety related symptoms than non-adolescent mothers (Reid and Meadows-Oliver, 2007; Mollhorn and Morningstar, 2009; Collingwood, 2010; Yozwiak, 2010; Kim et al., 2014; McCracken and Loveless, 2014; Aiken et al., 2016; ).

Researchers have demonstrated the value of online social support in increasing both social support and social capital for general populations of mothers (Drentea and Moren-Cross, 2005; Herman et al., 2005; Hudson et al., 2009; McDaniel et al., 2012; Jung and Dworkin, 2014) and in providing effective social support to many other individuals who find themselves marginalised from mainstream society (Netley, 2009; Barnfather et al., 2011; Gowen et al., 2012). For individuals with Internet access social relationships can now be initiated and fostered online, with the current 'explosion' of social media affording the majority of Australian adolescents' access to SNS on a daily basis via mobile phones or computer devices (Dooley and Scott, 2012). This means that adolescent mothers have access to a wide range of SNS and online support groups worldwide which may provide information, advice and support, and possibly contribute to improved social capital and related outcomes.

For the purpose of this review a 'social networking site' is used to describe any website or online place that enables users to create public profiles, form relationships and build networks with other users (Ellison, 2007; Wink, 2010) and includes synchronous (real-time) and asynchronous (on-going) communications.

This review is necessary to determine whether adolescent mothers access SNS, and if SNS demonstrate the ability to provide much needed social support and social capital related benefits for this particular group of mothers.

## Aims and objectives

The aim is to critically appraise the available literature and summarise evidence related to the use of SNS by adolescent mothers, relating such use in particular to social support provision and/or associated social capital related benefits. A structured review of literature is a means by which critical, high quality literature, central to and underpinning the research topic, is rigorously and systematically mapped out (Tranfield et al., 2003). The aim of a structured review is to synthesise prior research studies in a transparent and reproducible way in order to increase knowledge of the topic and inform both practice and policy.

Therefore, the questions are posed: Do adolescent mothers access SNS, and if so, do SNS provide any benefits to adolescent mothers in terms of social support and social capital?

This review will also identify areas for future exploration.

## Method

This review was conducted using Kable et al. (2012) 12 step approach, formulated to assist authors with clear and concise documentation of a search strategy. PRISMA guidelines were also adhered to in the reporting of this review to ensure credibility and transparency (Moher et al., 2009). The following databases were searched: CINAHL, Cochrane Library, Medline, Scopus, ERIC, ProQuest, PsychINFO, Web of Science and Health Collection (Informa). Key terms and Boolean search operators were used to broaden the search criteria.

The search was conducted in April 2015, as an integral component of a PhD research study. The purpose was to locate published primary research related to the use of SNS by adolescent mothers, with particular reference to social support and / or social capital related themes. The quality of included studies was assessed using critical appraisal tools relevant to each type of study design. The results and quality assessments were verified by two researchers to improve the quality of the review process.

### Inclusion criteria

Papers were included based on the following criteria: English language, original research papers related to the uses, and associated benefits of SNS use, by adolescent mothers in terms of social support or social capital, limited to the adolescent mothers' experience, and; published between January 1995 and April 2015. To be included the studies either described their sample as 'adolescent' or predominantly included participants within the WHO definition of adolescence (2012), between 10 and 19 years of age.

Papers were excluded if they only related to private components of Internet communication such as email rather than interactive, synchronous (real-time communication) networking sites or ongoing forms of asynchronous communications such as discussion boards. Dates for the search were limited to January 1st 1995, as this date precedes the first seminal study related to computer-mediated support for adolescent mothers identified (Dunham et al., 1998), to April 2015.

Search terms: adolescent mother, teenage mother, young mother, 'social networking sites', online, email, Internet, web, computer, social media, Facebook, social support, social capital, information.

Boolean operators were included in search terms, using truncation to further broaden results and include plurals or similar terminology:

'Adolescent\* mother\*' OR 'teen\* mother\*' OR 'young mother' AND 'social network\* site\*' OR 'social media' OR email\* OR online\* OR computer\* OR internet\* OR web\* OR Facebook AND social support OR social capital OR information.

Titles, abstracts and keywords were the primary search fields selected unless results were limited in which cases all fields / texts were searched. The search terms were tested to check that they effectively located the types of articles that were consistent with the inclusion criteria prior to conducting the search in all engines, and assistance was sought from an experienced university librarian to ensure effective search terms and methods were employed.

Google and Google Scholar searches were also conducted to identify any grey literature. Key literature retrieved was hand searched in order to identify any relevant references to related literature. Recurrent searches of several databases yielded repeated sources so the researcher was satisfied that saturation had been achieved. Eight relevant studies were identified using the flow chart process illustrated in Fig. 1. The number of retrieved articles from each database is outlined in Table 1. Studies using all methodologies, quantitative, qualitative and mixed-methods, were included in this review.

The search was conducted sequentially through the databases, papers not meeting the initial inclusion criteria were excluded and duplicate papers were identified. Google searches yielded no additional literature of relevance to this review. Searching reference lists of key articles led to the identification of one additional paper of relevance (Hudson et al., 2009). The search was repeated immediately prior to submission to locate recent publications however no further studies were identified at this time. Following a review of the papers either by reading the abstract (or where necessary, the full paper), eight papers were included in the detailed review process and are detailed in Table 2.

### Assessment of the papers

Quality appraisal of the selected literature was conducted (see tools and quality indicators in Table 3). The four mixed methods studies and

the three quantitative studies were assessed using the Evaluative Tool for Mixed Method Studies (Long et al., 2002b), and the Evaluation Tool for Quantitative Research Studies (Long et al., 2002a) respectively, both tools consider internal and external validity measures and were created by the School of Healthcare at the University of Leeds, UK. The single qualitative study was assessed using The CASP Qualitative checklist (Critical Appraisal Skills Programme, 2013), created by the Public Health Resource Unit, funded by the NHS, UK. These quality assessment tools are all recommended by the Sanson Institute for Health Research, which is part of the International Centre for Allied Health Evidence at the University of South Australia. This international centre excels in health research assessment which explains why tools recommended by them were used to appraise the literature in this review.

Each of these assessment methods has a checklist to determine the quality of the papers analysed and the scores achieved are included in Tables 2 and 3. One point was awarded for each criterion achieved using categories designed to reflect the quality of each paper. Criterion bearing no relevance to the particular study were scored as not applicable. These were not criteria that failed to be met, rather that did not apply depending on the design of the study. The tools were created to assist with the quality assessment of research papers however the reviewer must personally determine the overall quality of a study. For the purpose of this review studies were deemed to demonstrate quality, and thus were included in this review, if they achieved a high quality score as outlined in Table 3, and demonstrated quality across all areas considered by the relevant checklist.

### Findings

All eight papers report of adolescent mothers using SNS and describe social support benefits attributable to such use. Five papers (Dunham et al., 1998; Hudson et al., 1999; Kauppi and Garg, 2008; Hudson et al., 2009; Hudson et al., 2012) involved the distribution of computer-mediated support systems to adolescent mothers recruited to specific sample groups, and were conducted in Canada or the U.S. These online group interventions, accessible only to those participating in the intervention (closed-access) were demonstrated to provide the adolescent mothers with elements of tangible, emotional and informational support, and to reduce social isolation, largely via peer support channels. Moreover, in a seminal mixed method study by Dunham et al. (1998), they found adolescent mothers who accessed such support systems most frequently over a period of six months exhibited reduced levels of parental stress and an improved 'sense of community', both benefits indicative of improved social capital. On the basis of these findings, Dunham and associates proffered doubt that any face-to-face community service could provide the quantity of such timely support as was demonstrated by the mothers' exchanges within the online network.

Of the studies that included targeted online interventions, four included nurse – mother interaction via SNS (Hudson et al., 1999; Kauppi and Garg, 2008; Hudson et al., 2009; Hudson et al., 2012) and demonstrated the additional perceived value of online support given by a healthcare professional. In particular, online professional support was linked by Hudson et al. (2012) to reduced emergency room visits for infants of adolescent mothers using the intervention. The provision of effective peer-led, and nurse-driven support was consistent across methodologies.



Fig. 1. - Flow Chart of Literature Screening.

**Table 1**  
Results of Literature Search.

Search Engine	Search terms	# retrieved	Met criteria, Plus, if duplicated (dup)
<b>Cinahl Plus</b> (databases included: Cinahl, ERIC, Medline, PsychINFO)	"adolescent" mother* OR "teen" mother* OR "young mother" (S1) AND "social network" site* OR "social media" OR email* OR internet* OR computer* OR web* OR online* OR Facebook* (S2)	6931 137	7
<b>Cochrane Library</b>	AND social support OR social capital OR information (S3)	60	
	S1	78	
	+S2	10	0
	+S3	5	
<b>Scopus</b>	S1	15257	
	+S2	536	5 (5 x dup)
	+S3	39	
<b>ProQuest</b> (All databases)	S1	13543	
	+S2	512	7 (7 x dup)
	+S3	78	
<b>Web of Science</b>	S1	11387	
	+S2	43	4 (4 x dup)
	+S3	69	
<b>Health Collection</b> (Informa)	S1	1130	
	+S2	56	0
	+S3	32	

Sherman and Greenfield (2013) assessed social support benefits related to use of a message board forum specific to pregnant and parenting teens, demonstrating that asynchronous networking sites are also deemed supportive, providing instrumental, emotional and informational support, particularly when adolescent mothers interact as a homogeneous group. They recommended populations of pregnant and parenting teens interact exclusively online in order to effect a more supportive environment.

The two remaining papers by Logsdon et al. (2014, 2015) surveyed adolescent mothers in the U.S in regard to their preferred methods of obtaining health information. They report that large numbers of adolescent mothers prefer to search for health information using the Internet and SNS such as Facebook, thus consider these mediums to be potential vehicles for the dissemination of health interventions. The authors found that adolescent mothers in the U.S spend a significant amount of time on the Internet, with SNS being used to search for information and 'as a coping strategy' however more complex insights into such uses and associated values were not provided.

It may be noted that studies using qualitative methods, including mixed-methods, offered deeper insight into perceived provision of social support via SNS, and the benefits and values associated with such use. All the included studies however, regardless of their methodology, report at least one type of social support provision (tangible, emotional or informational) to adolescent mothers as a result of SNS use.

## Discussion

The studies included in this review demonstrate that adolescent mothers use online message boards and SNS created for specific online health interventions, and that valuable social support can be found in such use. Whilst studies have indicated that global SNS such as Facebook are widely used by adolescent mothers to search for health information, there is a paucity of knowledge related to social support and social capital provided by global SNS use for this group of mothers. Global SNS such as Facebook have existed since 2004, yet it is unclear whether such sites offer similar social capital related benefits to adolescent mothers as those attributable to the use of specifically created SNS in closed-access, computer-mediated health interventions, and this therefore limits the scope of the review.

Online message boards have been shown to provide valuable

elements of social support (Sherman and Greenfield, 2013), however multifaceted SNS such as Facebook offer more diverse opportunities for social networking, via multiple group memberships, photo sharing, 'friendship' links and synchronous communications which may further enhance support opportunities. All closed-access social networking systems reported upon in this review demonstrate social support provision and social capital related benefits for the adolescent mothers who used them, suggesting such systems and networks have undeniable value and should be considered when developing targeted maternity care services.

Hudson et al. (2012) and Logsdon et al. (2014) indicate that online interventions may be well placed for midwifery, nursing or healthcare driven support and education for adolescent mothers. With the advent of SNS such as Facebook, midwives and nurses have access to a medium that could potentially perform and provide support in similar ways to the online systems created by others (Dunham et al., 1998; Hudson et al., 1999; Kauppi and Garg, 2008), without requiring the provision of computer equipment and specific software. Further knowledge is required to appraise global SNS as a similarly suitable medium to deliver health and/or support interventions to this target group.

Professional support via online interventions has been demonstrated to positively affect outcomes for infants of adolescent mothers (Hudson et al., 2012), and for adolescent mothers themselves (Hudson et al., 1999; Kauppi and Garg, 2008; Hudson et al., 2009), yet healthcare providers and policymakers remain fearful of involvement with social media and SNS such as Facebook (Lambert et al., 2012; MacMillan, 2012; Kravitz, 2013). The associations made by Hudson et al. (2012) between online support and reduced emergency room admissions, and Dunham et al. (1998) in terms of improved mental health outcomes, demonstrate the potential of online support to benefit society in terms of overall health development and more effective use of healthcare services. Moreover, the fact that large numbers of a difficult to reach group, teens, access SNS on a daily basis (Donley and Scott, 2012; Duggan et al., 2015) means that any related benefits need to be harnessed by healthcare providers.

Support received via specific SNS systems has been demonstrated within this review to reduce adolescent mothers' parental stress and social isolation, and assist them to build valuable social capital. Such benefits are particularly important for adolescent mothers due to their high risk of ongoing mental health issues, social isolation and margin-

Table 2  
Summary of Individual literature.

Author Year country	Study Design	Sample size & sites	Design / Data collection methods	Key Findings / comments	Quality Appraisal Tool, include/exclude
1. Hudson et al. (1998). "Computer-Mediated Social Support (CMSS): Single Young Mothers as a Model System". American Journal of Community Psychology, Vol. 26, No. 2. Canada Based in: PsychINFO, ProQuest, Web of Science	Mixed Method Participatory action research	convenience sample 42 single adolescent (aged 15–20) mothers	Mixed methods. Monitoring CMSS use / measuring responses to CMSS. Qualitative: thematic analysis of online messages, Quantitative: use of questionnaire, PSI / Sense of Community Scale	Adolescent mothers actively participated in the CMSS. Reduced parental stress, and an increased sense of community demonstrated by those using the CMSS more frequently.	Inclusion Tool for Mixed Method Studies, Prof Andrew Long (2005). School of HealthCare, University of Leeds 38/39 relevant criteria  <b>High quality INCLUDE</b>
2. Hudson and Eliek (1999) "Young Parents' Perceptions of a 21 <sup>st</sup> century nursing intervention". Issues in Comprehensive Pediatric Nursing, Oct-Dec, 27 (4): 153-65. U.S. Based in: CINAHL, Scopus, ProQuest	Mixed method Pilot study, exploratory, descriptive, content analysis "Qualitative measures"	Convenience sample 9 pregnant adolescents (aged 15–19) recruited to participate in the "Young Parents' Project" (YPP)	Qualitative: Content analysis of online messages / email, Quantitative: Interview Descriptive data Thematic analysis of messages	The YPP served as a mechanism for providing health information and social support (emotional support) to adolescent mothers. Findings suggest this model is also likely to be an effective medium for providing nursing care to adolescent mothers	Evaluation Tool for Mixed Method Studies, Prof Andrew Long (2005). School of HealthCare, University of Leeds 35/39 relevant criteria  <b>High quality INCLUDE</b>
3. Kump, C. and Garg, R. (2010). "Technology of Cyberspace: A Computer-mediated Peer Support Group to Address the Needs of Young Mothers". Canada Based in: ProQuest	Mixed method Longitudinal 3.5 year study.	Convenience sample 72 adolescent (aged 15–19) pregnant teens and teen mothers	Qualitative: structured interviews / semi-structured interviews Qualitative: structured interviews and content analysis of online messages	The internet based peer support group was considered the most valuable aspect of the multi-faceted project by the participants. The online group gave them access to emotional, informational and practical support and reduced social isolation.	Inclusion Tool for Mixed Method Studies, Prof Andrew Long (2005). School of HealthCare, University of Leeds 30/39 relevant criteria  <b>High quality INCLUDE</b>
4. Hudson et al. (2009) "Online Support for single, low income African American Mothers". The American Journal of Maternal Child Nursing, Nov-Dec, 34 (6): 350-5 U.S. Based in: CINAHL, PsychINFO, Scopus, ProQuest, Web of Science	Qualitative Content analysis	Convenience sample 20 single, low-income, African American mothers (aged 16–21) had access to the "New Mothers Network" (NMN) discussion forum.	Qualitative: Thematic analysis of discussion board / online forum message content	Mothers used the NMN discussion forum to share their experiences as new mothers and to seek guidance and support from the research nurses and each other. 8 themes identified relating to social support.	CASP Qualitative checklist Public Health Research Unit, UK 36/43 relevant criteria  <b>High quality INCLUDE</b>
5. Hudson and Campbell Grossman (2012) "Effects of an Internet intervention on mothers' psychological, parenting and health care utilization outcomes". U.S. Based in: CINAHL, PsychINFO, Scopus, ProQuest, Web of Science	Qualitative Longitudinal / Experimental Design	Convenience sample 42 single, low-income, adolescent (aged 16–21), African American mothers randomly assigned to one of two groups, control or intervention.	Qualitative: Data collection tools x 8 (Questionnaires)	Relaxation in emergency room visits for infants of intervention group. No differences between the groups regarding depression, stress, parenting experiences, loneliness and satisfaction scores. The online intervention (NMN) is well poised for nurse driven social support via the internet.	Evaluation Tool for Quantitative Research Studies, Prof Andrew Long, School of HealthCare, University of Leeds 44/54 relevant criteria  <b>High quality INCLUDE</b>
6. Issues in Comprehensive Pediatric Nursing, Vol.30(3–4), 2012 pp. 176–193 Based in: PsychINFO, Scopus, ProQuest Sherran and Greenfield (2013) "Fostering Friendship, softening support: A mixed method examination of message boards for pregnant teens and teen mothers". U.S.	Mixed method Content analysis	Convenience sample – Threads from 4 message boards specifically for pregnant and parenting 'teens' were analysed.	Content analysis of message board posts	Analysis revealed frequent instances of emotional, informational and informational support within message board posts. Online communities for pregnant (continued on next page)	Evaluation Tool for Mixed Method Studies, Prof Andrew Long (2005). School of HealthCare, University of Leeds  <b>High quality INCLUDE</b>

Table 2 (continued)

Author Year country	Study Design	Sample size & sites	Design / Data collection methods	Key findings / comments	Quality Appraisal Tool, include/exclude
Computers in Human Behavior Vol 25(1), Jan, 2013 pp. 75–85. U.S		with 50 users from each forum selected based on participation. Identified as pregnant teens = 43.0%		Adolescent mothers spend significant time on the internet including searching for health information. Cell phones are their preferred method for accessing the internet, and they use social media such as Facebook to search for health information and as a coping mechanism.	36-5/38 relevant criteria <b>High quality INCLUDE</b>
7 Legido et al. (2014) "Preferred Health Outcomes and Use of Social Media to Obtain Health and Depression Information by Adolescent Mothers". Journal of Child & Adolescent Psychology Nursing, 2014 8(4): 27 (4): 145-8. U.S	Quantitative Cross-sectional / Descriptive Quantitative measures	Multi-center, convenience sample n=94 & n=91 total 186 adolescent mothers (aged 13–18)	Questionnaire Pre-Internet Survey (37 questions related to use of social media and internet, particularly in regard to obtaining health information)	Adolescent mothers spend significant time on the internet including searching for health information. Cell phones are their preferred method for accessing the internet, and they use social media such as Facebook to search for health information and as a coping mechanism.	Evaluation Tool for Quantitative Research Studies. Prof Andrew Laro, School of Healthcare, University of Hull <b>43/45 relevant criteria High quality INCLUDE</b>
8 Legido et al. (2015) "Use of social media and Internet to obtain health information by non-adolescent mothers". Applied Nursing Research 2015 Feb; 28 Q1, 55-6. U.S	Quantitative Cross-sectional /Descriptive Quantitative measures	Convenience sample 15 adolescent mothers aged 13– 18	Questionnaire Pre-Internet Survey	Rural adolescent mothers spend significant time on the Internet including searching for health information. Cell phones are their preferred method for accessing the internet, and they use social media such as Facebook to search for health information.	Evaluation Tool for Quantitative Research Studies. Prof Andrew Laro, School of Healthcare, University of Hull <b>36-5/45 relevant criteria High quality INCLUDE</b>

**Table 3**  
Criteria used to determine methodological quality of papers.

Checklist	High Quality	Medium Quality	Low Quality
Evaluation Tool for Mixed Method Studies	27–39	14–26	1–13
Evaluation Tool for Quantitative Research Studies	31–45	16–30	1–15
The CASP Qualitative checklist	30–43	15–29	1–14

alisation due to poor engagement with health, educational and employment services (Cook and Cameron, 2015). If similar outcomes were known to be attributable to the use of global SNS by this targeted group, it would suggest that promotion of, or even the creation of such sites should be considered by modern-day healthcare professionals caring for adolescent mothers.

With Sherman and Greenfield (2013) suggesting that adolescent mothers find homogenous online groups to be the most supportive, meaning those populated predominantly by pregnant or parenting teens, further exploration of global SNS use would further this knowledge and determine whether adolescent mothers are indeed more vulnerable when interacting among the worldwide parenting population at large. The ability of global sites to provide social support and social capital to adolescent mothers has yet to be demonstrated, however the potential for social media use to positively influence public health is certainly high on the global agenda (Morris et al., 2011; Woolley and Peterson, 2012; Wilson et al., 2012; Ferguson, 2013; Zhang et al., 2013; Price et al., 2014; Horvath and Ecklund, 2015). Health professionals are also in a pivotal position to provide information to clients to improve and maintain their 'cyber-safety' when interacting in online environments (Moreno et al., 2013).

## Conclusion

Adolescent mothers have been shown to use SNS, as part of closed-access online interventions, via message boards or via sites such as Facebook to seek healthcare information. Social support provision via online systems is evident, with outcomes related to health education, improved mental health and enhanced social inclusion attributable to such use of SNS. Further exploration of global SNS use by adolescent mothers would determine whether the same social capital related benefits are achievable by global SNS access, as those afforded by specific online interventions. This review highlights the need to inform maternity service providers and encourage them to be more responsive to adolescent mothers' use of SNS in terms of the social support and social capital these forums may provide.

Additional research into globally accessible SNS would enable midwives and policy makers to determine whether closed-access online interventions are still considered necessary, or whether similar benefits are attainable by promoting and engaging in adolescent mothers' use of global SNS. It may also stimulate further discussion around the integration of healthcare practices and professionals into widely accessible SNS environments in order to potentiate further benefits in terms of social capital related outcomes.

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## **2.2 Outcome of structured review**

The eight articles included in the structured review were considered high-quality and to suitably reflect their methodologies following review by specific critical appraisal tools (see Tables G.2 & G.3). Notably, only three studies (Logsdon et al., 2014; 2015; Sherman & Greenfield, 2012) related to publicly-accessible SNS platforms that did not require the distribution of program specific software or computer-systems which highlights the importance of this study. Five studies (Dunham et al., 1998; Hudson, Elek, Westfall, Grabau & Fleck, 1999; Hudson et al., 2009; Hudson, Campbell-Grossman & Hertzog, 2012; Kauppi & Garg, 2009) used program specific software and computers distributed to targeted groups of adolescent mothers to facilitate synchronous (real-time) and asynchronous (involving a time-lag) communication through group interaction.

Of these five, two seminal studies (Dunham et al., 1998; Hudson et al., 1999), the first to study online networks of adolescent mothers, were integral in highlighting the supportive benefits associated with closed-system networks of peers and trained moderators. In these studies, however, knowing that they were participating in research programs may have affected adolescent mothers' online experiences and behaviours (McCambridge, Witton & Elbourne, 2014). A mixed-methods study by Sherman & Greenfield (2012) analysed public message board forums for pregnant and parenting adolescents, demonstrating that even solely asynchronous sites may be supportive to adolescent mothers. By analysing existing message board content, Sherman and Greenfield (2012) were able to analyse online behaviours and interpret experiences without influencing participant behaviour or interaction. In all studies, regardless of their methodologies, benefits relating to online group interaction in terms of enhanced levels of information and support were reported.

Of the five studies relating to program and software specific computer systems, three used mixed-methods (Dunham et al., 1998; Hudson et al., 1999; Kauppi & Garg, 2009), one qualitatively analysed the message content from a group forum (Hudson et al., 2009) and one used only quantitative methods to ascertain the supportive elements associated with adolescent mothers' online networking (Hudson et al., 2012). Two of the studies (Dunham et al., 1998; Hudson et al., 2012) used a range of validated tools to measure outcomes, including health and wellbeing and healthcare utilisation before and after participation in an online intervention (see Tables G.2 & G.3). Interestingly, the study that used only quantitative methods (Hudson et al., 2012) found no significant differences in outcomes relating to social wellbeing, such as loneliness, levels of perceived stress or satisfaction. This may be attributed to the challenges of self-reporting, particularly before and after an intervention (Rosenman, Tennekoon & Hill, 2011), even when using validated tools. The study did, however, point to more effective use of healthcare services by adolescent mothers (Hudson et al., 2012).

Similarly, the intent and focus of research may influence the presentation of findings. For example, the two quantitative descriptive studies by Logsdon et al. (2014; 2015) focused on adolescent mothers' use of the Internet and social media to obtain health information. Indeed, both studies identified that adolescent mothers regularly used the Internet and social media to seek health information, however, questions that related to other benefits of SNS use, such as 'coping', were not explored further in the context of these descriptive studies. It must also be noted that research into adolescents often requires measurement tools to be validated specifically for their use due to their potentially age-limited levels of comprehension (Greco, Baer & Smith, 2011; Logsdon, Usui & Nering, 2009).

Importantly, the studies that used qualitative methods (Hudson et al., 2009), including mixed-methods (Dunham et al., 1998; Hudson et al., 1999; Kauppi & Garg, 2009; Sherman & Greenfield, 2012), offered deeper insight into the multifaceted types of support and social capital offered by online social networks, particularly emotional support and related benefits such as reduced feelings of stress and isolation. This review highlights that qualitative methods are most suited to uncovering the social capital-related value inherent in online experiences. It is for this reason that a qualitative methodology was chosen to guide this study.

The strength of this literature review is the structured appraisal of relevant research articles guided by an answerable question. Articles were reviewed both for their methodological rigour, using validated quality appraisal tools appropriate to each methodology (see paper 1, & tables G.2 & G.3) and their contribution to practice. The articles were reviewed in relation to the research question and a conclusion reached. The review was naturally limited by the limited number of studies that have studied adolescent mothers' use of SNS since the advent of publicly-accessible platforms such as Facebook.

In terms of relevance to midwifery practice, the focus of future research should likely now be upon establishing 'netnographic' research from within publicly-accessible SNS platforms such as Facebook. Netnography facilitates exploration of clinical and psychosocial outcomes from within established online platforms (Witney, Hendricks & Cope, 2015), thus would facilitate exploration of the impact of modern SNS platforms on adolescent mothers' psychosocial outcomes and healthcare engagement. Using already established, or purpose-built platforms, midwives could disseminate evidence-based health information and moderate supportive online communities. In contrast to early program interventions described in the literature, advancements to digital technologies

include widespread access, improved connection speeds and enhanced interactivity, thus provide a plethora of opportunities for midwife-mother engagement. It must be acknowledged that whilst Australian professional bodies have created guidelines for nurses and midwives around social media use (NMBA, 2014; AHPRA, 2017), these focus largely on professional misconduct, and the blurring of personal and professional boundaries rather than practical guidance on how to facilitate online care. The use of SNS and their effects on social capital and resultant wellbeing in adolescent mothers has potential and should be further explored in this population.

## **2.3 Chapter Summary**

There is strong evidence as to the health and social disadvantages for motherhood during adolescence, increasing the significant long-term costs to both individuals and society if improvements to health and psychosocial outcomes for this age-group of mothers do not continue. Multi-method studies have provided some insights into SNS use for this group of mothers, however, the use of narrative methods in this research will extend and add to the depth of knowledge available on this topic. This research assumes that an improved understanding of adolescent mothers' needs by midwives will contribute towards improved service provision, particularly around the influence of modern-day digital technologies. Improving services may ultimately enhance engagement with midwives, particularly by women often reluctant to engage with traditional services, such as adolescent mothers.

The structured review clearly identified gaps in the literature. Firstly, in that limited studies have explored use of publicly accessible SNS platforms by adolescent mothers to build social capital. Literature pertaining to online social networking by this group has largely involved program and software specific computer systems produced for and distributed to small groups of adolescent mothers. Whilst the acquisition of social

capital was evident in these studies, access to digital technologies and the nature of SNS-related features have advanced exponentially since these early program-specific interventions. The literature review inspired the researcher to instead explore the use of publicly accessible SNS platforms by adolescent mothers and extrapolate any inherent value attributed either to such activity or to influences on the experience of adolescent motherhood.

Secondly, studies identified within the review commonly analysed the content of mothers' online SNS messages, hence the review also highlighted the need for a methodology that would illuminate adolescent mothers' unique voices and enable them to tell their stories of experience. While the structured review process excluded studies that did not relate specifically to adolescent mothers, it is acknowledged that both Notley's (2009) and Bannon et al.'s (2015) findings, related to the benefits of SNS use for marginalised adolescents, remain important in the wider context of this study.

Whilst the initial literature review was conducted in April 2015 and the paper included in this chapter was published in 2017, repeated use of initial search terms and Boolean operators in August 2018 identified no further literature pertaining to adolescent mothers' use of SNS. Thus, the literature search is considered current at the point of thesis submission.

## **2.4 Chapter to Follow**

Chapter three discusses the use of narrative inquiry as the methodology of choice to explore the research phenomenon and fill a significant gap in the literature. The following chapter will provide a detailed description of the narrative approach used to gain an insight into the experiences of West Australian adolescent mothers who use publicly accessible SNS platforms and how this may influence their experiences of motherhood. It will outline the research design and describe the appropriateness of the

methods used to conduct the study. Ethical considerations, methodological rigour, researcher positioning and challenges faced during the research process are also discussed in the chapter to follow.

## **Chapter Three: Methodology/Methods**

### **3.1 Introduction**

In the previous chapter, it was established that few studies have focused on adolescent mothers' use of publicly accessible SNS platforms to build social capital. The literature to date has focused mostly on program and software specific computer systems of support or online message boards for adolescent mothers and has only represented one side of the story. That is, few studies have focused on the voices of adolescent mothers in terms of describing the value of their online social interactions. Thus, there remain unanswered questions related to the value, meanings and interpretations held by adolescent mothers who are 'living the modern SNS experience', and how these experiences influence their experiences of motherhood. A research approach that facilitates the capture of the unique narratives of adolescent mothers and gives voice to their experiences of SNS derived support is narrative inquiry.

This chapter describes the use of narrative inquiry, highlights the importance of its philosophical underpinnings and the influence of these underpinnings on the methods used in this study. Therefore, this chapter is written in two parts, methodology and methods. The methods section includes ethical considerations, the maintenance of methodological rigour and the researcher's positioning. The inherent value in using narrative inquiry to explore the nuance of online experience is described using a peer-reviewed paper published in the *Journal of Advanced Nursing*, a high-ranking international journal. The paper is presented in section 3.7.2 of this chapter (p64).

## **3.2 Methodology**

### **3.2.1 Interpretive Processes**

The ontological position of the interpretive paradigm is that realities are multiple, subjective and relative (Lincoln & Guba, 1985). In other words, realities are socially constructed. Consequently, knowledge is not considered an entity that can be discovered objectively and separately to an individual being (Crotty, 1998; Lincoln & Guba, 1985). Hence, the interpretive process is a philosophical framework that seeks to understand and inform research rather than to provide a description of social reality (Creswell, 2013). Interpretivism is an approach that values the meaning that individuals ascribe to experiences using their own words (Denzin & Lincoln, 2011). Equally, Denzin and Lincoln (2011) assert that interpretive research should be guided by the development of trusting relationships and immersion in the lives of participants to ensure the thoughts, feelings, actions and perspectives of participants remain at the fore. Hence, the interpretive approach focuses on the way individuals or groups make sense of their subjective reality and attach meaning to it (Denzin, 2001).

Interpretive researchers must understand that individual experiences are context-bound, that they cannot be separated from time and location and, similarly, are influenced by the values and interests of both researcher and participant (Creswell, 2013). Accordingly, Creswell (2013) emphasises the need for researchers to remain reflexive, to take into consideration their position, language and interests and take ownership of the interpretation of their findings. When designing interpretive research, the data itself often generates new ideas, consequently the research design evolves rather than being predetermined (Creswell, 2013), as in this study. The interpretive framework is well suited to exploring social and health phenomena from within small and often

marginalised social groups (Creswell, 2013). It was for this reason that narrative inquiry was chosen to guide this study involving adolescent mothers.

In this study, contextual understanding was achieved through use of an empathetic stance, by sharing experiences and by using the interpretive lens to capture the mothers' realities. Heidegger (1927) claims that for outsiders to understand and interpret others' realities, they require an understanding of human behaviours pertinent to that social context. In this instance, it was adolescent mothers' online SNS experiences that were examined for any perceived value, particularly in terms of garnering support or building social capital. Applying the interpretive lens allowed the researcher to see, understand and interpret everyday events and experiences (Creswell, 2013), in the context of the value placed on the use of SNS by adolescent mothers and how this use may have influenced their lives (see section 4.1 of paper two, p67) for further information on the philosophical underpinnings of interpretive research).

For interpretive researchers, however, the main challenges relate to the management, interpretation and presentation of the data and its trustworthiness (Clandinin & Connelly, 2000). Fundamentally, interpretivists acknowledge that value free knowledge is impossible to acquire, for example, researchers assert their beliefs throughout all stages of the research process; when they choose what to research, how to research and how to interpret their data (Creswell, 2013; Edge & Richards, 1998). Hence, the importance of maintaining trustworthiness, (see section 3.6, p59) and the relevance of the researcher's position (see section 3.7, p61) are discussed later in this chapter.

### **3.2.2 Narrative Inquiry**

Narrative inquiry is a method that has been used across diverse disciplines, including education, geography, healthcare and sociology (Clandinin, 2007). Furthermore, Clandinin (2013) explains that this method is seen in many formats,

transcending different approaches including autobiography, biography, life stories, case study narratives and more recently, interview transcripts and journal records (Clandinin, 2013). This method is particularly suited to nursing and midwifery research where individual perspectives are explored to increase understanding of an unknown phenomenon (Casey, Proudfoot, & Corbally, 2016; Guerra-Reyes, & Hamilton, 2017). Relating to midwifery, narratives have been used to explore women's experiences of labour and birthing (Ireland, Wulili Narjic, Belton & Kildea, 2011), breastfeeding (Ryan, Bissell, & Alexander, 2010) and motherhood (Brand, Morrison & Down, 2014). Narratives have also been successfully used to explore adolescents' hopes and aspirations (Cussen, Howie & Imms, 2012) and physical exercise behaviours (Knowles, Niven & Fawkner, 2014). Hence, narrative inquiry was deemed the most appropriate method to add to the body of knowledge surrounding adolescent mothers' use of social media, particularly in relation to any social capital it may afford them in their parenting role.

Narrative inquiry is a way of understanding and inquiring into experience through 'collaboration between researcher and participants, over time, in a place or series of places, and in social interaction with milieus – narrative inquiry is stories lived and told' (Clandinin & Connelly, 2000, p. 20). Consequently, Clandinin and Connelly (2000) assert that narrative inquiry involves an awareness that what is told reflects largely on who is doing the telling as well and where and when the story is being told. A narrative framework obligates researchers to listen to the human impulse to tell stories and affords them special access to the human experience of time, order and change (Clandinin & Connelly, 2000). The importance of stories, time, language, context and their relevance to this study are discussed in paper two (p68-69). Particularly relevant to this study, is the ability of narrative methods to explore what is unsaid as well as what is said (Feldman, Sköldbberg, Brown, & Horner, D, 2004; Todorova, 2007). This led the researcher to

explore the potential for adolescent mothers to receive additional support from potential sources of support not mentioned in the narratives, namely midwives.

Narrative methods were selected as the most appropriate way of uncovering the social and cultural context of adolescent mothers' SNS experiences, particularly in relation to the temporality of motherhood. The strength of narrative inquiry lies in its collaborative flexibility and ability to illuminate the nuances of the social world using thick description (Creswell, 2013). According to Creswell (2013), thick description develops from the data and through description of the surrounding context. Notably, Clandinin and Connelly (2000) highlight the ability of stories to generate the thick description needed to understand the social world. In this study, the task involved describing the location and the people within it, giving visual pictures of events and settings (see section 4.1, p75) as well as providing verbatim quotes from mothers' narratives of the support provided by their SNS use (see paper three, p86). Consequently, this bi-phasic study (see section 3.3 to follow) using both individual and group interviews, followed an interpretivist epistemology, understanding that whilst reality is subjective, an in-depth understanding of a relatively unknown social phenomenon may be achieved by listening to participants' stories of experience.

Listening to stories allows narratives to be collected in a non-directive way, using broad, open-ended questions to elicit stories of experience. In this way, the researcher's use of open-ended questions and follow up prompts (see Appendix D) that followed the direction of the stories, facilitated the collection of valid, trustworthy data. The flexibility offered using narrative methods (Bruce, Beuthin, Sheilds, Molzahn & Schick-Makaroff, 2016; Riessman, 2008) allowed for fluidity and reflexivity in the research process, particularly in terms of the emergent design; a hallmark of qualitative approaches. Morgan (2008) describes emergence as a circular process, in that as new data are being

collected, there is ongoing analysis, ‘so that both the research procedures and questions can be adjusted in an iterative fashion in response to what is being learned in the field’ (p246). In this way, the researcher was prompted to determine if midwives had a potential role in adolescent mothers’ SNS environments. Emergence enabled the researcher to identify the absence of midwives in the stories gleaned from phase one of the study and to incorporate questions related to midwifery in the second phase of the study.

Flexibility is also considered particularly valuable when motivating adolescent research respondents to elicit detailed stories of experience (Bassett, Beagan, Ristovski-Slijepcevic, & Chapman, 2008; Erickson, Gerstle, & Feldstein, 2005; Mack, Giarelli, & Bernhardt, 2009). The researcher’s ability to motivate participants to elaborate and to describe experiences in detail added a deeper level of understanding to their often-brief initial responses and thus to the overall narratives of their experience of SNS use. Using a narrative approach, the author could interpret what SNS use means to an individual mother, at particular times, in certain situations and how mothers make sense of such experiences from their own perspectives.

This depth of knowledge enabled the researcher to explore how midwives could respond to and use this enhanced understanding. The researcher could then further develop themes and ideas in ways that may assist practitioners, educators and policy makers to enhance or promote any benefits attributed to the mothers’ use of SNS. Applying the interpretive lens (Creswell, 2013), enabled the researcher to seek the deeper meaning behind experiences to discover how adolescent mothers adapt to motherhood, what influence is exerted by their use of SNS and, subsequently, how midwives may respond to this new knowledge. What follows is an application of the philosophy of narrative inquiry to the research process and methods used in this study.

### **3.3 Methods**

This study comprised of two study phases (bi-phasic). The first phase encompassed an initial exploration of adolescent mothers' use of SNS as a tool of social support (social capital). The second phase of the study involved two components, it firstly examined the perceptions of adolescent mothers in relation to midwives' capacities to provide them additional support using social networking sites. Secondly, it involved an exploration of midwives' views related to their perceived capacities to lend additional support to this group of mothers using SNS as supportive platforms, identifying barriers and enablers to this innovative means of support provision. The methods used in each study phase will now be discussed in turn.

#### **3.3.1 Phase one**

The focus in phase one was to explore adolescent mothers' use of SNS as a tool of social support (social capital). The study was initially advertised within a series of WA newspapers inviting participation of mothers that met the inclusion criteria, known as purposeful sampling (Patton, 2002). The inclusion criteria for mothers in this study were: mothers aged 19 years or under who lived in WA, spoke and understood English, used SNS and had given birth to a live child or children with whom they resided and for whom they had parental responsibility. Purposeful sampling is a technique widely used in qualitative research for the identification and selection of individuals considered knowledgeable about or experienced with a phenomenon of interest (Creswell & Plano Clark, 2011). This approach, however, yielded few results (two mothers contacted the researcher), thus snowball sampling (Creswell, 2013; Lavrakas, 2008; Welch, 2014) was also used, whereby participants were asked to share the study information with peers; identifying those willing to be contacted by the researcher. This approach was more successful, with a further fourteen participants recruited in this way throughout the course

of the study. Data collection, using interviews, continued until thematic saturation was considered to have been achieved. Saturation of data meant that no further new concepts were discovered, and existing information was reinforced and consolidated (Creswell, 2013; Strauss & Corbin, 1998). Consequently, seven mothers were interviewed in this study phase about their experiences of SNS use. The seven interviews enabled the researcher to obtain comparable data using the constant comparison method and to strengthen and add depth to existing narratives (Creswell, 2013).

Interviewing took the form fashioned by Douglas (1985) termed ‘creative interviewing’, whereby the participant and the researcher, in an egalitarian, trusting way, creatively and openly shared experiences with each other to potentiate greater self-understanding and build rapport. This type of interviewing was considered most suited to engaging adolescent respondents in-depth dialogue. The empathetic stance employed by the researcher facilitated contextual understanding of the experience of an individual telling their story, considered central to an interpretive approach (Heidegger, 1927). Interviews opened with asking the participant to describe a typical ‘day in their life’, and then ‘describe their experiences using SNS as a mother’ (see Appendix D for interview guide). This facilitated open lines of communication and encouraged in-depth dialogue to enhance the quality of the interview. It also enabled the researcher to gain valuable social and cultural context in terms of the participants' experiences of adolescent motherhood in keeping with a narrative approach (more detailed contextual information about participants is provided in chapter four). Conversely, it is identified that eliciting stories can be more challenging than using more directive question and answer interview techniques (Anderson & Kirkpatrick, 2016; Alshenqeeti, 2014) and participants in this study often required prompting to elicit in-depth dialogue. However, most mothers

appeared to enjoy relaying their stories to an empathetic listener despite requiring prompting to elaborate on their experiences.

Two mothers disengaged with the research process at this stage due to either loss of contact or unforeseen personal circumstances. The remaining seven mothers were asked to participate in a focus group in what became phase two of the study.

### **3.3.2 Phase Two**

The focus in phase two was to explore the potential capacities of midwives to enhance the SNS-related support (social capital) identified by mothers in phase one. The researcher decided to convene a focus group with the remaining seven mothers identified through snowballing. These mothers were informed of the proposed change in data collection and consented to participate in a group interview. A focus group was chosen to inform phase two of the study for its ability to gather ideas and opinions from small groups of people who share common characteristics and to provide rich and detailed data to enhance understandings of the topic under exploration (Krueger & Casey, 2015). Due to the study's focus shifting to the capacities of midwives to lend adolescent mothers additional support using SNS platforms, a focus group was considered the most appropriate forum to generate discussion.

Despite the researcher's best efforts, providing flexible schedules, transport and onsite childcare, only two adolescent mothers attended the focus group at the arranged time. At this stage, similarly to phase one, two mothers disengaged with the research process through loss of contact or illness. The remaining three mothers were unable to be reconvened at a mutually agreeable time, so further individual interviews were conducted (see 'challenges navigating with narrative and strategies to be considered', section 4.7 of paper two, p70 & research process limitations, section 7.6, p153). Establishing the views of adolescent mothers in relation to midwifery support was considered important, thus

prompting an iterative response and change to data collection methods, a central tenet of narrative research processes (Daiute, 2013). Consequently, five mothers participated in this study phase; two in a focus group and three in individual interviews.

During the data collection stage of this study, the researcher was working as a clinical midwife in a large tertiary hospital in Perth. Hence, a midwife colleague, aware of this study and its evolving focus on midwives' capacities to enhance existing support using SNS, expressed a desire to share her views. The researcher considered that eliciting the views of midwives in addition to mothers would likely add significant value, particularly in terms of informing policy and practice. Subsequently, the midwife who volunteered participation used snowball sampling to identify other midwives willing to participate in a focus group. The inclusion criteria for midwives were: midwives registered with the Australian Health Practitioner Regulation Agency (AHPRA) who worked and resided in WA. A further six midwives volunteered participation in this way, although two did not attend the focus group and disengaged with the research process for reasons unknown to the researcher.

Phase two, therefore, had two components. The researcher sought the views of adolescent mothers and subsequently midwives about midwives' capacities to lend further support to adolescent mothers using SNS platforms. This exploration evolved from the findings of phase one. Themes derived from phase one were used to guide the exploration and interviews in phase two (see Appendix E and Fig G.2). Five adolescent mothers and five midwives participated in this study phase. What follows are the ethical considerations pertinent to this study.

### **3.4 Ethical Considerations**

Ethical clearance for this study was obtained from the Human Research Ethics Committee at Edith Cowan University (ECU) in WA, through whom issues of

confidentiality, anonymity, protection of participants' rights and emotional vulnerabilities, as well as the ownership, protection and long-term storage of data were addressed. Initially, approval to interview adolescent mothers was obtained, then an amendment to the ethics application was approved to conduct focus groups with adolescent mothers and midwives in the second study phase. Research processes were framed around the intention to remain transparent, promote confidentiality and, first and foremost, highlight the voice of the participant (National Health and Medical Research Council [NHMRC], 2018). These aims are firmly grounded in the concepts of integrity and beneficence yet interpreting the words of others using interpretive research methodologies may still be considered a risk (Smythe & Murray, 2000; Gottlieb & Lasser, 2001). Adolescent mothers, by nature a vulnerable group, may be considered potentially compromised by the public exposure of their lived experiences, in both the presentation of a thesis and resultant publications. Consequently, the researcher used simple language to explain that study findings would be published in both a thesis and journal articles and to enhance the readability of the study information and consent documents. Informed consent was obtained by providing detailed research information sheets and by the receipt of verbal and written consent through signed consent forms (see Appendices A, B and C).

Conducting research on minors (those aged under 18 years) incurred constant ethical vigilance to protect their rights (NHMRC, 2018). These rights include: initial and ongoing consent to participate, to withdraw from the process without consequence and to verify the legitimacy of their narratives. To address gaining legal consent from minors, participants were asked to confirm that they had 'parental responsibility' for their child or children within the inclusion criteria. 'Parental responsibility' means that there are no court orders in place, imposed by the Department of Child Protection & Family Support

(CPFS) or any other agency, that give another individual legal responsibility for the child or children. This criterion served to ensure that various health and welfare agencies had established the mature minor status of these mothers; deeming them responsible to make autonomous decisions that would include participating in research (Hunter & Pierscione, 2007; Silber, 2011) (see paper three – ethical considerations, p88). Participants were offered the opportunity to review their final transcripts and a summary of interpreted findings, although none elected to do so.

Pseudonyms were used to report data findings in all publications and in this thesis to optimise participant confidentiality. Contact numbers for external support agencies related to the emotional and psychological health of adolescents were included in the written study information and participants were guided to appropriate mental health helpline services if any concerns or emotional vulnerabilities were identified during the research process. Interviews and focus groups were conducted at times and locations chosen by participants to minimise inconvenience to participants and to optimise their safety. All participants chose to convene interviews either in their own homes for individual interviews, or for focus groups, in a home volunteered by a group member considered most suited to the convening of a focus group.

Researcher safety was ensured by informing an academic supervisor when entering and leaving the research location and by asking safety-related questions prior to attendance. The researcher asked similar questions to those she would have asked during her employment as a midwife in community-based practice (Department of Health, 2015). Question topics included who the participant lived with, whether they were aware of and agreed to the proposed meeting and whether they had a dog/pets. Whilst these safety measures were not requested during the ethical clearance process, the research team ensured that the ongoing safety of the researcher was attended.

### **3.5 Data Analysis**

Throughout the study, data analysis incorporated the constant comparison method. That is, there was simultaneous collection and analysis of data to facilitate a constant comparison of data, literature and emergent themes (Creswell, 2013). This method was systematic, repetitive, and by the researcher revisiting interview recordings and transcripts multiple times ensured that the meaning and understanding gained was considered an accurate representation of the information contained in the narratives. As suggested by Saldaña (2016) there were multiple cycles to the coding process. The first cycle was used to identify codes and subsequent cycles to identify patterns or themes. Manual coding was undertaken, with colour highlighting of transcripts to code identified themes.

In phase two, initially the data collected from adolescent mothers and midwives was going to be considered separately. However, the use of the constant comparison method (Creswell, 2013) revealed that both groups' views were similar and simultaneous collection, analysis and interpretation of data facilitated the emergence of combined themes (see Figure G.2).

### **3.6 Trustworthiness**

When using narrative inquiry, it is imperative that trustworthiness and methodological rigour are maintained by addressing the transferability, dependability and credibility of the research process (Creswell, 2013; Graneheim & Lundman, 2004). These processes have been attended by providing a description of the study's setting, plus contextual information about participants and how they were identified to maintain transferability. To support dependability, a detailed description of the study's methodology is provided and experts in qualitative research were employed to review the cyclic process of thematic analysis. To increase credibility, supervisory consultants were

requested to validate the author's interpretation of the narratives by reading transcripts and discussing emergent themes until analyses were mutually agreeable. Emergent themes were also confirmed and substantiated as the author continued to gather further narratives, using 'constant comparison' methods to relate defined themes to the literature (Creswell, 2013). Validation of claims relating to understandings of human experience requires the researcher to provide reflective descriptions in ordinary language and explain the inductive processes that capture the commonalities across individual experiences (Polkinghorne, 2007). These processes are evidenced by providing examples of the coding process (see Appendix F) and verbatim quotes to support final themes.

Interpretive researchers may consider validity-adding criteria such as member checking and peer review ineffective due to their underlying assumption that there is an objective reality which can be converged upon (Angen, 2000; Rolfe, 2006). Despite this, Polkinghorne (2007) suggests giving participants the opportunity to check the researcher's interpretation to see whether it captures the essential meaning behind their experience. In this study, member checking was attended by offering participants the opportunity to validate the authenticity of the final interpretation of their narrative by reading a summary of the research findings, although none requested to do so. The researcher did however attempt to verify interpretations with participants throughout the interview process, explaining at natural speech intervals what she thought had been implied, suggested to validate understanding and ensure an accurate interpretation of the story (Silverman, 2011).

The one story that stood apart, in that the participant asserted her SNS use provided no supportive factors despite describing frequent SNS engagement to remain connected to friends and family, was fully explored when interpreting the findings of the study. Through the presentation of this story, the researcher's influence and perspective

are openly acknowledged during the interpretation process (Denzin & Lincoln, 2011). See section 4.6 of the paper that follows (paper two, p70) for further discussion concerning trustworthiness of the data.

### **3.7 Researcher Positioning**

This study has been, and is, a labour of love. As a 16-year-old mother back in the 1990s, I was very fortunate to have received essential practical and emotional support from my family and friends. My family's support was unfaltering; although, as my friendships slowly evolved with my new role as a mother, so too did my newly prioritised values alter the very definition of true 'friendship'. I developed an exceptional group of friends during my last two years of high school, known in the UK as 'sixth form college'; however, there were times when I felt isolated and desperately longed to share experiences with another young mother 'walking in similar shoes': a mother like me, studying hard to finish school, completing homework while rocking a baby, someone experiencing my journey. Indeed, opportunities to seek out and link with like-minded peers in the absence of social media were extremely limited.

Seventeen years later, as an experienced midwife passionate about supporting pregnant and parenting adolescents, I found myself providing midwifery care in an 'outreach support' role in a geographically diverse area of WA. My colleague and I, both social users of Facebook, initiated a closed-access group for the adolescent mothers in our care. At one time, 80 adolescent mothers were communicating through this online platform; some had birthed twins, some returned to education and training, some of them met face to face with their children if they lived close by. Although my colleague and I were careful to let them 'join' the group themselves, give no direct or potentially controversial clinical advice, and respect professional boundaries within our

communications, we were still instructed by health service personnel to cease engaging with clients and mothers using social media.

We requested barriers and enablers be identified and addressed to continue to engage with these mothers using this widely accessible platform, which enabled ‘continuous care’ by both midwives and peers, free of time or place hurdles. This initiative seemed so progressive and essentially logical to the provision of health care for a geographically diverse and marginalised group of young women yet appeared so controversial. It became evident that research was needed to ascertain what value these mothers placed on their online interactions and what, if any relevance this may hold for midwifery practice.

My familiarity in both being an adolescent mother and working closely with this age group of parenting women provided me with a sound insight into the daily issues that many adolescent mothers might face. Despite the advantage of experience, it was imperative that I maintained a stance of naivety to avoid introducing my own biases into the interpretive process. In this way, I positioned myself solely as a researcher so that I remained open to unfolding events and exerted as minimal influence as possible. Otherwise, familiarity with adolescent motherhood, midwifery and social media engagement may have impacted what would otherwise be viewed as an entirely new phenomenon. I also reflected on my position at all stages of the research process as suggested by Berger (2015). Reflexivity is discussed further on page 69, section 4.5 of the paper that follows, paper two.

The inherent value in using narrative inquiry to explore the nuance of online experience is now described by the researcher using a peer-reviewed paper, published in the *Journal of Advanced Nursing*, a high-ranking international journal. This paper provides a critique of the methodology in that it explains the appropriateness of narrative

inquiry to address the research question and fill the gaps in the literature. Research process challenges are also identified and discussed in this paper (see paper section 4.7, p70).

### 3.7.1 Declaration of Co-authorship and Contribution

<p><b>Full bibliographic reference</b></p> <p>to the item/publication, including authors, title, journal (vol/pages), year.</p>	<p>Nolan, S., Hendricks, J., Williamson, M. &amp; Ferguson, S. (2018). Using narrative inquiry to listen to the voices of adolescent mothers in relation to their use of social networking sites (SNS). <i>Journal of Advanced Nursing</i>, 74(3), 743–751.  DOI:10.1111/jan.13458</p>
<p>Status</p>	<p>Accepted and In Press  √ Published</p>

Nature of Candidate's Contribution, including percentage of total

<p>Nolan, S is responsible for 50 per cent of the total contribution, the design and implementation of the research, the analysis of the results and for writing the manuscript.</p>
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Nature of all Co-Authors' Contributions, including percentage of total

<p>Hendricks, J (25%), Williamson, M (15%) and Ferguson, S (10%) contributed to the design and implementation of the research, to the analysis of the results and to writing the manuscript.</p>
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Has this paper been submitted for an award by another research degree candidate (Co-

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Author), either at CQUniversity or elsewhere? (if yes, give full details)

No.
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Candidate's Declaration

I declare that the publication above meets the requirements to be included in the thesis  
as outlined in the Research Higher Degree Theses Policy and Procedure

18 March 2019

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(Original signature of Candidate)

Date

**3.7.2 Paper Two**

Nolan, S., Hendricks, J., Williamson, M. & Ferguson, S. (2018). Using narrative inquiry  
to listen to the voices of adolescent mothers in relation to their use of social  
networking sites (SNS). *Journal of Advanced Nursing*, 74(3), 743–751.  
DOI:10.1111/jan.13458

# Using narrative inquiry to listen to the voices of adolescent mothers in relation to their use of social networking sites (SNS)

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Email: sam.nolan@cqu.edu.au**Funding information**

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**Abstract****Aim:** This article presents a discussion highlighting the relevance and strengths of using narrative inquiry to explore experiences of social networking site (SNS) use by adolescent mothers.**Background:** Narrative inquiry as a method reveals truths about holistic human experience. Knowledge gleaned from personal narratives informs nursing knowledge and clinical practice. This approach gives voice to adolescent mothers in relation to their experiences with SNS as a means of providing social support.**Design:** Discussion paper.**Data sources:** This paper draws and reflects on the author's experiences using narrative inquiry and is supported by literature and theory. The following databases were searched: CINAHL, Cochrane Library, Medline, Scopus, ERIC, ProQuest, PsychINFO, Web of Science and Health Collection (Informit). Key terms and Boolean search operators were used to broaden the search criteria. Search terms included: adolescent mother, teenage mother, "social networking sites", online, social media, Facebook, social support, social capital and information. Dates for the search were limited to January 1995–June 2017.**Implications for practice/research:** Narrative research inherently values the individual "story" of experience. This approach facilitates rapport building and methodological flexibility with an often difficult to engage sample group, adolescents.**Conclusion:** Narrative inquiry reveals a deep level of insight into social networking site use by adolescent mothers. The flexibility afforded by use of a narrative approach allows for fluidity and reflexivity in the research process.**KEYWORDS**

adolescent mothers, narrative approach, narrative inquiry, narrative method, social networking sites Facebook, social support, stories

## 1 | INTRODUCTION

Today's challenges in terms of researching adolescents continue to be thought of in terms of risks and opportunities. Challenges stem

not only from adolescents' engagement in risky behaviours such as substance misuse, unprotected sexual activity and early parenting (Hale, Fitzgerald-Yau, &amp; Viner, 2014; Ireson, 2015), but also from the ways research may be conducted. Research into adolescents is often

problematic (Poole & Peyton, 2013; Schelbe et al., 2014) with many of the life experiences, understandings and beliefs that place young people's health at risk considered difficult to quantify (Rich & Ginsburg, 1999). Qualitative research methods afford researchers ways to connect with the adolescent population because qualitative methods explore experiences, context and motivation of why people act in certain ways and how experiences are lived. Rich and Ginsburg (1999) attest that qualitative methods inform researchers how to vary their research interactions to best meet the differing needs of adolescents. Furthermore, researchers must now consider the use of the Internet and WiFi, a global phenomenon, as the preferred method of adolescent communication (Pew Research Centre, 2012).

This discussion paper outlines the relevance and strengths of Narrative Inquiry as a method to gather and analyse adolescent mothers' personal narratives of support. The voice of the adolescent mother, in relation to use of social networking sites (SNS) as a means of support is illuminated using narrative inquiry (Authors). Whilst previous studies into adolescent mothers' use of computer-mediated support have incorporated elements of qualitative data collection and analysis, the voice of the adolescent mother has been silent in terms of the motivations and values associated with online engagement. Four mixed method studies (Dunham et al., 1998; Hudson et al., 1999; Kauppi & Garg, 2008; Sherman & Greenfield, 2013) and one qualitative study (Hudson et al., 2009) thematically analysed the content of adolescent mothers' online messages. Hudson et al. (1999) and Kauppi and Garg (2008) also collected data using structured interviews. Whilst these methods offer valuable insight into the types of social support harnessed via SNS, detailed personal narratives offer a deeper level of contextual understanding. The voice of the adolescent mother, brought into focus by the explicit use of Narrative Inquiry, highlights the significance of and the value attributed to engagement in online support networks. By highlighting the experiences of the author, it is hoped that healthcare providers and researchers worldwide are afforded a greater appreciation of the ability of narrative approaches to uncover the meaning behind adolescents' lived experiences.

## 2 | BACKGROUND

Narrative has been widely used to address the complexities and subtleties of human experience in teaching and learning (Beattie, 2009; Craig, 2011; Stone, Wilson, & Beresford, 2014) and is now used in both social and human science research. There is currently greater appreciation that personal narrative is a powerful way to generate new knowledge, with this method having been used to inform nursing practice and education (Kucera, Higgins, & McMillan, 2010; Mangum & Avery, 2006; McAllister et al., 2009) and explore women's experiences of—labour and birthing (Ireland et al., 2011; Miller, 2009; Straus, McEwen, & Hussein, 2009), breastfeeding (Ryan, Bissell, & Alexander, 2010) and motherhood (Brand et al., 2014).

For the purpose of this paper, "adolescence" refers to ages "between 10 and 19 years" (World Health Organization, 2014) and a

### Why is this research or review needed?

- To highlight the relevance and strength of using narrative inquiry to explore experiences of social networking site use by adolescent mothers
- To inform healthcare providers/researchers of the benefits of using a narrative approach to uncover the hidden meanings behind and attributed to, adolescent mothers' engagement in online social networks

### What are the key findings?

- The experiences of adolescent mothers are given voice using this methodological approach, highlighting the motivations and values placed on SNS as a source of social support
- Adolescent mothers' use of SNS as a mechanism of social support is made explicit using narrative inquiry

### How should the findings be used to influence policy/practice/research/education?

- Reflection on the knowledge gained from this paper may encourage researchers or healthcare providers to consider using narrative inquiry to explore the nuances of personal experience in adolescent groups
- Illuminating the value of "giving voice" may influence the way data are collected when exploring innovative approaches to care or education service provision

"social networking site" describes any web-based communication platform that enables users to create public profiles, form relationships, build networks and facilitate socially relevant interactions between "friends" on the site (Ellison, Steinfield, & Lampe, 2011; Wink, 2010). Notably, there are challenges for researchers working with adolescents in addition to those that accompany any other clinical research. These include issues around recruitment and retention of participants (Moolchan & Mermelstein, 2002; Nguyen et al., 2012; Steinbeck et al., 2008) and ethical concerns around consent and confidentiality (Battles, 2010; Brooks-Gunn & Rotheram-Borus, 1994; Hoagwood, Jensen, & Fisher, 2014; Moolchan & Mermelstein, 2002; Spriggs, 2010).

Adolescent mothers as a specific sub-group of adolescents have also been found to be a difficult cohort to recruit and with whom to maintain long-term engagement (Asheer et al., 2014; Pinto-Foltz, Logsdon, & Demick, 2011; Seed, Juarez, & Alnatour, 2009). Such challenges require consideration when designing research studies. The purpose of this discussion paper is to highlight and discuss the relevance, strengths and value of using narrative inquiry to explore adolescent mothers' lived experiences in relation to SNS use.

### 3 | DATA SOURCES

This discussion paper is based on the experiences of the author and is supported by literature and theory. The author used narrative inquiry to explore adolescent mothers' experiences of SNS use, particularly in terms of any social support or social capital-related benefits that such use may provide. The following databases were searched: CINAHL, Cochrane Library, Medline, Scopus, ERIC, ProQuest, PsychINFO, Web of Science and Health Collection (Informa). Key terms and Boolean search operators were used to broaden the search criteria. Search terms used were: adolescent mother, teenage mother, young mother, "social networking sites", online, email, messages, Internet, web, computer, social media, Facebook, social support, social capital and information. Dates for the search were limited to 1 January 1995, as this date precedes the first seminal study related to computer-mediated support for adolescent mothers identified (Dunham et al., 1998), to June 2017.

### 4 | DISCUSSION

A narrative approach has not been used before with adolescent mothers who have chosen to access SNS as a social support mechanism. By using personal narratives, the author could provide a rich understanding of the meanings behind adolescent mothers' decision to engage in SNS use. In the seminal words of Connelly and Clandinin (1990): "narrative and life go together and so the principle attraction of narrative as method is its capacity to render life experience, both personal and social, in relevant and meaningful ways" (p10).

#### 4.1 | Underpinnings of the methodology

##### 4.1.1 | The interpretive process

Narrative methods of inquiry follow an interpretive process with a constructionist resolve. Integral to this resolve is a belief that "truth" or knowledge is socially constructed by individual meanings and interpretations placed on events or experiences. Knowledge is not considered an entity that can be discovered objectively and separately to an individual being (Grotty, 1998; Lincoln & Guba, 1985). Stories and the narratives that evolve from them are therefore representations rather than reproductions of the meanings behind stories as they are told. Each version is considered to be equally valid rather than any one perspective claiming a single "truth" (Denzin, 2000).

The intent of interpretive research is to understand phenomenon and to interpret findings. Whilst quantitative methods lend themselves to measuring types and quantity of SNS use (Logsdon et al., 2014) and content analysis enables theme development from online messages (Sherman & Greenfield, 2013), the use of personal narrative can explore deeper meanings and motivations behind online experiences. The iterative nature of interpretive research enabled

the author to respond to findings and follow changes in the direction of each story as required to further explore themes and ideas.

##### 4.1.2 | Narrative inquiry

A narrative framework obligates researchers to listen to the human impulse to tell stories and affords them special access to the human experience of time, order and change. Narrative inquiry involves an awareness that what is told reflects largely on who is doing the "telling" as well as where and when the story is being told (Clandinin & Connelly, 2000b). Narrative inquiry demonstrates a unique ability to uncover and interpret the meanings behind individual experiences. The benefits attributed to adolescent mothers' engagement with SNS, identified using narrative inquiry, point to positive mental-health outcomes and enhanced feelings of social connection (Authors).

The study of narrative, therefore, is the study of the ways humans experience the world. It is considered equally correct to say "inquiry into narrative" as it is "narrative inquiry" (Clandinin & Connelly, 2000a). Clandinin and Connelly (2000a) explain that "narrative" names not only the patterns of inquiry but the structured quality of the experience to be studied. For this paper, their distinction was preserved with the phenomenon being called a "story" and the inquiry "narrative". Connelly and Clandinin (1990) claim:

*"that people by nature lead storied lives and tell stories of those lives, whereas narrative researchers describe such lives, collect and tell stories of them and write narratives of experience" (p2).*

Using this approach, the author could interpret what SNS use means to an individual mother, at particular times, in certain situations and how mothers make sense of such experiences from their own perspectives. This in-depth knowledge enabled the author to further develop themes and ideas in ways that may assist educators, practitioners and policy makers to enhance or promote any benefits attributed to these mothers' use of SNS.

The flexibility offered by the use of a narrative approach allowed for fluidity and reflexivity in the research process (Riessman, 2008). This type of flexibility is considered particularly valuable when motivating adolescent research respondents to elicit detailed stories of experience (Bassett et al., 2008; Erickson, Gerstle, & Feldstein, 2005; Mack, Giarelli, & Bernhardt, 2009). The author's ability to motivate participants to elaborate and to describe experiences in detail added a deeper level of understanding to their often-brief initial responses and thus to the overall narrative of their experience of SNS use.

The author acknowledged that the opportunity to tell their stories about motherhood may have been an uplifting and empowering experience. Rappaport (1995) attests that:

*"the practical implications of a narrative approach lead us to 'listen to, amplify and give value to the stories of the people we serve. We are led to help people to*

discover their own stories, create new ones and develop settings that make such activities possible—all consistent with the goal of empowerment" (p.796).

The overarching impression received by the author was that the mothers felt empowered by the opportunity to share stories of stigma, motherhood and the experience of SNS use.

## 4.2 | Narrative interviewing

The goal in narrative interviewing is to generate detailed accounts rather than brief answers or general statements (Riessman, 2008). The author used a narrative interviewing technique recommended by Riessman (2008) so that the interpretive process began during the conversation, listening in an emotionally attentive and engaged way, essential to attempting to enter the world as experienced by another. Riessman (2008) asserts that establishing a climate that allows for storytelling requires longer turns at talk than are customary in ordinary conversations. In this climate, the listener must allow one story to lead to another, explore associations and meanings that may link several stories, whilst encouraging and appreciating the intricate detail of experience.

Moreover, Mack et al. (2009) attest that a key factor in engaging adolescents in the research process is to develop rapport and show genuine interest in their feelings and ideas. Narrative approaches facilitate such rapport building as they allow participants to tell stories in their own way and to focus on key issues that are important to them (Clandinin & Connelly, 2000b; Ziebland, 2013). This inherent dynamic enabled the author to develop rapport and demonstrate a genuine interest in the unique contribution of individual participants.

At the beginning of their narrative interviews, adolescent mothers described a "day in their lives". This opening allowed them to tell detailed stories of their daily routines and experiences of support. It encouraged them to talk freely and share extended accounts relating to the context of their lives as adolescent mothers. The author was required to listen with empathy and understanding to enable the development of a trusting relationship in which to share experiences (Mack et al., 2009).

Participants often described feeling negatively judged by others in society and perceived a strong social stigma associated with adolescent motherhood. Ellis-Sloan (2014) confirms that stigma is still an influential part of the experience of teenage motherhood and Brown (2015) proffers that the media often contributes to the negative portrayal of adolescent mothers. Madill (2012) explains the importance of using empathy when interviewing populations whose members are not used to having others show interest in their lives or experiences. By demonstrating empathy, the author attempted to enhance the empowerment associated with the experience of storytelling (Rappaport, 1995).

Interviews were largely unstructured in style with participants asked to describe their experiences of using SNS. Exploration of support provision and events requiring further explanation were examined in the natural flow of the story being told. Interviewing aimed

to delve deep beneath the surface of superficial responses to obtain true meanings that individuals assign to events and the complexity of their attitudes, behaviours and experiences. Denzin (1989) asserts that two worlds coexist to form the human experience; the deep and the surface. The surface world consists of everyday events and experiences and is visible and open for others to witness. The inner, or deep world, contains personal thoughts and feelings innate to the inner-self which is intermittently but not entirely revealed to others. To create a context from which to explore the inner world of adolescent mothers, the author moved backward and forwards around online events which were deemed significant by the participant (Mishler, 1991).

This questioning technique encouraged participants to communicate their underlying attitudes, beliefs and values that are so central to this method. Prompts encouraged details such as when, how and why events occurred, associated feelings and how these experiences reflected on their role as mothers. Peer-sharing of knowledge and information via SNS was thus not simply deemed "informational support" at a surface level but given deeper meaning by many participants as self-esteem enhancing and confidence-building, not only in terms of receiving advice but in their perception that they have a valued role in helping others.

## 4.3 | The importance of time, language and context

Riessman (2008) describes narrative as: "extended accounts of life in context that develop over the course of single or multiple research interviews or therapeutic conversations" (p.6). She attests that narratives, or stories, have meaning when they are interpreted at a particular time and within the confines of a particular culture. Clandinin and Connelly theorize that events have a past, a present and an implied future (2000b). Historians proffer similar wisdom in that narratives have an inherently temporal thread, with current events being understood in the context of past experiences; providing a guide for future actions (Carr, 1986; White & Mitchell, 1981).

This notion of temporality was attended to by focusing on experiences of SNS use since becoming mothers. Participants illustrated the temporal thread, recognizing that their experiences had taken on a new significance since becoming mothers with new meanings and values attributed to their use of SNS. Described experiences were often of past events relating to SNS use, relating to "what happened before", or "what happens now" and to implied ways future engagement with SNS may be affected by such events or happenings. Examples being frequently stated intentions to remain actively engaged with SNS following positive experiences of support.

Experiences are generally contextualized in terms of shared culture, language and at a given moment in time (Riessman, 2008). Riessman (2008) and Andrews, Squire, and Tamboukou (2013) emphasize that in terms of narrative storytelling, language is what connects shared experiences enabling the construction of shared meaning. For Gadamer (1989), language is the medium where substantive understanding and agreement take place between two

people. It was, therefore, important that the author, the listener, share commonalities of language and culture to capture and relay the meaning of participants' stories.

The author shared the same first language, lived in the same societal structures as the participants, worked extensively with adolescent mothers in her role as a midwife and was "literate" concerning SNS use. These commonalities enabled the author to understand and interpret the participants' stories and place the findings in context, in a specific time and place. That is, in the context of being an adolescent mother, engaging in online communities using a mobile device such as a phone or tablet and largely from in their home environments.

#### 4.4 | The structure and use of, stories

Narrative inquiry rests on the epistemological assumption that human beings make sense of random experience by the imposition of story structures (Duff & Bell, 2002). Stories are constantly being restructured in the light of new events because they do not exist in a vacuum, but are shaped by lifelong personal and community narratives (Webster & Mertova, 2007). "Restructuring" of events often occurred in the mothers' stories alongside the advent of adolescent motherhood. Participants described their lives as having taken a fundamental turn, altering their identity in society and social groups and shifting their focus and lifestyle choices.

Storytellers select elements of experience to which they will attend and pattern the elements in ways that reflect the story structure of our particular culture (Cortazzi, 2014). Stories in Western culture tend to have a beginning, a middle and an ending (Riesman, 2008), a sequence of actions or events and often include pivotal moments which can represent significant changes or realizations, sometimes known as "epiphanies" or life defining moments (Denzin, 1989). Denzin (1989) describes "epiphanies" as "experiences whereby having had the experience the person is never quite the same again" (p15). Several participants in this study described SNS use as "a lifeline", something they would be "lost without" now they are mothers. This demonstrates the relevance of exploring the deeper meaning behind experiences.

Stories began with a discussion about becoming mothers, the "beginning" of the story, to begin the process of storytelling and provide cultural context and background. Stories often relayed feelings of isolation following disconnection with peers and school life, evolving social groups that include other parents and the stresses and anxieties associated with motherhood. "Epiphanies" included the social and emotional changes that followed motherhood, often with subsequent realizations that SNS use was now the easiest way to remain in regular contact with peers, or to "meet" other mothers. Narrative inquiry allowed adolescent mothers to express the unique form of support SNS availed them particularly as a means to express their doubts in a non-judgmental forum; as a way of expressing their personal stresses; and as a means of gaining confidence in their new role. In short, narrative inquiry provided adolescents with a voice, so that they could impart the value of feeling socially connected via

SNS. The end of the story, from the author's perspective, was the moment the interview ended, but the story is ongoing, still being experienced, lived and told by the individual (Clandinin & Connelly, 2000b). Using narrative inquiry allowed the author to present the stories of participants' experiences holistically in all their complexity and richness. Listening to the voices of those in certain situations or with specific conditions is a recognized and valued strategy when designing individualized health care or education services (Ehrlich & Dannapfel, 2014; Laukka, Rantakokko, & Suhonen, 2017; Robotin et al., 2017). Having identified the deeper meanings behind and attributed to, adolescent mothers' use of SNS the author was led to consider future ways in which healthcare professionals could possibly embrace SNS as a tool to further enhance social capital for adolescent mothers.

#### 4.5 | Researcher position—reflexivity

Heidegger (1962) coined the term "hermeneutics" which is generally used to refer to the interpretation of the meaning of cultural objects, (texts and documents) and social practices. The philosophical hermeneutic position that guided this study holds that researchers cannot transcend their own historical and situated embeddedness; thus, textual interpretations are always deemed perspectival. The background experiences of the author produced understandings through prolonged interaction with the narratives. The social world is considered a subjectively lived construct and emphasizes the reflexive nature of the research process. The subjective nature of the construction of meaning, both by research subjects and researchers, for example during interviews, is considered a crucial and positive component of research using interpretive approaches (Andrews et al., 2013). Reflexive positioning enabled the author to allow her history and experience of working with adolescent mothers to inform the research process and enhance engagement with participants. The author considered this to be a significant strength of using narrative inquiry.

To illustrate the tenet of subjective interpretation, one adolescent mother claimed that SNS use provided her with no social support at all, that she simply "talks" to family and friends using this medium because it is easier and faster than other forms of communication. The mother actively used SNS to communicate with others, both prior to and after the recorded interview, whilst sharing lunch and interacting with the researcher and her extended family. She interpreted her SNS use in terms of a "boredom" alleviating activity rather than a form of social support, maintaining ambivalence in terms of any personal value such use may provide.

For Gadamer (1989), the point is not to interpret an action through the motivations of which the individual has subjective consciousness, but rather to concentrate the analysis on the form of life within which the action unfolds and acquires meaning. The author, therefore, remained aware of and reflected on, her relationship throughout all stages of the research process (Denzin & Lincoln, 2011). Narratives were revisited repeatedly, using both individual

parts of experience and the whole, spiralling the "circle of hermeneutics" until the author reached sensible meanings of the experiences, free from inner contradictions (Kvale, 1996).

#### 4.6 | Maintaining trustworthiness/rigour

Connelly and Clandinin (1990) remind narrative inquirers to listen closely and respond to their critics due to the intersubjective quality of the inquiry, a central tenet of narrative. They explain that: "to dismiss criticism of the personal and interpersonal in an inquiry is to risk the dangers of narcissism and solipsism" (p10).

When using narrative inquiry, it is imperative that trustworthiness and methodological rigour are maintained by addressing the transferability, dependability and credibility of the research process (Creswell, 2013; Graneheim & Lundman, 2004). The author attended to these notions by providing a description of the study's setting, plus contextual information about participants and how they were identified to maintain transferability. To support dependability, a detailed description of the study's methodology was provided and experts in qualitative research were employed to review the process of thematic analysis. To increase credibility, supervisory consultants were requested to validate the author's interpretation of the narratives by reading transcripts and discussing emergent themes until analyses were mutually agreeable. Emergent themes were also confirmed and substantiated as the author continued to gather further narratives, using "constant comparison" methods to relate defined themes to the literature (Creswell, 2013).

Validation of claims relating to understandings of human experience requires the researcher to provide reflective descriptions in ordinary language and explain the inductive processes that capture the commonalities across individual experiences (Polkinghorne, 2007). To improve the trustworthiness of narrative interpretation Polkinghorne (2007) suggests giving participants the opportunity to check the final interpretation to see whether it captures the essential meaning behind their experience. The author therefore offered participants the opportunity to validate the authenticity of the final interpretation of their narrative by reading a summary of the research findings, although none requested to do so.

The researcher did however attempt to verify interpretations with participants throughout the interview process as suggested by Silverman (2011), explaining at natural speech intervals what she thought had been implied to validate the understanding and ensure an accurate interpretation of the story. The story that stood apart in essence, in that the participant maintained that SNS use provided no supportive factors despite frequent SNS engagement was explored fully in the findings of the study to minimize personal interjections of bias in the interpretation process (Denzin & Lincoln, 2011).

#### 4.7 | Challenges navigating with narrative and strategies to be considered

Narrative methods rely on detailed accounts of life experiences as described, or storied, by participants. Adolescent mothers, typical of

adolescent research respondents in general, often needed prompting to elicit detailed stories (Erickson et al., 2005; Mack et al., 2009). Researchers have alluded to the familiar monosyllabic responses often offered by adolescents in research scenarios (Bassett et al., 2008) which were commonly encountered by the author. For example, when exploring whether those who offered support had changed since becoming a mother, one participant answered; "No, it's the same (people)". With gentle prompting, however, she went on to describe "meeting" lots of young mothers via Facebook, how they shared experiences, learned from each other and immensely valued the connection. Despite the need for prompting to encourage detailed accounts of experience, the interviews were collaborative as recommended by Mishler (1991), in that the author repetitiously searched for the meaning behind online experiences by revisiting events and moving from one part of the story back to others.

A significant challenge faced similarly by preceding researchers of adolescent mothers (Asheer et al., 2014; Pinto-Foltz et al., 2011; Seed et al., 2009), related to the practical difficulties of arranging interviews and maintaining engagement. Pinto-Foltz et al. (2011), Seed et al. (2009), Asheer et al. (2014) and their respective associates recommend persistence and flexibility when making contact with adolescent research participants and also suggest provision of assistance with transport, telephone and media access to facilitate both contact and participation. In line with these recommendations, the author remained flexible in terms of chosen interview locations, arranged transport for mothers to attend group interviews and provided lunch at each interview as an added incentive to participate.

Adolescent mothers often rely on wider family structures for accommodation, practical and financial support (Pinzon & Jones, 2012), therefore despite using recommended strategies, the mothers were often; transient, with limited transport availability; difficult to maintain contact with and; had chaotic lives with competing demands. Whilst these factors negatively affected participant engagement and attendance in this study, they are not exclusive consequences of using this particular method. However, during their interviews, three mothers were intermittently expected to attend to pre-school aged siblings making narrative engagement extremely challenging. When convening the group interview, the author arranged on-site childcare provision to enable the mothers to engage exclusively in the interview process, however, competing family demands still had an impact on attendance. In light of these experiences, conducting narrative interviews in an online context/forum may require consideration when facilitating further research with groups of adolescent mothers (Boateng et al., 2016; Zwaanswijk & van Dulmen, 2014).

### 5 | IMPLICATIONS FOR HEALTH CARE AND RESEARCH

The use of a narrative approach has enabled adolescent mothers' voices to be heard and practitioners' awareness to be elevated in

terms of the meanings attached to adolescent mothers' use of SNS. By illuminating their voices, it is hoped that nursing, midwifery, education and mental-health services may become more responsive to adolescent mothers' use of SNS in terms of the social support and social capital such engagement may provide. It is anticipated that by providing a deep level of contextual understanding those caring for adolescent mothers may consider discussing SNS use as a potential means of support provision. At the least, adolescent mothers should be made aware of the possible ways SNS use may assist in improving certain elements of their psychosocial and emotional well-being. The iterative process of confirmation and development of themes using a narrative approach also led the author to consider further research implications, such as how SNS may possibly be used as a tool by healthcare professionals to further enhance the support afforded to adolescent mothers by their use of SNS.

## 6 | CONCLUSION

The storyteller's voice is foremost when using a narrative approach. The author was an active participant in the collaboration of the narrative, the reader of the text and was ultimately responsible for the interpretation of the story within the confines of larger social structures. The use of narrative inquiry ensured that themes developed were derived from a deep level of experiential understanding that other research methods may fail to ascertain. Methods that incorporate basic questions or simply examine online content may fail to explore the deeper meanings attributed to participants' use of SNS, such as the identified feelings of isolation, changing peer relationships and their need for self-confidence. Narrative research remains focused on the life that is being lived and the story that is told, by real people, in the real world and from their real experiences.

By giving voice to adolescent mothers, it is evident that the uses and gratifications of SNS offer them a unique form of valuable support in a timely and accessible format. Using narrative inquiry discovered that their use of SNS not only enables them to gain advice and information, but at a much deeper level offers a medium for honest disclosure of feelings, provides confidence and affirmation in their maternal role and relieves stress and anxiety. Listening to these mothers, encouraging them to use their own words about what has been significant in their lives when using SNS and the developments and transitions that occur in these online spaces, enriched their stories and transcended the limited range of understandings made possible from preconceived notions of reality. Illumination of the dimensions relevant to narrative provides a place for personal experience in culture and an appreciation that experience fundamentally alters the essence of living.

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## CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

## AUTHOR CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE (<http://www.icmje.org/recommendations/>)).

- substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

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### **3.8 Chapter Summary**

Narrative methods keep the focus of individual experience and the voices of participants uppermost. This chapter has given an overview of narrative methods as the interpretive framework that guided this research. Narrative inquiry was chosen as the framework to learn about adolescent mothers' SNS engagement, particularly in terms of any support (social capital) it may provide. The part of the chapter related to methods outlines the steps taken in carrying out this research, covers the selection of competent, mature minors and midwives as participants, the approach to data analysis, the maintenance of rigour and researcher reflexivity. This narrative research had a bi-phasic structure and data collection and analysis were integrated and iterative processes. The use of an emergent research design facilitated further exploration in terms of any practical application of findings to midwives and midwifery practice. In addition, using narrative methods enabled the researcher to revisit themes and concepts to gain clarity and depth of knowledge. This is pertinent when conducting research with adolescents, as despite facing challenges in terms of eliciting both initial and ongoing participation and needing to prompt in-depth responses, the chosen methods facilitated the provision of valuable insight about adolescent mothers SNS experiences that can be used to inform the midwifery profession.

### **3.9 Chapter to Follow**

Chapter four introduces the participants of phase one of the study. The voices of 'Amy', 'Della', 'Emma', 'Fiona', 'Jodie', 'Linda' and 'Lisa' are retold as stories to provide background context to each narrative. The stories provide context in terms of the time and place of interviews, each mothers' individual circumstances and existing supports. As Riessman (2013) explained, contextualisation in narrative research is important because 'no story speaks for itself' (p. 258).

## **Chapter Four: Participant Stories**

### **4.1 Introduction**

The preceding chapter described the interpretive framework and narrative methods as the most appropriate for asking, listening to and revealing adolescent mothers' unique voices. Narrative inquiry gives voice to participants through stories and in this study, enabled participants to provide narratives of SNS experience. The voices of 'Amy', 'Della', 'Emma', 'Fiona', 'Jodie', 'Linda' and 'Lisa', the participants of phase one, are retold as stories in this chapter to provide background context to each narrative. Interpretive research methods value the inherent ability of human subjects to narrate stories and make meaning of lived experiences (Sandelowski, 1991). Further, narratives are often viewed as comprising an account, actions, happenings, settings, discourse or plot, all of which contribute to how individual stories are communicated (Riessman, 2008). This chapter illuminates the setting, time and place of each narrative interview, as well as insight into the lives of participants. Ideally, this provides each 'voice' some contextual background and helps capture their engagement with SNS.

By engaging with participants in an informal and friendly manner, the researcher began the process of 'storytelling' upon meeting each subject, taking in the surroundings, relationships and personal activities that would connect their individual narrative to the relative context of their lives. This intention—to deeply understand the individual context of participants' lives—positions itself comfortably within the principles of the interpretive research paradigm (Scotland, 2012). Such processes are directed at understanding phenomena from an individual's perspective, investigating interactions between individuals as well as attempting to understand 'the historical and cultural settings of the participants' (Creswell, 2009, p. 8).

## **4.2 Participant Stories**

### **4.2.1 Introducing ‘Amy’**

Amy was 17 years old and her daughter Zara was 12 months old. Amy lived in public housing in a low socio-economic area about 30 minutes north of Perth with her mother, her two brothers and her sister, who were all significantly younger than her and attended primary and preschool. Amy considered her family to be her main supports, both practically and financially, particularly as Zara’s father was not involved in their lives. Amy also received Centrelink (government welfare) payments as her primary source of income.

I arrived at their home early one Saturday afternoon, a time and place chosen by Amy. She attended high school during the week at a local state high school that supports young mothers through its integrated childcare centre and parenting program, using local buses as her main form of transport. The house was a hive of activity on arrival, as her family migrated from Sudan some years ago, and several extended family members who live locally were visiting. Amy took me into the living area and her family members left to another space of the house to play with the children while we conducted the interview. Her mother brought me refreshments, a culturally traditional way of extending her welcome to me. I asked Amy about her experiences using SNS in her life as a mother, to which she placed immense value on the sense of connection it provided with her family who remain in Sudan. Amy changed schools following the birth of her baby, from a religiously affiliated school that was reluctant for her to return, to a local school with an integrated parenting program. Although she experienced some negative judgement from ‘friends’ at her old school, she now felt well supported in her new school environment alongside other adolescent mothers.

Midway through our interview, Amy's mother brought Zara back into the room for a breastfeed, and Amy imparted how much she enjoys the experience. Amy stated that SNS (particularly Facebook) helped her feel connected to the rest of the world easily and from home. She found this particularly important now it was harder to arrange outings with friends while dually caring for Zara's needs. She stated she engaged with Facebook several times every day, and often sought online advice from other mothers. Amy felt her SNS use relieved stress on occasions and increased overall confidence in her abilities as a parent. Most importantly, Amy valued feeling as though she was not 'missing out on anything' while she was at home being a mother due to her use of social media.

#### **4.2.2 Introducing 'Della'**

Della was 17 years old and her daughter Anna was six months old. Della lived with her mother and three younger siblings in rented accommodation about an hour south of Perth. Della considered her main supports to be her mother, sister and grandmother, while Anna's father was not currently involved in their lives. Della was not attending any education classes, but had previously been attending TAFE since the end of Year 9 (aged 15) when she left high school largely due to bullying. She planned to return to TAFE or tertiary education next year to study a business course or something 'a bit different', like horticulture, as she enjoyed gardening and design. Meanwhile, Della received Centrelink (government welfare) payments as her primary source of income. She stated she sometimes sensed negative societal judgement being passed when she is out in public with her daughter, but tried not to let this affect her confidence as a mother. Della stated she adored being a mother and that the joy Anna brought to 'everyone's' lives had made her feel emotionally closer to her family. Della also stated she felt very motivated to study and succeed since becoming a parent, having a dependent child's future as added consideration.

On arrival at Della's house one Saturday morning (a time and location chosen by Della) the atmosphere was relaxed and quiet. Della's mum was inside cleaning the house and Anna was asleep. Della guided me outside to the outdoor undercover area to proceed with the interview where she explained that she used Facebook on and off all day but did not place immense value on its use. She described the platform mainly as a form of entertainment, a means to keep in contact, and a place to share photos with distant family and friends. Della asked her mother and grandmother for advice about parenting and had no stated interest in joining mothers' groups on social media, or in seeking advice online. Della maintained longstanding friendships through Facebook communication, and used other peoples' newsfeeds to entertain her during the day when she was at home caring for Anna. Della valued the ease with which she could contact friends and family using Facebook and stated the positive feedback she received from them builds her confidence at times, and reinforced that she was 'doing a good job' as a mother.

#### **4.2.3 Introducing 'Emma'**

Emma was 16 years old and her daughter Zoe was eight months old. Emma lived with both her parents, her younger sister (aged four) and Zoe in a large privately-owned home in a relatively new suburb about 45 minutes north-east of Perth. Emma planned to return to school when the new school year commenced to complete Years 11 and 12 and hoped to continue with her studies at university once she had graduated high school; meanwhile, she received Centrelink (government welfare) payments as her primary source of income. The school she attended prior to discovering her pregnancy had since created an in-house creche facility to facilitate Emma's return to school, despite being religiously affiliated; indeed, this surprised her and her family, as this, in their view, was not commonly experienced by other families encountering adolescent pregnancy.

On arrival to Emma's home on a Saturday morning (a time and location chosen by Emma), her mother had gone grocery shopping, her father was gardening outside and her sister was playing in the house. Intermittently and throughout the interview, Emma was breastfeeding Zoe and attempting to entertain her sister, who desperately wanted to show me her singing, reading and dancing abilities.

Emma stated she enjoyed being a mother and felt extremely well supported by her family, friends and school community. Zoe's father was becoming more supportive and beginning to play a slightly more active role in her life of late; although, he and Emma were not in a relationship at that time. Meanwhile, she used Facebook to remain in contact with school friends she did not currently see much in a face-to-face context, and to communicate and share photographs with friends and family overseas in the UK. Emma admitted to scrolling through Facebook newsfeeds throughout the day to remain connected with friends and family and, described the immediate access to advice and emotional reassurance provided by other mothers as invaluable in terms of connecting with people 'who understand' the stressful challenges and issues related to motherhood.

#### **4.2.4 Introducing 'Fiona'**

Fiona was 16 years old and her baby Jonah was five months old. Fiona lived in public housing in a low socio-economic area on the outskirts of Perth with her mother, who migrated from Ghana and spoke minimal English. Fiona had an older brother and sister who both lived locally; her brother was married with a child and her sister lived alone. Fiona stated that mostly her mother and (secret) boyfriend (Jonah's father) provided her with emotional support.

On arrival to Fiona's home one Saturday morning (a time and location chosen by Fiona), her mother was positioned by the front door handwashing clothes in a large tub on the floor. Fiona stated this was how they did their laundry and that it took considerable

time at the weekend. Her mother also worked full time, however, did not provide much practical or financial help now that Fiona was considered 'independent' as a mother; hence, Fiona received Centrelink (government welfare) payments as her primary source of income.

Fiona attended a state high school and travelled there by bus each day. Jonah was collected daily from home at 6.30 am by a friend's mother who cared for him at her home-run, government-funded family day-care centre. Fiona travelled on the bus to collect Jonah from day care after school each day, finally getting home around 6.30 pm. She stated she often felt negatively judged and discriminated against for being an adolescent mother while traveling on public transport, and was often denied seating or assistance to enter or exit the bus. On Sundays, Fiona liked to catch up on sleep when Jonah was sleeping, but only once she had attended church with her mother. During the interview, Fiona's mother entered the room and presented me with an African wall rug as a gift, which she stated (using Fiona's interpreting skills) was for having demonstrated an interest in her daughter's life and wellbeing.

Fiona very much valued daily use of Facebook and other instant messaging applications to remain in contact with her family and friends, to share photos and to seek advice and reassurances about parenting challenges from other mothers. She valued the ease of access to other mothers' experiences the platform provided, and had 'met' many young mothers who had become supportive friends through her use of Facebook.

#### **4.2.5 Introducing 'Jodie'**

Jodie was 17 years old and her son Jake was three months old. Jodie lived in rented accommodation with her partner Kane and a housemate (friend) in a remote town about three hours east of Perth. On arrival to Jodie's house on a Wednesday at midday (a

time and location chosen by Jodie), she was alone in the house and Jake was sleeping in a bassinette.

Jodie reported feeling well supported by Kane and his family, her friends, both her own parents and her siblings, and stated these relationships had become much closer and more intimate since Jake's birth. Jodie and Kane were both currently studying Year 10 through a distance education program, and Jodie was keen to become a photographer and attend university in the future. Kane worked on a casual basis to earn money, while Jodie received Centrelink (government welfare) payments as her primary source of income. Jodie considered that having Jake had altered her life choices significantly, stating that on discovering her pregnancy (having previously dropped out of school and engaged in risky behaviours) she stopped smoking, drinking alcohol and using recreational drugs, and recommenced her studies.

Jodie used Facebook daily and belonged to eight closed groups created especially for adolescent mothers like herself, one of which she created and moderated to ensure appropriate and ethical conduct by all included members. She described these group memberships (and, thus, Facebook) as one of her most important support networks as a new mother, particularly due to her remote location. Jodie reported the platform also provided valuable emotional support in terms of relieving stress and boosting her confidence, helped her to remain connected to the world, find estranged family and friends, buy and sell baby goods, and facilitated widespread interest in her photography pursuits.

#### **4.2.6 Introducing 'Linda'**

Linda was 17 years old and her daughter Mary was two months old. Linda lived in public housing in a low socio-economic area just outside Perth with her mother and older brother. Linda's family migrated from Sudan.

On arrival at Linda's house on a Friday morning (a time and location chosen by Linda), her mother answered the door, informing me that Linda was not currently at home and that she was minding Mary in the meantime. Having called Linda, her mother invited me inside to wait, insisting Linda would not be long. Multiple extended family members were present, chatting loudly, and there were three young children playing at the back of the house. Mary was asleep on the floor in the lounge on a mattress. Finally, Linda appeared at the door carrying shopping bags and apologised for forgetting about the interview.

I asked if there was somewhere quiet to conduct the interview and Linda suggested we use her bedroom. Despite Linda's efforts to maintain order, her cousins entered the room excitedly on numerous occasions asking Linda to prepare fruit for them and open snack food packets. Linda obliged, stating she assumed much of the child care responsibilities when her family visited. Having tried three times prior to meet with Linda, I continued the interview despite the challenging circumstances.

Linda informed me she enjoyed being a mother and felt well supported by her family, church and school community, despite Mary's father not providing any support or presence in their lives. Linda attended a local state high school with an integrated parenting program and child care facility and received Centrelink (government welfare) payments as her primary source of income. Linda used Facebook regularly to connect and communicate with friends and family, but was careful to connect and share photos only through private messages, as she feared public access to her private life. Linda stated she received little, if any, support from her use of Facebook and considered it extremely 'unhelpful' at times, due to the potential for online conflict with friends. Despite her negative stance, Linda admitted to scrolling through Facebook newsfeeds regularly 'to alleviate boredom' and used the site as a platform to remain connected and play games

with friends. Linda also regularly checked her phone and received Facebook ‘notifications’ while I was present in her home post-interview, but when asked about the contact, she stated that it was purely to relieve boredom and was ‘nothing to her’.

#### **4.2.7 Introducing ‘Lisa’**

Lisa was 19 years old and her daughter Brianna was 17 months old. Lisa lived in her aunt and uncle’s rented home about an hour north of Perth in a newly expanding suburb. Along with her relatives, she lived with her four cousins. Danny, Brianna’s father, visited most evenings but did not live at the house with Lisa and her family. She felt well supported by her aunt and uncle, her mum, her cousins and school, and still attended a young parents’ program provided at the high school where she recently completed Year 12, despite not currently being enrolled in education. Lisa received Centrelink (government welfare) payments as her primary source of income, and did housework for her aunt, as she did not have any money left over to contribute to paying board or bills. Lisa identified as Aboriginal and found the Aboriginal Health Services helpful when she required transport to doctor’s appointments. Lisa also found getting around and socialising very hard due to living so far from the city and having to rely on public transport.

Lisa belonged to a closed mothers’ group on Facebook and described it as an invaluable source of information and support. The group provided her with timely advice and reassurance, as well as opportunities to ‘socialise’ at the weekend with a ‘virtual’ group of friends, which she described as highly entertaining and often the highlight of her week. Lisa referred to her daily use of Facebook as a ‘lifeline’, which dually kept her in regular contact with friends who were still attending school. She reported using the platform to share intimate feelings and receive reassurances, claiming her past experiences with depression may otherwise have re-emerged due to her current isolation

as a new mother. Lisa also reported having been openly judged and criticised for being a young mother, especially when she was regularly using public transport to travel to school. For example, one woman on the bus openly informed her it was ‘disgusting’ that school-aged girls had children. Hence, she described the online group as providing a necessary source of mutual understanding from other mothers experiencing similar situations and challenges.

### **4.3 Chapter Summary**

Chapter four provides contextual knowledge about participants of phase one of the study to facilitate engagement with their narratives relating to their online experiences of SNS use. Understanding the context of these adolescent mothers’ lives facilitated the researcher to gain rapport and engage in trustworthy dialogue about their SNS habits and any influence it has on their experience of motherhood. This understanding also facilitates others to decide whether findings from this WA study can be related to similar populations, those being other groups of adolescent mothers or other groups of mothers faced with similar circumstances.

### **4.4 Chapter to Follow**

Chapter five presents the findings of the first phase of this study. Adolescent mothers’ use of SNS was explored in relation to any social support or social capital it may provide, and the constructs of social support and social capital were also extrapolated in terms of their relevance to adolescent mothers’ SNS habits.

## Chapter Five: Findings (Phase One)

### 5.1 Introduction

The preceding chapter illuminated the context and setting of the narratives provided by the seven mothers who participated in phase one of the study. This chapter presents the findings of the first study phase, in which the participants were interviewed about their use of SNS and how such use may influence their experiences as mothers. Narrative methods facilitated the mothers to share their experiences of SNS use in terms of any supportive value (social capital) it may provide. To illustrate their experiences, findings from phase one are presented using a peer-reviewed paper published in *Midwifery*, a high-ranking international journal.

#### 5.1.1 Declaration of Co-authorship and Contribution

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Nature of Candidate's Contribution, including percentage of total

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Nolan, S is responsible for 55 per cent of the total contribution, the design and implementation of the research, the analysis of the results and to writing the manuscript.

Nature of all Co-Authors' Contributions, including percentage of total

Hendricks, J (30%) and Towell, A (15%) contributed to the design and implementation of the research, to the analysis of the results and to writing the manuscript.

Has this paper been submitted for an award by another research degree candidate (Co-Author), either at CQUniversity or elsewhere? (if yes, give full details)

No.

Candidate's Declaration

I declare that the publication above meets the requirements to be included in the thesis as outlined in the Research Higher Degree Theses Policy and Procedure

18 March 2019

.....

.....

(Original signature of Candidate)

Date

### 5.1.2 Paper Three

Nolan, S., Hendricks, J. & Towell, A. (2015). Social networking sites (SNS); exploring their uses and associated value for adolescent mothers in Western Australia in terms of social support provision and building social capital. *Midwifery*, 31(9), 912–919. DOI:10.1016/j.midw.2015.05.002



## Social networking sites (SNS); exploring their uses and associated value for adolescent mothers in Western Australia in terms of social support provision and building social capital



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### ABSTRACT

**Objective:** to explore the use of social networking sites (SNS) by adolescent mothers in Western Australia (WA) in relation to social support and the building of social capital.

**Design:** a constructionist narrative inquiry approach was employed to guide the research design and processes. Approval was gained from the university human ethics department. Sampling was purposeful and data were collected using in-depth interviews with seven adolescent mothers in WA.

**Setting:** interviews were undertaken within the homes of adolescent mothers across WA.

**Findings:** from within three fundamental domains of social support: tangible, emotional and informational support, provided by SNS use, five key themes were identified from the narratives. 'Social connectedness' was identified as a form of tangible support, sometimes termed 'practical' or 'instrumental' support. This theme incorporates connectedness with family, friends, and peers and across new and existing social groups. Three themes were identified that relate to emotional support: 'increased parenting confidence', 'reduced parental stress' and 'enhanced self-disclosure' afforded by use of SNS. 'Access to information' was identified in terms of informational support, with participants often highlighting SNS use as their primary portal for information and advice.

**Conclusions:** the findings of this study suggest that SNS use affords adolescent mothers in WA access to tangible, informational and emotional support and thus is a valuable source of social capital for these mothers. This study provides a platform for further exploration into this phenomenon, and possible implications include the potential for midwives and health care professionals to promote the benefits of SNS use with, and for, this group of mothers, or to incorporate SNS use into modern health care practices to further develop the potential for improved social capital related outcomes for them.

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### Introduction & background

Using a narrative approach this study explored the use of social networking sites (SNS) by adolescent mothers in Western Australia (WA). The aim of the study was to discover the uses and values associated with SNS use by this often marginalised group, in relation to social support and the building of social capital. For the purpose of this study adolescence refers to the ages between 10 and 19 as defined by the World Health Organisation (WHO) (2012).

Teenage motherhood poses significant long-term risks for both mother and child, including poorer health, educational and economic

outcomes (D. Department of Health, 2010; Australian Institute of Health and Welfare, 2012). Australia's teenage fertility rate was 15 babies per 1000 women aged 15–19 years in 2013 (Australian Bureau of Statistics, 2013). This rate is substantially less than that of the United States of America (U.S.) and the United Kingdom (UK) but greater than European countries like Switzerland and the Netherlands (Li et al., 2013). Teenage pregnancy and childbirth are recognised across developed nations as significant child and adolescent health issues, with adolescent mothers often marginalised due to both pre-existing and on-going social and economic disadvantage (Department of Health, 2010; Hansard, 2011).

In Australia, mothers receive postpartum midwifery care for a minimum of five days, either in hospital or at home. Ongoing support is then provided by a Child Health Nurse (CHN), via local child health clinics, giving information including but not limited to; parent supports, child health and development and; vaccination programs. Some States offer enhanced home visiting support

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programs for targeted clients, including adolescent mothers although the efficacy of such programs is often hard to demonstrate (Shaw et al., 2006; MacDonald et al., 2007; Barlow et al., 2011).

Social support has been correlated with better postpartum adjustment for adolescent mothers (Unger and Wandersman, 1985; Balaji et al., 2007; Keys, 2008; Whiteley and Brown, 2010; Brown et al., 2012; Mills et al., 2013) and parenting support programmes have also been recognised as valuable in supporting new mothers (Guest and Keatinge, 2009; Strange et al., 2014) although Ascheer et al. (2014) and Keys (2008) suggest these traditional services often fail to address the multidimensional problems encountered by adolescent mothers, such as limited finance and transport availability.

deCastro et al. (2011) supporting the earlier works of Cassel (1976) and Cobb (1976), claim that the provision of social support is a 'protective factor' and a buffer to stress, reducing incidence of, and vulnerability to postnatal depression, especially in adolescent mothers, who are demonstrated to be at higher risk of depression than older mothers (Reid and Meadows-Oliver, 2007; Collingwood, 2010; Yozwiak, 2010; Hansard, 2011).

Social support is also linked to social capital. Social capital may be seen as the resources that are invested into and produced by social relationships and networks and their value for both individuals and groups (Bourdieu, 1986; Coleman, 1997; Putnam, 2000). Online social groups have demonstrated potential in facilitating social support and building social capital for those marginalised from mainstream society for either health or social reasons (Barnfather et al., 2011; Gowen et al., 2012; Notley, 2009) and particularly for those at increased risk of depression (Griffiths et al., 2009; O'Dea and Campbell, 2011).

The Internet is used frequently by women seeking advice and information during pregnancy and childbirth (Romano, 2007; Larsson, 2009; Plantin and Daneback, 2009; Lagan et al., 2010), and numerous studies demonstrate the value of SNS use in increasing both social support and social capital for general populations of mothers worldwide (Ley, 2007; McDaniel et al., 2012; Gibson and Hanson, 2013; Jang and Dworkin, 2014; Morris, 2014; Niela-Vuén et al., 2014). For the purpose of this study a 'social networking site' is used to describe any internet website that enables users to create public profiles and form relationships with other users. Social networking sites can describe community-based websites, online discussions forums, chatrooms and other social spaces online.

Facebook, the most widely used SNS, is currently reported to have over 800 million daily users worldwide (Wilson et al., 2012), with 85% of high school respondents in Western Australia reported to be using SNS (Dooley and Scott, 2012). When Grieve et al. (2013) studied general populations of Facebook users they reported improved life satisfaction and a reduced incidence of depression attributable to the social connectedness experienced by SNS use. In 2014, the 'explosion' of social media has afforded the majority of Australian adolescents access to SNS via mobile phones or tablet devices. Adolescent mothers therefore have instantaneous access to information and support from SNS and online groups worldwide.

Studies to date that have explored the use of online support for adolescent mothers have either: created a specific discussion forum or computer network for the purpose of the study (Dunham et al., 1998a, 1998b; Hudson et al., 1999a, 1999b; Hudson et al., 2009; Hudson et al., 2012; Kauppi and Garg, 2008) or: analysed website message board content (Sherman and Greenfield, 2013), each identifying components of tangible, emotional and informational support provision. No studies have been undertaken in Australia to explore and understand the uses, values and meanings behind adolescent mothers' SNS use in terms of social support and social capital, and there remains a paucity of evidence regarding the values and experiences of online support for adolescent mothers both on a global and national scale.

This study explores the use of social networking sites (SNS) in WA as a support mechanism illuminating the uses and experiences of adolescent mothers.

#### Research question

To explore the use of social networking sites (SNS) by adolescent mothers in WA in relation to social support and the building of social capital.

#### Methods

This research is qualitative and follows a narrative inquiry approach. Narrative Inquiry is used by researchers wanting to uncover the meanings behind peoples actions and experiences (Huyh and Rhodes, 2011; Hynes et al., 2012). Narratives are the stories that people tell about their lives. Tellers, in this instance adolescent mothers shared specific life events made meaningful by linking them to other life events, and by providing temporal ordering of these events (Hydén, 1997). Narratives display the context for human activity – temporal, spatial, interpersonal and societal (Clandinin et al., 2011). Moreover, narratives are situated within a broader sociocultural context, thus reveal social structures and processes not just personal realities.

This method of inquiry follows an interpretive process with a constructionist resolve, believing that truth, or knowledge is socially constructed by the meanings and interpretations individuals place upon events or experiences, rather than being an entity that can be discovered objectively and separately to an individual being (Lincoln and Guba, 1985; Crotty, 1998). This study focused on the lives of adolescent mothers and their experiences of social support when in an online space using SNS, over time, within the personal, cultural, linguistic and social contexts of being a young parent.

#### Ethical considerations

Ethical clearance for this study was obtained from the University Human Ethics Committee through whom issues of confidentiality, anonymity, protection of participant's rights and emotional vulnerabilities, ownership of data, protection and long-term storage of data were addressed (Miller et al., 2012). Pseudonyms have been used to report all data findings.

In order to address gaining legal consent from 'minors' (aged under 18) participants were asked to confirm that they had 'parental responsibility' for their child or children within the inclusion criteria. 'Parental responsibility' means that there are no court orders in place, imposed by the Department of Child Protection & Family Support (CPFS) or any other agency, that give another individual legal responsibility for the child or children. This criterion served to ensure that the mother (participant) had been assessed as a 'mature minor', capable of responsible care of their child, and would thus be considered capable of providing informed consent to participate in research studies (Hunter and Pierscionek, 2007; Ward-Smith, 2008). Informed consent was obtained by the use of signed consent forms.

#### Data collection

##### Recruitment

The study was advertised within a series of WA newspapers inviting participation. Those offering participation contacted the researcher by email outlining their contact details. Participants were then approached by the researcher either by telephone or

email and provided with verbal and written information regarding the study. Contact numbers for external support agencies related to the emotional and psychological health of adolescents were included in the written study information. Inclusion criteria were: mothers aged 19 or under who lived in WA, spoke and understood English, used SNS, and had given birth to a live child or children with whom they resided and had parental responsibility for. 'Snowballing', as described by Creswell (2013) was also used, whereby participants were asked to share the study information with peers, identifying those willing to be contacted by the researcher. Recruitment continued until the researcher considered data saturation had occurred.

#### Interviews

Seven adolescent mothers who volunteered participation were interviewed using face-to-face, audio-taped, semi-structured interviews with open-ended questions lasting approximately 60 minutes. Interviewing took the form fashioned by Douglas (1985) termed 'creative interviewing', whereby the participant and the researcher, in an egalitarian, trusting way, creatively and openly shared experiences with each other in order to potentiate greater self-understanding and build rapport.

The interview opened with asking the participant to describe a typical 'day in their life', and then 'describe their experiences using SNS as a mother'. This facilitated open lines of communication and encouraged in-depth dialogue to enhance the quality of the interview. It also enabled the researcher to gain valuable social and cultural context in terms of the participants' experiences of adolescent motherhood in keeping with a narrative approach.

Participants often required further prompting to elicit extensive information relating to their SNS use in terms of any support it may provide. Bassett and associates (2008) alert researchers to the often mono-syllabic or minimal responses given to broad questions by adolescents, and similarly discovered that they often require prompting to provide elaborate dialogue. Participants were asked to describe their stories in detail, such as exactly how, when and why online events or experiences occurred, and what they meant to them.

Interviews were transcribed verbatim by the researcher and summarised into key events. As recommended by Silverman (2011) in order to avoid ambiguities related to the mutual understanding of questions or responses between the participant and the researcher, participants were offered the opportunity to validate the authenticity of the researcher's interpretation of their narratives.

#### Data analysis

Data analysis incorporated the constant comparison method. That is, there was simultaneous collection and analysis of data to facilitate a constant comparison of data and emergent themes (Creswell, 2013). This method was systematic, repetitive, and by the researcher revisiting the interview recording and transcripts multiple times ensured that the meaning and understanding gained was an accurate representation of the information contained in the narratives. As suggested by Saldaña (2012) there were two cycles to the coding process. The first cycle was used to identify codes and the second to identify the patterns or themes. Codes were refined and relabelled and key themes identified, often using direct wording from the narratives, sometimes termed 'in-vivo' coding (King, 2008). Manual coding was undertaken, with colour highlighting of transcripts to code identified themes.

#### Trustworthiness

Trustworthiness was demonstrated by addressing transferability, dependability, and credibility (Graneheim and Lundman, 2004;

Creswell, 2013). To ensure transferability, the researcher provided a detailed description of the study's setting, plus contextual information about participants and details of how they were selected. To support dependability, a detailed description of the study's methodology is provided and the analysis process was reviewed by two qualitative researchers. To increase credibility, supervisory consultants validated the interpretation of transcripts by reading descriptions and discussing the emergent themes with the researcher until a consensual interpretation was agreed.

#### Research findings & discussion

The five themes identified within the study are social connectedness, increased parenting confidence, reduced parental stress, enhanced self-disclosure and access to information.

#### Demographic data

The seven participants were aged 16–19 years, and all had one child. Their children ranged from 3 to 17 months of age. Five lived with parents, and were supported by them both practically and financially, one with extended family members and another independently with her partner and a friend. One had completed high school, four others attended schools with facilities for adolescent mothers intending to complete Year 12 (final school year before undergraduate university study), and two planned to return to education via TAFE (Technical and Further Education) or SIDE (Schools of Isolated or Distance Education).

#### Social connectedness

The theme social connectedness emerged clearly from within the narratives. The concept of 'connectedness' is described by Jsselstein et al. (2003) as a 'positive emotional appraisal' which is characterised by a feeling of staying in touch, of keeping up to date with other people's lives, and a sense of sharing, belonging and intimacy (p927).

This study discovered a similar sense of social connectedness afforded to adolescent mothers by their use of SNS as the connectedness discovered within general populations of mothers and Facebook users (Ley, 2007; Köbler et al., 2010; McDaniel et al., 2012; Gibson and Hanson, 2013; Grieve et al., 2013; Morris, 2014). Gibson and Hanson (2013) report that UK mothers particularly value Facebook as a means of remaining socially connected during the perinatal period, and Ley (2007) and Dunham et al. (1998) both reported a sense of commitment and community amongst relationships formed in specific US online mothers networks.

All participants expressed appreciation of the way SNS use gave them unlimited access to social relationships, minimising feelings of exclusion, or social isolation. Amy stated:

*'It's a way that we (family overseas) can socialise, and see each other, meet each other again, and it's just a really cool way of sharing with them and having social networks'.*

Fiona also clearly identified her feelings:

*'Connected, like you are still part of them (friends and family), it's important, and also it's good like if there's something new, or something new happens that you haven't seen you can all share it'.*

Moreover, participants identified the ability to maintain contact with school friends was enabled through the use of SNS, particularly because being a mother meant that they often could not socialise as they had before. Emma explained:

*'Mostly its communication, talking to friends that I don't really get to see any more, because obviously, I am not at school with them now, so, yeah it's a lot easier than having to organise to get out and go and see them'.*

Della also valued the friendship maintenance afforded by her use of SNS:

*'Like friends I've been out of contact with, some have a baby on the way, others have had their babies, so, and I guess we're all like on the same journey, so it's (Facebook) brought us back into contact, so not new, but old friends but with a new life'.*

This finding is supported by the work of Burke et al. (2011), and Ellison et al. (2007) in demonstrating the ability of SNS use to promote the formation and maintenance of relationships. Furthermore, Putnam's (1995) seminal work on building social capital by maintaining relationships within and across social groups supports this finding.

Three participants expressed the view that their use of SNS decreased feelings of 'missing out' whilst at home caring for their children. Amy clearly indicated:

*'Facebook is like, really good because sometimes you can think everyone else your age is out having heaps more fun than you are, but by using SNS you can talk to your friends and other mums your age and feel a bit more connected to the rest of the world and what is going on out there, and that you are not missing out on anything much really, and it feels better'.*

Similarly, Jodie stated:

*'Well, it's a day-to-day thing, so to me it's pretty important, it's what I usually do in my spare time, when (names baby) is asleep, and once I've cleaned the house and everything's done I will go on Facebook and just talk to people, see what's going on and check out the world'.*

Teppers et al. (2014) studied the relationship between Facebook use and loneliness and confirm that if the motive for using Facebook is to make and sustain friendships it has a positive outcome for adolescents. Schwartz (2012) also demonstrated positive effects of adolescents' Facebook use in terms of well-being and self-esteem with adolescents indicating that they valued the ability to stay socially connected, particularly as their Facebook friend networks were dominated by individuals they know in their life offline.

Facebook enabled these mothers to: create or maintain friendships and contacts either via specific groups or other people's online profiles; plan social occasions or; socialise from within the comfort of their own lounge-rooms. Fiona gave an example:

*'When (names a friend) writes something, if her friends all comment on it, I can scroll through her friends comments and profiles and see which ones also seem to be young mums who I might want to talk to, and I will comment them back, and then you can become friends like that'.*

When planning social events, Amy demonstrated the ease of using SNS:

*'Yes, sometimes, I might post up 'Is anyone free on Friday or Saturday who wants to come around and chill?', or 'does anyone want to go out with our children to the movies, or a wildlife park or somewhere else?', and see if anyone replies or responds to that'.*

Amy stated that:

*'Yes, it does (feel like a social life) and it's good, because you are interacting, socialising with people, at home, and it's easier, because you have a child'.*

Furthermore, SNS use afforded Lisa the means to have a fun-filled Saturday night communicating with friends without leaving the house, something that would otherwise be restricted by living an hour from the city, and limited access to transport. She explained:

*'Every Saturday we have an 'adults-only night' (in our Facebook group) where heaps of people send questions and we chat, they're called 'ice-breakers (laughs)'.*

The ability to remain 'connected' to friends, family and peers with ease, and without expense, by the use of SNS was valued by all the participants interviewed. This is substantiated by the work of Morris (2014) and Gibson and Hanson (2013) who discovered that connecting with others socially, in order to avoid the isolation that may come with new motherhood was most valued by mothers using Facebook.

The second emergent theme identified in this study was increased parenting confidence.

#### Increased parenting confidence

Parenting confidence may be defined as a parent's feeling of competence in the parenting role (Crncec et al., 2010). From the narratives it became evident that a significant effect of SNS use described was increased confidence, both in the mothers' role as parents, and with parenting strategies. Confidence appears to be increased by receiving positive affirmations, or 'likes' to posts, reassurances via SNS dialogue, and by the collective sharing of experiences and situations. Jodie explained:

*'It (Facebook) just makes me feel a lot better as a person and as a Mum, and it really helps my confidence as well'.*

Amy explained a scenario in which she sought peer support via SNS:

*'I really got only positive comments, and come-backs, like from people who experienced the same thing, and they told me what they did in the same situation, and that really helped my confidence'.*

Jodie elaborated further:

*'Well it makes me feel really good, like I've got a lot of people there to help me out, and I'd feel a little bit more calm, and confident, like I knew what I was doing now, where before I maybe didn't'.*

This finding is supported by Hudson et al. (2012) who found adolescent mothers in the US accessed emergency departments less frequently with their infants if they participated in an online group, although their specific network included nurse-initiated support.

Jodie suggested positive feedback increased confidence in her perceived ability as a mother:

*'It (Facebook) makes me feel good because lots of people will comment, and compliment on them (photos), and say things like what a good mum I am and that stuff, so it's good, it makes me feel better'.*

Della expressed similar views:

*'Well I suppose it (positive comments on Facebook) makes you feel good, and I mean I know I'm doing good things but it's nice to be recognised as well, it's good'.*

These findings suggest that positive affirmations via SNS communication can increase adolescent mothers' confidence in their parenting role and strategies. This is supported by Toma and Hancock (2013) who also suggest that Facebook use affirms self-worth. Although this finding is inconsistent with studies by Pea and associates (Pea et al., 2012), and Sharma and Dy (2010) who

found that self-confidence and emotional well-being may be eroded by use of SNS these studies did not consider the motivation for SNS use (Teppers et al., 2014).

Another theme identified that demonstrates a positive emotional effect of SNS use is reduced parental stress.

#### Reduced parental stress

Parental stress can be defined as the experience of distress or discomfort that results from the demands associated with the role of parenting (Deater-Deckard, 1998). In this study the narratives indicate the ability of SNS, as a medium for problem sharing, to reduce parental stress and anxiety. This finding is supported by early work from Dunham et al. (1998) who discovered significantly reduced levels of stress among adolescent mothers who frequented a computer-mediated support network. The timely manner in which support can be sought appeared to be particularly helpful, with Jodie stating:

*'It's quicker, faster and easier than traditional methods of either like making a phone call, or going to see people, by which point the moment (stressor) can have passed, by the time you get hold of someone'.*

Timing also valuable to Lisa:

*'If I'm having a down day, I can go have an instant sook on Facebook to (names friend), and it makes me feel heaps better, like you can get it off your chest there and then, and I feel better, generally happier'.*

And Emma:

*'I think on the days when I am struggling, like if I am having a day where (names baby) is just driving me up the wall, having that constant...you know, it's like texting someone, with Facebook, particularly, because it just comes in as an alert, and then it's just like, quick, if you need somebody to talk to they're there, just like a phone conversation I guess, just easier, and just extra support really, there's always somebody just, I guess to rant to, just somebody who understands, there'll be somebody there to help'.*

Barak and Dolev-Cohen (2006) support this finding, as when they examined the effects of using instant messaging (IM), a feature of SNS, to express negative emotions and receive support they found that particularly for distressed adolescents such use significantly improved their emotional well-being. Logsdon et al. (2014) also found that adolescent mothers are nearly as likely to use social media as a form of emotional support as direct help from family or friends.

Amy recalled a particularly stressful time in her life as a mother:

*'There was a time where I was stressed out for a bit, and I just posted 'I'm feeling quite stressed out about such and such', and I got a lot of comments back, saying things like, 'all you need to do is just calm down, have a rest, relax, take a deep breath, and that really did help, yeah, I thought, 'Wow, there is a whole new way I can ask for support'.*

Stress relief also supported by Jodie's experiences:

*'Well I'll go there (Facebook) if like (names baby) won't stop crying, and ask 'what do you think's wrong' kind of thing, could it be this, this or this, and then lots of people will tell me things, and things I don't know, what it might be. They'll also say things like go and calm down, have some breathing time, put him down for a minute, then like, come back and pick him up and try again'.*

When Jodie was asked to further describe the experience of seeking SNS support she explained:

*'Well depends what group it is, but the main one I go on (within Facebook) is 'life as a young parent' and on that like within say half an hour I will have maybe ten people responding, commenting, telling me what they think, commenting on their own experiences when their child may have done the same thing, it's like getting a heap of other peoples experiences before I like freak out! And mostly it really helps a lot, in stress kind of ways, yeah'.*

Linda however felt that SNS communication was unhelpful to her in terms of emotional support:

*'Facebook is not something that helps, if you ask me, Facebook just makes people fight among themselves, because once you have a fight with your friend, that person can just write something mean on Facebook'.*

Emma, aware both of this potential issue and how to more effectively 'manage' it, stated:

*'Yes, there's pages that go up, on places like Facebook that anybody can post in on, but anybody can also comment on, so if you're going to put yourself out there like that you're exposed to all sorts of like...bordering on abuse really, you know, but as long as you're careful who you are talking to and what you're doing it's a very supportive thing really'.*

Emma and others were mindful that in the absence of adequate privacy controls negative comments could potentially threaten emotional well-being. This awareness is supported by Sherman and Greenfield (2013) who found online message boards supportive when adolescent mothers communicated amongst themselves rather than within the adolescent community at large. Lisa and Jodie explained the monitoring of behaviour that occurs within their chosen online mothers groups by means of a group administrator, with abusive posts not tolerated in the forum. These findings are also supported by the work of Patchin and Hinduja (2010) who demonstrated adolescents' increased general awareness of the importance of internet privacy settings and safer use of SNS.

#### Enhanced self-disclosure

From the narratives it became evident that a form of enhanced, open and honest communication was attributed to these mothers' use of SNS. Self-disclosure can be defined as verbal and non-verbal communication revealing information about an individual (Greene et al., 2006), and there are recent studies suggesting intimate self-disclosure is commonplace among SNS users (Ledbetter et al., 2011; Nguyen et al., 2012), and particularly mothers (Schoenebeck, 2013), although there is debate regarding the cause and effect process of this phenomenon (Trepte and Reinecke, 2013; Misoch, 2015).

The mothers interviewed appeared to value the relative 'anonymity' provided by typed SNS communication, supported by the work of Schoenebeck (2013), Lisa for example stated:

*'It's like, what's the word? You can have more confidence, well I do, you can open up more kind of thing, when you message online I think'.*

Jodie confirmed this view saying:

*'It's easier generally, also if there's something you want to say, but you wouldn't know how to say it on the phone, you might not want to, it's like easier through a message. I reckon people are more honest online too, about their opinions and experiences and'.*

stuff, maybe? Because it's not like, face-to-face, so they ask more things and are more honest?

Lisa also referred to the particular audience in terms of disclosure too, saying:

*'For some of my (parenting) questions I prefer to ask the group (online), rather than family, because otherwise they (family) might be like OMG! ("Oh my God!")'.*

Findings from this study further support theory proposed by Valkenburg and Peter (2009) when exploring the term 'enhanced self-disclosure' related to online communication and adolescents, as they also refer to the perceived ability to share personal opinions or emotions more openly and honestly due to the nature of online communication.

These references to increased confidence and honesty in online self-disclosure suggest a positive effect exclusive to online communication and that may therefore not be present within traditional mother's group interactions. Valkenburg and Peter (2009) further suggest that this enhanced form of communication enhances the quality of personal relationships and subsequent emotional well-being, which the researcher considers worthy of future exploration.

#### Access to information

The final theme that emerged from the narratives was 'access to information'. Participants valued the timely, cost-effective access to informational support afforded them by use of SNS, used to complement information given by family and friends. This finding is supported by Morris (2014) and Madge and O'Connor (2006) in their studies involving general populations of mothers in which they found the majority of mothers search for health and parenting information online, supplementing information provided by family, friends and health carers. Logsdon et al. (2014) recently surveyed adolescent mothers about their use of Internet and social media and found that they too spend a significant amount of time using the Internet and social media to search for health information.

Reviews by Eysenbach et al. (2002) and Moorhead et al. (2013) demonstrate however that not all information available to parents on the Internet is accurate, and can be misleading, something that may also apply to information given within SNS forums.

The ability to share 'lived experiences', and to ask advice of other mothers appeared immensely valuable to this group. Four participants claimed that when seeking parenting advice or health information they will access SNS in the first instance, only one mother described using information websites via online search engines. Findings from this study suggest adolescent mothers may place higher value on information sourced from SNS than older mothers, as Madge and O'Connor (2006), Plantin and Daneback (2009) and Khoo et al. (2008) report older mothers value more traditional methods of obtaining health and parenting information such as health carers and academic websites. Logsdon et al. (2014) found that the adolescent mothers they surveyed placed higher value on obtaining information from health professionals due to its accuracy and reliability than SNS, which differs from the findings of this study.

An example of this finding is Lisa's exclamation:

*'I wouldn't know anything! (Laughs), (if Facebook disappeared), just like, the questions you ask, like who else can you ask?'*

Jodie, although aware of professional support channels, maintained:

*'Facebook is usually the first one (portal for information) ...like on the young mums sites I will always put it out there and say what's*

*happening, ask their opinions, before I go to the CHN or someone else like that'.*

From the narratives in this study it was not always clear however whether the participants chose SNS forums over professional advice because peers are their preferred support mechanism, or because traditional health care is less accessible, as Emma explains:

*'There's always somebody to give advice or ask something from, or, you know, there's always someone who knows how to help, which is... its faster than having to get up and go to see like your Health Nurse (CHN), or someone else, for something simple'.*

The findings suggest that accessibility may be a particular consideration for these mothers when choosing a support mechanism, supported by earlier findings from Keys (2008) who suggests traditional support service provision by health care professionals is often inaccessible to adolescent mothers. Bernhardt and Felter (2004) also found that parents often find academic websites hard to utilise thus prefer parenting websites and forums as sources of information.

In summary, the themes identified in this study suggest that SNS use offers valuable tangible, emotional and informational support for adolescent mothers in WA and thus may assist this group of mothers to build social capital, the product of effective and valued social relationships and networks.

#### Conclusions and significance

This exploratory study provides an interesting platform for further study into how health care practices can move forward into the 'cyber-age', possibly incorporating and harnessing the benefits of social media use into innovative strategies to improve health outcomes and reach adolescent mothers in 'their space'.

The findings gave voice to adolescent mothers through the use of narrative inquiry, resulting in the development of themes that support and expand upon previous work involving adolescent mothers' use of specific online communities (Dunham et al., 1998; Hudson et al., 1999a, 1999b; Hudson et al., 2009; Hudson et al., 2012; Sherman and Greenfield, 2013; Kauppi & Garg 2008).

The nature of the themes identified suggest that midwives could potentially contribute to adolescent mothers' social support and social capital outcomes by encouraging participation in online support groups, or consciously linking them with peers via SNS.

A limitation of the study was the frequent need to prompt dialogue in interviews, which although not ideal in-keeping with a narrative approach, is typical of adolescent research respondents.

Further research is required to explore the protocol formation necessary for health care professionals to safely and effectively promote the use of SNS and Internet-based information and support. Another recommendation would be to substantiate themes identified within this study with wider populations of adolescent mothers, and further explore the significance of these findings on outcomes related to their future health and well-being.

#### Conflict of interest

The author wishes to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

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## 5.2 Findings

All the adolescent mothers interviewed used SNS, predominantly Facebook, and most considered this valuable in terms of the support and social capital it provides. Hence, five themes were identified in this phase of the study: ‘social connectedness’, ‘reduced parental stress’, ‘improved parenting confidence’, ‘enhanced self-disclosure’ and ‘access to information’. These themes point to improved outcomes relating to social wellbeing for adolescent mothers and provide an enhanced understanding of social capital in the context of their SNS activity.

For adolescent mothers in this study, social capital, which describes resources invested into and produced by social networks, and their value for individuals, groups and societies alike (Bourdieu, 1986; Coleman, 1988; Putnam, 2000a), is shown to encompass connectedness to peer groups, friends and family. In turn, this social connectedness would seem to increase parenting confidence and reduce parental stress. These findings may be attributed to the online environment being perceived as conducive to the disclosure of feelings and to the timely acquisition of support, advice, reassurance and information.

In this study, adolescent mothers’ SNS activity often encompassed social support from all domains described by social support theorists (Gottlieb & Bergen, 2010; House et al., 1985; Mason, 2016), tangible, emotional, appraisal and informational support; benefits indicative of inherent social capital (see Table G.4). Here, too, social capital includes previously identified domains of social support (Gottlieb & Bergen, 2010; House et al., 1985; Mason, 2016) in addition to identified themes; that is, social connectedness, improved parenting confidence, reduced parental stress, enhanced self-disclosure and access to information, each extending understanding of social capital in the context of SNS use. Social capital theory (Bourdieu, 1986; Coleman, 1988; Putnam, 2000a), has thus been extended to the context of adolescent mothers’ SNS use and made more

relatable by the themes identified in this study phase. Hence, the findings of this study extend theories of social support and social capital by incorporating the importance of SNS to enhance social support and build social capital for adolescent mothers. The components of social capital identified in this study may contribute to the construction of a more universal framework from which to measure online social capital and its effect on health; thus, these too require further research and investigation.

Notably, participants did not discuss the role of midwives in this phase of the study or the potential support which may be afforded by midwives through their use of SNS. This omission prompted the researcher to explore whether midwives had a potential role in harnessing or enhancing the social capital described in adolescent mothers' use of SNS. This question formed the basis for phase two of the study.

### **5.3 Chapter Summary**

Chapter five identified the findings from phase one of the study. It was identified that adolescent mothers' SNS use provides them with valuable social support and assists them to build social capital. For adolescent mothers in this study, social capital is shown to encompass the identified themes which includes connectedness to peer groups, friends and family. This knowledge extends theories related to social support and social capital to the online world of SNS by incorporating the importance of SNS to enhance social support and build social capital for adolescent mothers. The components of social capital identified in this study may contribute to the construction of a more universal framework from which to measure online social capital and its effect on health; thus, these require further research and investigation. Findings from this phase of the study illuminate the potential capacity of SNS to enhance social capital and outcomes related to social wellbeing for adolescents during the often-complex transition to motherhood. Midwives did not feature in the mothers' narratives of support; hence the researcher was prompted

to develop the second study phase to explore the capacities of midwives to lend further support to adolescent mothers using SNS.

## **5.4 Chapter to Follow**

Chapter six presents the findings of the second phase of the study. The second phase of the study involved two components. Firstly, a focus group was convened with adolescent mothers to explore midwives' capacities to enhance social capital, or lend further support using SNS platforms. Secondly, the views of midwives were elicited in relation to their perceived capacities to enhance support for adolescent mothers by engaging in SNS use.

## Chapter Six: Findings (Phase Two)

### 6.1 Introduction

The previous chapter presented findings from phase one of the study, whereby adolescent mothers identified that SNS use provides them with valuable social support and associated social capital. Chapter six presents the findings of the second study phase, whereby adolescent mothers', and subsequently, midwives' views were explored about the capacities of midwives to harness or enhance the benefits attributed to adolescent mothers' use of SNS. Overall, the five mothers and five midwives interviewed in this phase of the study considered that midwives could lend further support and, thus, enhance adolescent mothers' existing social capital by engaging in SNS use. Midwives were more likely to consider the need for guideline development, but the underlying value potential expressed in terms of their ability to provide accessible and professionally mediated online support and information was consistent across the two groups. The findings from phase two of the study are presented using a peer-reviewed paper published in *Midwifery*, a high-ranking international journal. Findings from both study phases were also presented in an editorial published in the *Australian Nursing and Midwifery Journal* (see appendix G).

#### 6.1.1 Declaration of Co-authorship and Contribution

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Nature of Candidate's Contribution, including percentage of total

Nolan, S is responsible for 50 per cent of the total contribution, the design and implementation of the research, the analysis of the results and to writing the manuscript.

Nature of all Co-Authors' Contributions, including percentage of total

Hendricks, J (25%), Williamson, M (15%) and Ferguson, S (10%) contributed to the design and implementation of the research, to the analysis of the results and to writing the manuscript.

Has this paper been submitted for an award by another research degree candidate (Co-Author), either at CQUniversity or elsewhere? (if yes, give full details)

No.

Candidate's Declaration

I declare that the publication above meets the requirements to be included in the thesis as outlined in the Research Higher Degree Theses Policy and Procedure

18 March 2019

.....  
(Original signature of Candidate)

.....  
Date

### **6.1.2 Paper Four**

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## Social networking sites (SNS) as a tool for midwives to enhance social capital for adolescent mothers

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### ABSTRACT

**Objective:** to explore ways in which midwives can enhance the support provided by social networking sites for adolescent mothers.  
**Design:** a narrative approach was employed to guide the research design and processes. Approval was obtained from Edith Cowan University human ethics department.  
**Setting:** focus groups and interviews were undertaken with adolescent mothers and midwives in Western Australia.  
**Findings:** the four key themes identified across both groups were validation by midwives, importance of ownership, enhanced community connections and the importance of guideline development.  
**Conclusion:** findings suggest both mothers and midwives consider there are a variety of ways in which healthcare professionals could enhance the support afforded to adolescent mothers by their use of SNS. Midwives were more likely to consider the need for guideline development, but the underlying value of accessible, professionally mediated online support and information was consistent across the two groups.  
**Implications for practice:** Midwives would benefit from acknowledging the role played by SNS in providing support to adolescent mothers and by considering ways in which this technology can be used to lend further support to this group of mothers.

### Introduction and background

Adolescent mothers' engagement with healthcare services remains problematic, both during their pregnancy journey and into early motherhood (Harrison et al., 2016; Wilson-Mitchell et al., 2014). Adverse pregnancy and birth outcomes for adolescent mothers are notably reduced by the provision of antenatal care (Rao et al., 2017; Leppälähti et al., 2013). However, multifaceted social challenges often go hand-in-hand with pregnancy during adolescence (Cook and Cameron, 2015) and continue to pose additional postpartum health risks to the mother and baby dyad (Chico et al., 2014; Borkowski et al., 2007; Brown et al., 2012).

In this context 'adolescence' refers to mothers aged between 10 and 19 as defined by the World Health Organization (2014). The literature reports that psychosocial outcomes, for adolescent mothers and their children, are significantly improved by high levels of social support (Huang et al., 2014; Brown et al., 2012; Kim et al., 2014; Umaña-Taylor

et al., 2013). It is often unclear whether this support is most effective when provided by family, friends or healthcare providers. Currently and historically, education programs and home-visiting interventions have been initiated to improve outcomes for adolescent mothers despite being difficult to evaluate (Aracena et al., 2011; Owen-Jones et al., 2013; Barlow et al., 2011; Asheer et al., 2014). Brand et al. (2014) suggest that support providers develop flexible approaches that foster relational and responsive relationships between 'micro-communities' of young mothers, and that these services are judgement-free to foster spontaneous, social learning which is integral to the development of young mothers' positive motherhood identities.

Midwives are in a prime position to offer support to adolescent mothers, however, many mothers report difficulty accessing appropriate, non-judgemental maternity services (Redshaw et al., 2014; Harrison et al., 2016; Norman et al., 2016). Adolescent mothers' negative encounters with service providers may explain why they rely on information provided by their mother, the Internet and social networking

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sites (Ireson, 2015; Nolan et al., 2015). Social networking sites (SNS) describe any web-based communication platforms that enable users to create public profiles, form relationships, build networks, and facilitate socially relevant interactions between 'friends' on the site (Ellison et al., 2011; Wink, 2010).

Targeted online SNS interventions aimed at adolescents with specific conditions or diseases, (Barnfather et al., 2011; Masuda et al., 2011) and specific groups of adolescent mothers (Hudson et al., 2012) have demonstrated the benefits and value of online peer support, which may be enhanced by online peer-moderator and/or online healthcare professional contact. Hudson et al. (2012) demonstrated that online healthcare professional-adolescent mother interaction may reduce infant presentations to emergency departments.

Despite Australia's relatively high rate of births to adolescent mothers (Australian Bureau of Statistics, ABS, 2013), and the negative ramifications of adolescent parenthood (Assini-Meytin and Green, 2015; Owen-Jones et al., 2013; Ruedinger and Cox, 2012), there is a paucity of evidence related to the use of globally accessible SNS as a tool to enhance social support and social capital for adolescent mothers. Social capital is conceptualised as the resources that are invested into and produced by social relationships and networks and their value for both individuals and groups (Bourdieu, 1986; Coleman, 1997; Putnam, 2000).

Nolan et al. (2016) recently reported that adolescent mothers using SNS derive the benefits of remaining socially connected to peers and demonstrate resultant improvements in mental wellbeing. Thus, it is timely for healthcare professionals to consider social SNS as potential platforms for the provision of enhanced support to adolescents, and particularly adolescent mothers. This paper provides the findings of a research study that explores ways in which healthcare professionals, particularly midwives, may be able to further support adolescent mothers by acknowledging the significant role played by SNS and embracing SNS as a platform for healthcare innovation.

## Research aim

To explore ways in which midwives can enhance the support provided by social networking sites for adolescent mothers

## Research questions

- 1 Do adolescent mothers consider that midwives' use of SNS would provide them with additional parenting support?
- 2 Do midwives consider that they could use SNS to provide additional parenting support to adolescent mothers?

## Methodology

Narrative inquiry follows an interpretivist process whereby truth is not considered absolute, but socially constructed according to the specific meanings and values individuals place upon experiences and/or events (Lincoln and Guba, 1985; Crotty, 1998). Knowledge through an interpretive lens is constructed by individuals, within particular cultural confines and through social interactions (Popkewitz, 1984). Researchers use this method primarily to uncover the meanings behind peoples' actions and experiences (Haynes and Rhodes, 2011; Hynes et al., 2012). The intent of interpretive research is to better understand a phenomenon by interpreting lived experiences. Narrative research enables the researcher to be reflexive, to use their voice and prior experience within the data collection process (Clandinin and Connelly, 2000; Lambert et al., 2010). The use of narrative inquiry and the iterative nature of data collection and analysis associated with this method (Daiute, 2013) enabled the researcher to reflect upon initial findings, recognise emergent issues and directions and intuitively develop this study.

## Ethical considerations

Edith Cowan University Human Ethics Committee provided approval for this study, with specific clearance to obtain data from 'minors' (participants aged under 18 years). Participants were asked to confirm that they had 'parental responsibility' for their child or children within the inclusion criteria. 'Parental responsibility' means that the mother assumes all the duties and responsibilities that parents have for their children by law (Australian Government, 1975) and there were no court orders in place giving another individual legal responsibility for the child or children. This criterion served to ensure that any mother (participant) aged 17 or under had been assessed by their professional maternity care providers as a 'mature minor', considered able to responsibly parent their child, and, therefore, able to provide informed consent to participate in research studies (Hunter and Piersciotek, 2007; Ward-Smith, 2008), and also that all participants considered they had assumed a 'parenting' role to ensure relevance within the study findings. Informed consent, from both adolescent mothers and midwives was obtained using signed consent forms.

Through the ethics committee, issues of confidentiality, anonymity, protection of participant's rights and emotional vulnerabilities, ownership of data, protection and long-term storage of data were also addressed (Miller et al., 2012). Contact numbers for external support agencies that address emotional and psychological health were included in written study information provided to participants in case they were experiencing emotional issues or struggling to cope with motherhood. Pseudonyms were used to report all data findings and are used throughout this paper.

## Participants

Participants were derived from two purposefully selected groups:

### Adolescent mothers

The mothers were aged between 15 and 19 years, and each had one child. Their children ranged from 10 weeks to 17 months of age.

*Inclusion criteria:* mothers aged 19 or under who lived in Western Australia (WA), spoke and understood English, used SNS, and had given birth to a live child or children for whom they had parental responsibility for, and resided with.

### Midwives

The midwives all had experience working with adolescent mothers.

*Inclusion criteria:* midwives registered with the Australian Health Practitioner Regulation Agency (AHPRA) who worked and resided in WA.

Seven mothers and seven midwives consented to participate in the study.

## Data collection

### Recruitment

Adolescent mothers were recruited by the use of 'snowballing', whereby participants recruited to participate in an earlier study phase were asked to identify other potential participants who may be willing to participate in a focus group (Creswell, 2013). Those identified gave permission to be contacted by the researcher/primary author and were provided with detailed verbal and written study information including information about the researcher. A midwife, known to the researcher, who volunteered participation was asked to identify other midwives who may be willing to participate in a focus group.

**Table 1**  
Phase one themes – (Nolan et al., 2015).

Themes identified in Phase 1	Supportive domains
Social connectedness	Tangible support – enhanced social connections with existing and newly formed peer groups
Increased parenting confidence	Emotional support – feelings of increased confidence in parenting role and in helping others
Reduced parental stress	Structural support – timely access to advice and resources
Enhanced self disclosure	Emotional support – enhanced ability to share intimate feelings and emotions
Access to information	Informational support – peer driven, often first/only port of call for information

### Focus groups

Focus groups were organised, one for mothers, and another for midwives. A participant from each group volunteered their own home as the chosen location. The number of participants recruited for each focus group, seven, was considered an adequate number of participants for focus group participation (Pusch and Ness, 2015) as it reflects the ability of focus groups to gather ideas and opinions from small groups of people who share common characteristics and to provide rich, detailed data to further understanding of the topic of interest (Krueger and Casey, 2015; Carey and Asbury, 2012). Focus group discussions are intended to be relaxed, permissive and non-threatening and offer a more natural environment for dialogue than individual interviews. This is because individuals are influencing and being influenced by others, just as they are in daily life (Krueger and Casey, 2015). Moreover, in seminal writings, Jonsdottir (1964) proffered that people were more likely to disclose information when surrounded by others with whom they feel a resemblance or connection.

#### Focus group – adolescent mothers

The convening of the focus group for adolescent mothers proved problematic. Due to unforeseen cancellations, transport problems, sickness and family circumstances only two mothers attended the focus group. Despite the researcher's attempts to reschedule a second focus group with absentees, this proved unsuccessful. Mills et al. (2013) faced similar challenges when attempting to maintain engagement with adolescent mothers for qualitative research purposes. The importance of gleanings adolescent mother's views on the role of midwives using SNS as a means of supporting adolescent mothers was given careful deliberation by the research team to maintain the rigour of the research. It was determined that the iterative process of narrative inquiry (Daly, 2013) allowed for a change in the way information was gathered. The researcher consequently interviewed three of the absentees individually within their own homes, their location of choice. The same open-ended questions used in the focus group were used with individual mothers. The researcher perceived no difference in the comparative ease with which participants disclosed information using group or individual interviews. All interviews were digitally recorded and lasted approximately 60 minutes each.

#### Focus group – midwives

Seven midwives consented to participate in a focus group; however, the final group comprised of five participants. Participants were initially asked to describe their experiences of SNS use in their personal and professional lives to encourage quality dialogue and build rapport. Themes from phase one of the study (Nolan et al., 2015) formed the basis of focus group discussion (Table 1).

Using the themes as the basis for discussion encouraged participants to consider ways in which midwives may harness, or enhance, each theme and/or provide additional parenting support to these mothers by embracing the use of SNS into midwifery practice. Fig. 1 provides clarity around the research process.

### Data analysis

Focus group and individual interviews with adolescent mothers and midwives were transcribed verbatim by the researcher and summarised into key themes. Initially the researcher expected data from the two groups, mothers and midwives, to require separate thematic analysis and reporting styles. However, the use of the constant comparison method (Creswell, 2013), whereby findings and literature are synchronously explored throughout the research process, revealed that mothers and midwives' views were similar, and this simultaneous collection and analysis of data facilitated the identification of unified themes (see Fig. 1). This method was systematic and repetitive, the researcher revisited recordings and transcripts multiple times to ensure that the meaning and understanding gained was an accurate representation of the information contained in the narratives. Saldaña (2016) contends there are multiple cycles of the coding process. The first cycle identified patterns and similarities in the transcripts. These patterns and similarities were then assigned codes in the second cycle. In the final cycle, codes were refined, relabelled and key themes were identified. Manual coding was undertaken with colour highlighting of transcripts and rearranging of sections of narrative to identify emergent themes.

#### Trustworthiness of the data

Trustworthiness of the data is demonstrated by addressing transferability, dependability, and credibility (Graneheim and Lundman, 2004; Creswell, 2013). To ensure transferability, this paper provides information about the study's setting, contextual information about participants and details of how they were identified. To support dependability, a detailed description of the study's methodology is provided and the data analysis process was reviewed by two qualitative researchers. To increase credibility, academic supervisors validated the interpretation of transcripts by reading descriptions and discussing the emergent themes with the researcher until a consensual interpretation was agreed upon.

The researcher frequently sought clarity in understanding what participants were saying at natural speech intervals, verifying what she thought had been implied to validate the interpretation of the narratives, an approach advocated by Silverman (2014) and seemingly appreciated by participants. Moreover, Polkinghorne (2007) proposes giving participants the opportunity to check whether the researchers' document captures the essential meaning behind their experiences. Participants were therefore offered the opportunity to view their transcripts, or to validate the authenticity of the researcher's final interpretation of their narrative by reading a summary of the research findings, although none elected to do so.

### Findings

Four key themes were identified from the data; *validation by midwives*; *the importance of ownership*; *enhanced community connections*; and *the importance of guideline development*.

#### Validation by midwives

The first theme was termed 'validation by midwives', because it describes midwives, 'establishing the soundness or legitimacy of some-

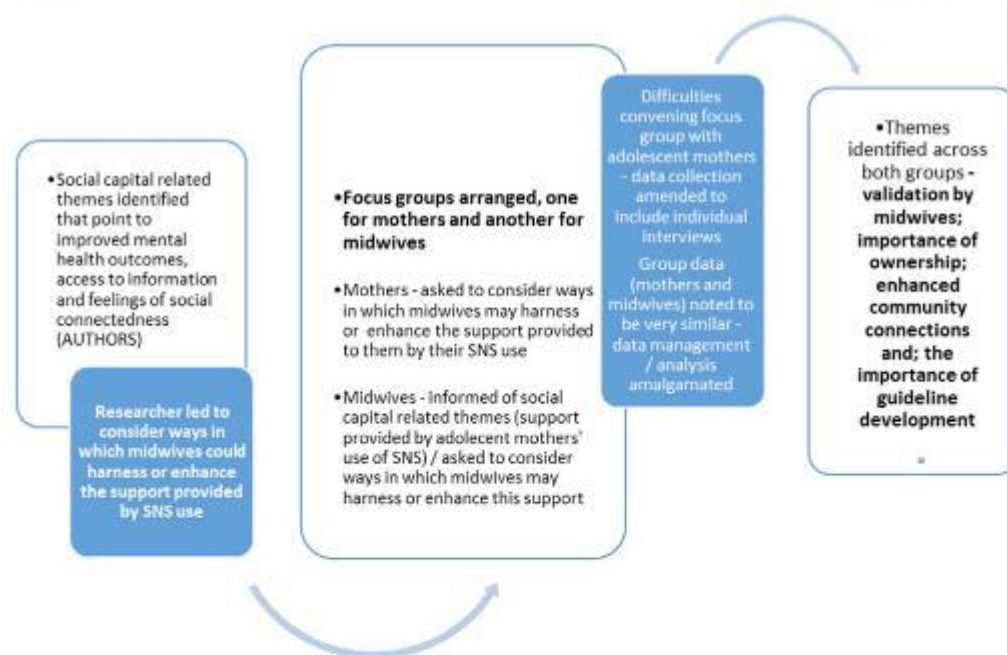


Fig. 1. Diagram of research study process.

thing'. This theme encompassed the three sub-themes of; validation and promotion of the potential benefits of SNS use; validation of health information obtained via SNS, and; validation of SNS group membership.

#### Validation and promotion of the benefits of adolescent mothers' use of SNS

Mothers and midwives considered that it was important for health-care professionals to respond positively, and to validate the potential benefits of adolescent mothers' SNS use. Particularly as Nolan et al. (2016) identified that SNS use may contribute to improved mental health and social connectedness in adolescent mothers. Both groups considered midwives were in a prime position to inform pregnant and parenting adolescents of the social capital gains that may be attributed to SNS use and to promote SNS as a useful medium through which to harness support (verbatim evidence).

Midwives in the study all used SNS regularly (mostly Facebook) to remain connected with friends and family and four of the five had joined Facebook groups specific to personal hobbies or interests. They were not therefore surprised by initial study findings that indicated adolescent mothers' social capital could be significantly enhanced by SNS use. Pat (midwife) stated;

*"For teenagers, it'd be really good, they tend not to attend antenatal classes, so an online group'd be great for them, also so they can make friends, meet people"*

Acknowledging practical implications Mary (midwife) interjected;

*"I can imagine that it could be the only practical way that you could actually communicate with them (adolescent mothers) these days"*

Kayleigh (mother) suggested that midwives could promote the use of SNS to other adolescent mothers as a possible means of reducing feelings of loneliness (verbatim evidence). Justine (mother) articulated she would 'feel lost' without SNS group contact and was asked what she thought of midwives promoting such use. She replied;

*"That would be so good, because some people might not like know someone else to start with, to know what groups to join, (midwives) could really help others by doing that"*

Charli (midwife) also emphasised the importance of validation by midwives, stating;

*"Maybe because a professional has recommended that they interact in that way, to overcome possible feelings of isolation or stress they may see it as like more helpful, especially if most older people tell them SNS use is a waste of time"*

In terms of timing, it was proposed that midwives could promote SNS use when adolescent mothers leave hospital following childbirth, either in a general sense or by advertising links to existing peer groups. Sarah (midwife) suggested;

*"We could use the Child Health Record book, to use a sticker placed on a page of the book"*

The midwives conceded that simply promoting the potential benefits of SNS use, and; existing SNS groups for adolescent mothers would be unlikely to contravene guidelines for social media use formulated by professional regulatory bodies and associations (Australian College

of Midwives, 2014; Australian Health Practitioner Regulation Agency, 2014).

Charli (midwife) pointed out;

*"Midwives could surely facilitate the connection of groups of young mums, if they (mothers) were invited to join and then joined themselves, then you wouldn't really tread on anyone's toes, or need permissions, or policies as such, would you?"*

Implications relating to social media and professional conduct will be explored later in the paper.

#### Validation of health information obtained via SNS

Initial findings suggested adolescent mothers seek advice and information, including health information via SNS (Nolan et al., 2015). The midwives expressed concern that peer supported advice and information shared via SNS may not be evidence based or accurate posing a risk to both maternal and infant health. Charli (midwife) whilst accepting of the informational support provided by SNS stated;

*"Some of the information might not be right, if you're going to go on a group like that you might ask 'what formula should I give my baby?' and then you're going to get like 27 replies with different advice. One mother might suggest going straight to soy formula or something random like that which a midwife wouldn't necessarily recommend"*

Exploring ways in which healthcare professionals could enhance or lend further informational support to adolescent mothers via SNS generated mixed opinions. Two of the five mothers in this study phase stated that they preferred to receive advice and information from peers as it was based on 'real experiences' of other mothers, although one considered that having the option to verify information with a midwife via SNS would be beneficial. The other three mothers stated that whilst they currently seek peer advice and information via SNS, they would prefer to know that the information they were receiving via SNS was given by a professional.

Kayleigh (mother) stated;

*"If I just ask other mums their opinions like their opinion is no more valuable than mine, but if you can flick a question to a nurse or midwife then it's as accurate as it can be"*

Sara (mother) who supported this view, added;

*"Other mums only know about their own baby, what they have done, whereas a midwife or a child health nurse knows about hundreds of babies, and what should happen, the right way to do stuff, not just what one person thinks, it'd be good to be able to ask them stuff on Facebook! If they (midwives) opened a Facebook page, they could tell you stuff early on about what it's like to become a young parent, what to expect, and give accessible advice and support to young parents!"*

Kayleigh (mother) also suggested;

*"It'd be really good if on the page or app or whatever it was there was maybe like a page with questions and answers that others have asked (a midwife) about and you can read down them and see if anyone else has already asked that and had their question answered? Then there could also be some specific topic stuff on there too, like settling babies?"*

Charli (midwife) felt professional communication via SNS could certainly serve to verify and/or validate information;

*"SNS wouldn't necessarily replace that (face-to-face midwifery care), but might help disseminate information, like they say in a web chat that they've been told such and such, or if something was bothering them, and it can help them just to hop on there and get it sorted, like live chatter, and then they'd be confident that they had the correct information when sharing with their peers?"*

#### Validation of SNS group memberships

Four of the mothers belonged to SNS groups created specifically for mothers and valued feeling connected to their new peer group. Kayleigh

(mother), whilst she belonged to such groups stated she did not find them particularly helpful. She said she would be more interested if midwives created locality based SNS groups for adolescent mothers;

*"Because then you'd know that it was safer and legit, and that it might be worthwhile because you might be able to meet up, if the hospital or the midwives were kind of monitoring it it'd be better and safer I think, and if it was only accessible to mums who were given the link then it'd be heaps better than just any person being able to join a random group"*

Two mothers stated that while they currently did not participate in any specific 'mothers' groups via SNS, they would be more likely to join a group knowing it had been initiated by a midwife or recognised organisation. Confirming that access restrictions and professionally validated memberships would increase her interest in joining online groups, Sara (mother) proffered;

*"It'd be good to know if they were other young mums that the midwife knew because anyone can lie on these public groups that are set up and not be legit"*

The next theme relates to the relative 'ownership' of any enhanced support offered via SNS.

#### Importance of ownership

The second theme, 'the importance of ownership' was highlighted in several ways by both mothers and midwives when considering the potential for SNS innovations within healthcare. Justine (mother) stated;

*"Well, there'd have to be like lots of other mums on there (SNS innovation) .... and there'd have to be like playgroups and fun activities and stuff like that, things to go to maybe, but not just like midwife stuff, like the leaflets at the hospital!"*

When suggesting adolescent mothers could potentially be involved in the creation of an online intervention, Justine's response was clear;

*"Well, then it'd be more like what we might want to look at, and be involved in?"*

Kayleigh (mother) advised;

*"Not just reams of information (via SNS), more like a snappy answer page, or links, or pictures, videos of stuff maybe, not just the same stuff as on boring websites really, more interesting and youth friendly"*

Sara (mother) proposed youth-friendly material, stating;

*"You could also attach video links, or short clips to give people information, like 'YouTube'"*

Both mothers and midwives were creative, suggesting an intervention could be created within an SNS, 'App' or 'parent portal', like the closed system 'Intranets' seen in many organisational systems. When considering the peer-group component of any intervention, Charli (midwife) considered;

*"I think it'd have to be something that they owned and accessed themselves, private groups just for them, so they'd feel more secure and confident in there, where they're just among peers, where they can discuss what they think are the sensitive issues, and not within the population at large where anyone else can see and comment"*

Charli (midwife) went on to suggest 'peer moderators' could be recruited and trained to moderate online groups to maintain a sense of peer-ownership. A significant concern conveyed by the midwives, also relating to ownership, was the associated endorsement of peer-led information, or product advertising within a professionally created SNS. Mary (midwife) suggested;

*"You could say that while we (midwives) have either promoted or maybe even initiated the SNS page we don't endorse any particular products, or the unmoderated peer advice given?"*

Legal and ethical implications are discussed later in the paper in terms of guideline development. The next theme identified by participants relates to enhancing 'connectedness' within their local communities.

#### Enhanced community connections

Participants frequently spoke of ways in which SNS could be used as a tool to enhance adolescent mothers' community-based knowledge and connections. Sara, (mother) shared her thoughts;

*"Well maybe for appointments, like clinics, or information about local playgroups and then instant messages maybe? Stuff going on for mums locally"*

Ally (mother) agreed;

*"Yes, that'd be so good, like it's not something you are aware of at all, like what's out there, what's happening and stuff, and you'd potentially meet a real lot of other mums locally"*

Both groups suggested 'event' links could offer support in terms of promoting attendance at local programs and initiatives;

*"Like you do for parties (create an 'event' link on Facebook) because if you know someone you know is going to go you feel like you'll go along, you won't be the youngest one there, it helps". (Sara mother)*

Charli (midwife) agreed;

*"They might be tempted to do other things from there (the SNS group) too, like attend like an aqua-natal class or something if they see someone else is going", adding, "They might even encourage each other to do courses or something to do with education or work too!"*

Pat (midwife) also suggested offering direct links to local youth centres and schools within an intervention, demonstrating awareness of the need to address the wider determinants of health in relation to education, employment and community participation.

The fourth theme relates to issues surrounding professional conduct, and the legal and safety considerations associated with the use of social media in professional practice.

#### Importance of guideline development

Midwives tended to focus on the regulatory implications of professional social media use and the resultant guideline formation that may be necessary to enable midwives to lend further support to mothers via SNS. Pat (midwife) stated;

*"The thing is though that you've got to be so careful as a healthcare professional with SNS use, like Facebook, about what gets out there, and what gets said"*

The midwives had all received health department education relating to the ethical implications of social media use in clinical practice, and repercussions were cause for concern. Charli (midwife) stated;

*"I get it completely, but talking about medical things in this environment (SNS), it's just the legal side of it all, that's what I think it's always going to come back to sadly with Facebook? My biggest fear would be that something would go wrong, and it'd all blow-up, purely because of the link to Facebook or social media and the headline it would create?"*

Sara was the only mother who mentioned cyber-safety issues, suggesting that any online intervention would need to be a secured site that was considered 'safe' for young people to access (verbatim evidence).

Midwives also expressed some concern relating to the 'enhanced self-disclosure' afforded to adolescent mothers via SNS. Whilst they considered the ability to more openly share feelings to be a potentially positive benefit of SNS use, when considering professionally-mediated involvement Charli (midwife) relayed concerns relating to 'duty of care', stating;

*"Someone might say in an online forum that they're going to go and jump off a bridge that night, and you won't know if that is actually true or not, but you have a professional responsibility, a duty to act?"*

Charli (midwife) extended this concern to the often-temporary nature of adolescent crises, and whether the immediacy provided by SNS contact might facilitate impulsive problem-sharing that may otherwise be alleviated by time traditional methods of seeking help and advice, stating;

*"Just because they disclose more, they might just be sounding out; you can't necessarily distinguish what is 'real' and what is momentary, or for effect? They, (teenagers) sometimes come out with dramatic things just to shock or get attention from someone, and I could see it getting complicated, you've just got to get it right?"*

Midwives suggested close partnerships with health departments and government agencies as a potential way to 'get it right', with Pat (midwife) proposing;

*"Sit down with someone within the health service and ask them to help set up a site, or an App, or whatever and help with guidelines, ask them what's acceptable, and what's not, then let it go from there, if this is the way they communicate, it needs looking at, somehow!"*

Charli (midwife) highlighted practical opportunities;

*"With a website or SNS that they can go on, and you can access, you can potentially educate so many more clients at any one time"*

Concerns relating to the professional endorsement of information given via SNS generated 'disclaimer' suggestions;

*"Maybe you could have disclaimers that only some of the (SNS) content can be moderated so you're (as midwives) not ultimately responsible?" (Charli – midwife)*

Midwives proffered that any intervention would have to clearly outline emergency contact numbers and provide concise disclosure-statements relating to its limitations, otherwise;

*"You would have to have someone manning it (SNS) like all the time because someone could send like a message saying, "ah my baby's blue!", or "I'm suicidal" and then you've got no one responding to the message!" (Clara-midwife)*

Supporting these considerations, Kayleigh (mother) reaffirmed that SNS contact with a midwife would not negate the need for emergency contact sources, but rather enable timely communication with mainstream services, stating;

*"It'd be so great to be able to contact like a known midwife, like someone you liked and trusted, and the page could also include all the relevant emergency or local helplines that you might need in different situations"*

Midwives suggested starting slowly, developing collaborative relationships and initiating a 'pilot' intervention as a starting point? It was suggested that 'teething problems' would become evident during implementation stages and that problem solving would be an ongoing collaborative effort between those providing the intervention and those responsible for monitoring social media and its ethical place in healthcare practices. The ultimate reason, however, that Kayleigh (mother) considers midwives need to embrace social media is that;

*"Everyone has Facebook access, but not everyone has a phone with credit, so it's a good way forward so everyone can contact the right people when they really want to!"*

## Discussion

Social capital-related benefits for adolescent mothers' particularly in terms of social connectedness and access to information were identified by mothers and midwives. Both groups considered midwives' promotion of the possible benefits of SNS use, identified by the researcher (Nolan et al., 2015), would be an integral start to providing additional support and validation. Moreover, they proposed that if midwives were to use SNS to support adolescent mothers it would enhance the accuracy of health information available to mothers and the connections made within local communities would facilitate social inclusion. This proposal is supported by Hudson et al. (2012) who found that the acquisition of online information from nurses improved healthcare utilisation by adolescent mothers. This research may have been enhanced further by considering the cultural context of the adolescent mothers.

Most mothers in this study supported the idea of being able to contact professionals via SNS, although two were unsure if midwife-led support via SNS would add value to their current experiences of SNS use due to the nature of existing peer support. Those who favoured midwives support wanted an avenue to verify advice and information received from their peers with professionals. It was suggested that closed-access groups with a midwife would also 'legitimate membership'. Interventions initiated by Hudson and associates support these theories (Hudson et al., 2012, 2009, 1999).

Ownership and primary participation by adolescent mothers in creating an online platform was also identified as crucial to the successful provision of professionally-mediated online support. Studies by Mallin and Morrow (2009), Soriano et al. (2008) and Taylor et al. (2012) attest to the necessity for adolescent parents to control their educational needs and for information-sharing to be conducted in a relaxed and unstructured way. Midwives considered that some components of an online platform may need to remain exclusive to adolescent mothers, which is supported by Sherman and Greenfield (2013) in terms of optimal peer support. Midwives suggested use of peer moderators, or mentors, to enhance feelings of ownership within a youth-focused intervention has proved a successful strategy in both national and international mentoring programs led by adolescent mothers in both Australia and the United Kingdom (Lullaby Trust; Kovatseff and Power, 2005). Peer moderators within such programs achieve tertiary qualifications following structured program training, potentially enhancing their future employment options and subsequent social inclusion. In a review of peer-mentoring programs, DuBois et al. (2011) attest that despite the complexities faced in measuring program efficacy, there is considered value in investing in peer mentoring within the policy arena. This strategy, therefore, requires consideration when attempting to provide further support and social capital to adolescent mothers via SNS.

Both groups were creative in suggesting SNS, Apps or online 'portals' as platforms to deliver support interventions. Participants were keen for online platforms to provide enhanced links and connections to local services, community programs or events being held for young mothers, to facilitate inclusion at the local community level. Face-to-face parenting programs often collaborate with child care centres, sexual health clinics, mental health services, education providers, cultural centres and organisations, government sectors (e.g., housing, family services), book and toy libraries (Soriano et al., 2008), with this type of multi-faceted approach widely advocated in recent directives that focus upon addressing the social determinants of health (Department of Health UK, 2010; Department of Health and Human Services US, 2010; Moore et al., 2014).

The Australian Young Pregnant and Parenting Network (AYPPN) was established in Australia to connect those working to improve outcomes for young parents and to advocate for improved policy and program support (Clayden, 2010). SNS provide limitless opportunities to create simi-

lar multi-agency online networks for adolescent mothers themselves and thus have the potential to improve levels of health, education, training, community participation and social inclusion. Midwives are in a key position to address these fundamentals of public health, although, in this study, they were inclined to focus heavily on the potential to breach professional codes of conduct when using SNS as a tool to lend support. Whilst they were keen to overcome potential obstacles, their identified fears and controversies in terms of social media use and appropriate professional conduct are well recognised and documented within current healthcare literature (Lambert et al., 2012; MacMillan, 2012; Pirraglia and Kravitz, 2013).

In the current era, whereby midwives worldwide are being called upon to deliver a primary healthcare focus, and healthcare policy is driven to consider the social determinants of health (Department of Health UK, 2010; Dawson et al., 2015; Department of Health and Human Services US, 2010), social media as a platform requires consideration when planning and implementing appropriate, accessible and sustainable healthcare services (Munson, 2011; Noval et al., 2011; Horvath and Eklund, 2015; Balatsoukas et al., 2015; Moorhead et al., 2013; Ali, 2015; Poetri et al., 2017). There is a push for healthcare services to consider social media as a particularly appropriate means to provide youth-focused initiatives (Ralph et al., 2011; Levine et al., 2011; Whiteley and Brown, 2010; Gowen et al., 2012) and adolescent mothers in this study are keen to see midwives lending support in online spaces. Further research is required to explore professional boundaries and appropriate integration of social media into clinical practice.

## Conclusions/implications for practice

As primary maternity care providers, midwives need to consider SNS a suitable tool to lend further support to, and enhance social capital for adolescent mothers. This study suggests SNS engagement by midwives may serve to validate the potential benefits of such use by adolescent mothers, improve the accuracy of information available via SNS and enhance adolescent mothers' feelings of community 'connectedness'. Support via SNS may eventuate as a component of an online 'App', 'Intranet' or 'portal' created for adolescent mothers, and offer the potential for midwives to integrate links to health, education, employment and community services, as well as to promote and facilitate valuable peer support networks. The use of holistic, youth-focused approaches to integrated SNS use may not only improve adolescent mothers' postpartum health and psychosocial wellbeing but encourage favourable outcomes in terms of future education, employment, community participation and social inclusion.

In the interim, whilst governing bodies navigate midwives' use of social media, midwives need to consider 'bridging the gap' for the current generation of internet users. Promoting the benefits that may be attributed to adolescent mothers engaging in SNS and facilitating access to established, well moderated SNS groups may validate and enhance existing supports. In addition, midwives collating and sharing a carefully considered list of approved, evidence-informed parenting apps and websites with adolescent mothers might prove beneficial until midwives can facilitate professionally-mediated SNS support platforms.

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## Supplementary materials

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## 6.2 Findings

Four key themes were identified within this phase of the study: ‘validation by midwives’, the ‘importance of ownership’, ‘enhanced community connections’ and the ‘importance of guideline development’. The first theme was termed ‘validation by midwives’, because it describes midwives establishing the soundness or legitimacy of something. This theme encompassed three sub-themes; validation and promotion of the potential benefits of SNS use; validation of health information obtained via SNS, and; validation of SNS group memberships. In relation to the first theme, all participants (adolescent mothers and midwives) of this study phase considered midwives could provide additional support by engaging in dialogue with adolescent mothers regarding SNS use. It was considered this dialogue would demonstrate that midwives understood the role often played by SNS in providing support and information to adolescent mothers and potentiate opportunities for midwives to lead mothers to reputable sources of information. It was also proffered that midwife-initiated online groups would ensure membership was restricted to those known to have recently become mothers. Ultimately, midwife engagement in SNS was considered necessary to ensure accurate, supportive information is shared from within trusted online forums.

The second theme had two components. Firstly, both mothers and midwives considered adolescent mothers themselves should likely be involved in the creation of any SNS platforms used to link mothers and midwives. They suggested that this would ensure informational content was presented in an acceptable, adolescent-friendly style and that the platform used met the unique needs of this group of mothers. Secondly, midwives, whilst keen to engage with the positive opportunities posed by SNS engagement, reported fear that using SNS to provide care may draw them into situations that breach professional codes and boundaries outlined by peak professional bodies

(NMBA, 2014; AHPRA, 2017) and wider health authorities. Simply, midwives were scared that any advice and support provided online using privately-owned platforms such as Facebook would remain in the public domain with the potential to be misused or misinterpreted. Interestingly, only one mother expressed this concern, aware that any professional SNS engagement would need to be conducted in an environment considered 'safe' for both adolescent mothers and midwives. In turn, these concerns led to the development of the fourth theme that highlighted the expressed need for the development of supportive guidelines for midwives to feel confident facilitating online care. In relation to the third theme, adolescent mothers and midwives considered midwives' engagement in SNS platforms would likely improve timely access to professional advice and support. This consideration applied not only to improved access to continuity of midwifery care, but to ongoing liaison and engagement with other community-based services such as family and child health, sexual and mental health services and education providers. They also highlighted the potential, using SNS, for the provision of valuable links to local community resources, support-groups and recreational activities.

Finally, this study phase further extended the understanding of social capital and 'connectedness' related to SNS use in terms of connectedness to community, both local and online. It was considered by both adolescent mothers and midwives that not only could midwives enhance the online-community experience, but that they could enhance mothers' connections to their local communities by engaging in SNS platforms. These additionally identified components of social capital may contribute to the construction of a more universal framework from which to measure online social capital and its effect on health; thus, they require further research and investigation.

### **6.3 Chapter Summary**

Findings from this study phase suggest both adolescent mothers and midwives consider that midwives could enhance the support afforded to adolescent mothers by engaging in SNS use. Although midwives focused on the need for policy and guideline development to guide and support online care provision, both groups highlighted the potential for midwives' engagement in SNS to lend further support and enhance social capital for adolescent mothers. Innovative ways to provide support to this group of mothers were explored, with barriers and enablers identified. Understanding the construct of social capital and its relevance to adolescent mothers' SNS habits was extended to include connectedness to community (both local and online), with further research necessary to substantiate the findings.

### **6.4 Chapter to Follow**

Chapter seven, the concluding chapter, revisits the aims of the research, presents and critically analyses the findings of this study and explicates their value to midwifery practice, policy, research and education by making recommendations across these areas. Limitations of the research are also discussed in the following chapter.

## **Chapter Seven: Discussion and Conclusion**

### **7.1 Introduction**

The preceding chapters presented findings from each phase of this study. Hence, this study proffers new understandings of the ways in which adolescent mothers use and value SNS, particularly in terms of enhancing support and building social capital. Understanding social capital in this context has been extended by the themes identified in this study, which presents new knowledge related to midwives' capacities to promote and further enhance the benefits derived from these online support mechanisms. Indeed, this knowledge has the potential to transform midwifery care practices for adolescent mothers during the postnatal period and beyond. It is hoped the information gleaned from this study will encourage and inspire midwives to develop innovative ways to construct support and engage with parenting adolescents to improve health and social capital related outcomes.

Chapter seven provides an overview of the study, revisits the aims of the research, places the key findings back into the literature and identifies relevant limitations. The overall findings are discussed within the context of current midwifery practice and in terms of future practice implications. The value of the study findings to the midwifery profession are discussed in a paper, paper five, that is currently under review following submission to *Women and Birth* journal. Ideas presented in this paper arose from the conclusions of the study, it synthesises findings from both study phases and is presented in section 7.4.2 of this chapter (p129). The paper points towards online approaches to midwifery-led care using a newly extrapolated understanding of social capital in the context of SNS use. Finally, this chapter concludes by making recommendations for future midwifery practice, management, policy, education and research.

## **7.2 Aims and Intent of the Research**

This study had three key research aims. Firstly, to generate new knowledge in relation to the values inherent in adolescent mothers' use of SNS and how such use may influence their experiences as new mothers. Findings and resultant themes from phase one successfully highlight the value inherent in adolescent mothers' use of SNS and the influence such sites have on their parenting experiences. Secondly, this research aimed to extend the understanding of SNS as a tool to build social capital for adolescent mothers. Findings and themes from phase two suggest that SNS could be used as a valuable tool by midwives to enhance social capital for adolescent mothers. Mothers' highlighted the potential role midwives could play by engaging in supportive dialogue about use of digital technologies, validating information and peer group memberships and enhancing community engagement in both an on and off-line capacity by engaging in SNS use. Thirdly, this research aimed to theorise innovative ways to provide midwifery support to adolescent mothers. Recommendations are provided based on the study findings to inform all areas of midwifery regarding ways to provide support to adolescent mothers by embracing online platforms.

## **7.3 Findings**

Twelve adolescent mothers and five midwives shared their experiences and thoughts to illuminate the capacity of SNS, and subsequently midwives' engagement with SNS, to provide support and build social capital for adolescent mothers. An overview of findings is discussed in relation to each phase of the study.

### **7.3.1 Phase One**

In the first phase, adolescent mothers were found to gain a sense of personal and social wellbeing by using SNS. The seven mothers' stories illuminated the often-daily sense of social connection and enhanced ability to disclose their feelings, which SNS

provides them. Mothers in this study reported feeling less isolated and more confident in themselves and their parenting abilities. Moreover, they reported feeling less stressed when faced with uncertainty or doubt relating to parenting challenges and reassured by the timely ease of access to peer-led advice and information afforded to them by SNS.

This study found online peer-support provision was described from within certain narratives (or stories) as ‘a lifeline’, and by the majority as valuable. The understanding of social capital in this context was extended to include connectedness to friends, family and peer groups that, in turn, increase parenting confidence and reduce parental stress. This connectedness was often associated with an environment conducive to enhancing the disclosure of feelings and the timely acquisition of advice, reassurance and information. Ultimately, the findings of this study phase demonstrate that adolescent mothers’ use of SNS has the potential to build valuable social capital. In addition, these findings highlight the need for midwives to be made aware of the potential benefits associated with adolescent mothers’ SNS habits.

### **7.3.2 Phase Two**

Phase two extended the findings from phase one by convening a focus group with adolescent mothers. The intent was to expand upon findings from phase one. It was noted by the researcher that midwives were not mentioned in the mothers’ narratives of online support in phase one. Hence, subsequent exploration focused on mothers’ perceptions of midwives’ capacities to enhance current online support or lend additional parenting support by engaging in SNS use. When it became evident that mothers perceived midwives as having the capacity to enhance their existing online supports, or to lend additional support by engaging in SNS use, midwives’ views were sought in relation to the same. What was most striking about the overall findings was how the mothers considered midwives’ direct engagement in SNS could provide them with additional

supportive benefits. Midwife participants also considered they could lend valuable parenting support to adolescent mothers by integrating SNS use into clinical practice. In the first instance, each group considered that midwives could enhance both existing supports and the social capital SNS use provided by initiating supportive dialogue about digital platforms with adolescent mothers. Thus, it was considered that such dialogue may extend to promoting or validating the potential benefits of SNS use to all pregnant and parenting adolescents.

Interestingly, while this study identified no reported incidents of cyberbullying or ill effects from participants SNS activity, four mothers across the two study phases articulated awareness of the negative potential if privacy controls and settings were not effectively implemented or managed or if online friends were to share personal information without permission. Mothers from both study phases valued being able to ‘meet’ and regularly communicate with other mothers using Facebook, largely due to the shared understanding they perceived as intrinsic to both motherhood and, at times, to adolescent motherhood. This finding is considered pertinent, as many of the young mothers interviewed in this study described feeling negatively judged within society at large, but not within their online networks. Some mothers belonged to ‘closed-access’ mothers’ SNS groups and were appreciative of the role of group moderators in maintaining online safety. Indeed, this finding is also pertinent when considering midwives’ promotion of online support mechanisms to other pregnant and parenting adolescents, which highlights the need for midwives, or other healthcare professionals, to promote adequate privacy controls when engaging in dialogue about adolescent mothers’ SNS use.

Significantly, this study found many mothers felt midwives’ online presence would serve to validate not only the ‘legitimacy’ and safety of group membership and

interaction, but also the accuracy of online peer-shared information. While some mothers felt a sense of increased confidence in being able to provide help and support to others requesting advice or reassurances, most were acutely aware of the potential for misinformation to occur, or to be perpetuated in peer-led online forums. Midwives were similarly concerned about the potential for online misinformation. Hence, this study finding highlights the need for midwives to become conversant with online applications (apps) and websites that promote evidence-based information to guide parents to appropriate online sources. Fundamentally, these findings should also urge midwives to look at ways to digitally disseminate evidence-based information to adolescent mothers as part of their role in primary health care.

Despite being expressly keen to explore more accessible and effective ways to support young parents, midwife participants were acutely aware of the controversial boundaries communicated within professional legislation, which mandates ethical and legal uses of social media (AHPRA, 2017; NMBA, 2014). They expressed concern that while SNS engagement may facilitate evidence-based information sharing, midwives may be held adversely responsible for any misinformation shared within professionally moderated groups. They voiced fear that midwives' direct engagement in SNS dialogue may contravene mandated professional codes and boundaries, particularly in relation to privately-owned companies such as Facebook. This barrier identified in terms of online care provision highlights the need for healthcare policymakers and governing bodies to establish policies and guidelines relating to professional uses of social media; ideally, this would enable such tools to be used as positive health care applications or interventions.

Essentially, both adolescent mothers and midwives identified additional benefits to midwives' online presence and engagement. This particularly regarded their potential to facilitate not only a more accessible model of care, but also enhanced community-

based connections and knowledge, as well as improved multi-agency liaison for adolescent mothers. These findings are highly significant, as they highlight a possible means for midwifery to engage more effectively within a social model of health, using online platforms to link adolescent mothers with essential community-based agencies, education and care providers to facilitate ongoing social inclusion and life-long health and wellbeing. This finding also extends the understanding of social capital to include enhanced community connections, both locally and online. Findings of this study will now be synthesised and critically analysed in relation to their implications for the midwifery profession.

#### **7.4 Discussion of Findings and Implications for Midwifery**

This study highlights that online networks increase adolescent mothers' sense of community and social capital similarly to face-to-face networks, minus the associated barriers of time and location. Ultimately, adolescent mothers are keen for midwives, or child health nurses, to engage in SNS to create an accessible form of professional dialogue, unaffected by reliance on transport or the challenges associated with initiating appointments. This study suggests both adolescent mothers and midwives consider midwives may extend their knowledge and parenting support to online parenting communities, and, therefore, make a valuable contribution to the often-complex transition into motherhood for many adolescent mothers. The potential for SNS to enhance wellbeing for marginalised individuals is evidenced by the positive experiences of adolescent mothers in this study and supports work by others who have focused on the benefits of SNS use for marginalised youth (Bannon et al., 2015; Notley, 2009; Dunham et al., 1998).

By 'giving voice' to adolescent mothers, this study highlighted that engagement or investment in online social networks is perceived as having significant and supportive

value for this group, and, thus, an inherent ability to enhance social capital. A significant finding of this study is its elaborated understanding of social capital as a construct to encompass the identified themes. Such elaboration may, following further research and investigation, serve to make the concept more understandable and applicable in an era in which interest in social wellbeing is being directed towards the world of social media.

Whilst social capital is a complex historical construct for which there are multiple definitions, its perceived relevance to global public health strategy is increasing (Ogden, Morrison & Hardee, 2014; Shan, Muhajarine, Loptson, & Jeffery, 2014). Rothon, Goodwin and Stansfield (2012) assert that increasing social capital has a positive effect on adolescents' mental health and educational attainment. These positive effects may prove pertinent to adolescent mothers who are at high-risk of experiencing postnatal depression and high school drop-out (Marino et al., 2016). Research has also highlighted that effective network support is a crucial element of adolescent mothers' breastfeeding success (Grassley, 2010), and as such, enhancing social capital using SNS requires consideration by those supporting breastfeeding, and parenting adolescents, such as midwives.

Enhancing understanding of social capital in an online context may facilitate not only these mothers' current journey into motherhood, but also their long-term social inclusion. Therefore, this study provides new knowledge in relation to the potential capacity of SNS to affect both the wellbeing of adolescent mothers and their children, and society itself. While thought provoking, this initial exploration still requires further analysis, with the development of strategies aimed at building effective interventions for the potential of such technologies to be fully recognised within professional practice.

Using narrative inquiry, this research provided an in-depth understanding of adolescent mothers' experiences of SNS use. Capturing the influence of SNS on their

lives as mothers brings insight to midwives. The insight gained will increase understanding and assist midwives and policy makers to consider innovative ways to engage adolescent mothers and meet their informational and support needs using social media. Interestingly, SNS platforms are appropriately recognised in aged-care research and practice as having the capacity to increase elderly residents' social capital and feelings of community belonging (Chen and Schulz, 2016; Norval, Arnott, Hine & Hanson, 2011; Quan-Haase, Mo & Wellman, 2017). Despite computer-mediated, targeted program interventions being highlighted as suitable platforms for nurses to provide support to adolescent mothers (Hudson et al., 2012; Kauppi & Garg, 2008), there remains a paucity of literature relating to SNS and their potential as innovative platforms of support. It is, therefore, pertinent to consider the value that publicly accessible SNS platforms may harness as platforms of support for vulnerable groups within other healthcare disciplines, such as midwifery.

It is timely for midwives to reconsider how they can engage with social media platforms to promote and support adolescent mothers' health and wellbeing. Ultimately, using digital tools may enhance midwifery-led care by providing alternative support modalities to specialised midwives lending support to adolescent mothers. Examples of successful online interventions established in the UK are 'Little Lullaby—The Place for Young Parents', a website initiated by The Lullaby Trust (n.d) and backed by National Lottery funding and 'The Listen and Involve Project' (Western Sussex Hospitals NHS Foundation Trust, 2015). Essentially, 'Little Lullaby' is a nationally recognised online community in which young parents and parents-to-be support each other through pregnancy, birth and beyond. Information provided for parents by The Lullaby Trust is based on up-to-date evidence aimed at both reducing high rates of sudden infant death syndrome among populations of young parents and improving infant health and

wellbeing. The charity's website does not include professional contact or direct involvement by midwives or nurses but highlights the capacity for evidence-based information sharing and moderated peer support, which can be developed in an online space. Similarly, the Listen and Involve Project, an initiative championed by midwives in West Sussex UK, uses Facebook groups to encourage women to connect and seek both support and information. The midwife-run groups received national recognition for successfully engaging young parents and women requiring weight management advice in pregnancy.

Perhaps of even greater significance, is the potential for SNS platforms to enhance continuity of midwifery carer for adolescent mothers. SNS could provide an alternative means of facilitating the relational continuity that is so often lacking in traditional, fragmented models of care, particularly for vulnerable groups of women. Indeed, recommendations arising from this study support findings by McCarthy et al. (2017) in that SNS groups may have the capacity to facilitate new mothers' midwifery continuity of care in terms of both information sharing and relational support. This is deemed important as enhancing engagement with and continuity of midwifery-led care would likely improve childbearing outcomes for adolescent mothers.

The benefits and values associated with continuity of midwifery-led care are well identified (Perriman et al., 2018, Sandall et al., 2016), particularly for vulnerable groups of women such as adolescent mothers (Allen et al., 2016, McRae et al., 2016). It could be proffered that SNS engagement/connections between childbearing women and midwives would extend midwifery-led models of care, strengthen midwifery partnerships and facilitate accessible, timely support by a known midwife, particularly for those, like adolescents, who often choose not to engage in traditional care models. Adolescents are known to be a group who benefit from tailored maternity services to enhance their

engagement and attendance (Moriarty Daley, Sadler & Reynolds, 2013) which, in turn, is fundamental to improving their perinatal outcomes.

Continuity of care by a known midwife is demonstrated to reduce rates of preterm birth and perinatal death (Sandall et al., 2016), both prevalent risks for childbearing adolescents. The midwife, as an online resource, could provide adolescent mothers with reliable information, supportive peer-support groups/networks, community health and education liaison in an environment most adolescents use daily (Anderson & Jiang, 2018). This assistance may, in turn, increase an adolescent mother's ability to be self-determining regarding her and her family's health, education and social needs for the duration of her parenting journey, considered a salutogenic approach to health. A salutogenic approach to health describes an approach that focuses on factors that support human health and well-being rather than on pathogenesis; factors that cause disease (Antonovsky, 1996). More specifically, Antonovsky's (1996) salutogenic model is concerned with the relationship between health, stress, and coping.

The values attributed to SNS as platforms of midwifery support and practical application have neither featured prominently in the literature to date, nor have their positive aspects in helping mothers' transitions to parenthood. While the implications of this study focused on midwives' capacities to harness or enhance the themes identified from adolescent mothers' narratives, the findings are likely significant for many healthcare professionals practising in the healthcare sector. These capacities may be similarly applied to SNS engagement by health professionals lending support to other vulnerable client groups. The concept of SNS-use enhancing opportunities for self-disclosure supports the early work of Valkenburg and Peter (2009) and is further supported by studies that focused on individuals facing stressful life events (Yang et al., 2017; Zhang, 2017). Embarking on parenthood may similarly be considered a stressful

life event for many individuals, particularly adolescents. Interestingly, a recent study related to depressed adolescents reported frequent use of online social networks to express their symptoms (Akkın Gürbüz, Demir, Gökalp Özcan, Kadak & Poyraz, 2017), which, moreover, the authors attest may assist in guiding or alerting relatives, friends and mental health professionals. This finding is pertinent to midwives caring for adolescent mothers in the often-vulnerable perinatal period, whereby midwives' engagement in SNS platforms may facilitate timely recognition of adolescent mothers' symptoms of anxiety or depression. Hence, it is pertinent for midwives to validate and promote the supportive benefits that may be afforded to adolescent mothers' SNS habits, as this group is at much higher risk of adverse mental health outcomes compared to non-adolescent mothers (Aitken et al., 2016; Kleiber & Dimidjian, 2014; Yozwiak, 2010).

This study has illuminated the perceived benefits of adolescent mothers' use of SNS, as well as the potential for midwives to lend these mothers additional help using SNS as support platforms. Ultimately, the findings of this study should lead health care service providers to consider integrating online support communities as extensions of midwifery-led care models, and to enhance both adolescent mothers' and perhaps all mothers' capacity to build social capital. However, barriers were clearly identified by midwives in this study. That is, consideration must be given to social media policy and guideline development to enable midwives to properly engage in online platforms as tools to deliver quality care.

Maternity care providers' consideration is warranted in terms of this potential extension to the continuum of midwifery care; although, such consideration must also include arming midwives with the tools they require to successfully engage in online support modalities. Professionals engaging in SNS use (in this case midwives) would likely require expertise in working with pregnant and parenting adolescents in the offline

world to ensure a commensurately considered capability with which to navigate the anticipated complexities of an online care environment. Midwives with specialised roles, such as ‘Midwifery Navigators’ (Gold Coast Health, 2018) or midwives specifically assigned to caring for pregnant and parenting adolescents, would likely be the most appropriately placed to integrate an online component to their existing care provision. However, whilst midwives in this study were keen to expand care and support to widely accessible and widely utilised modalities, they expressed a need for clear guidance in navigating online care provision.

Midwives in this study expressed real concerns around the risks of inadvertently breaching professional boundaries and conduct guidelines, particularly in terms of the potential headline-making capacity of an adverse outcome linked to a publicly-owned site such as Facebook. Likewise, the uncertainty felt by midwives in this study in relation to navigating social media use in their professional capacities is evidenced in midwifery literature (Byrom & Byrom, 2014). In a similar way, the introduction of digitally assistive technologies such as Telehealth instigated initial concerns by doctors and nurses (deGrood, Raissi, Kwon & Santana, 2016; Koivunen & Saranto, 2018; Wessels, Taylor & Coates, 2017) despite such technologies using secure, custom-built online communication channels. Indeed, those who choose to practise online must become familiar with online modalities, understand the need to use safe practices and adhere to professional codes of conduct and ethics in relation to social media use.

Future midwifery practice standards need to incorporate the terms and conditions for midwives practising in an online support community, or online models of care. Midwives in this study considered midwives would require supervisory support and ongoing expert guidance if online structures were to be integrated into clinical practice. George, Rovniak and Kraschnewski (2013) emphasised the dangers of professional social

media use that have sensationalised news headlines and driven fear into practitioners in relation to their use of social media, albeit totally disproportionate to the consideration of positive applications. Similarly, concerns expressed by social work organisations working with at-risk youth prompted Dekelver et al. (2011) to recommend that organisations create their own social media sites.

Professional codes of conduct need to be reconsidered in terms of incorporating the Internet ‘space’ into clinical practice innovations. Health authorities, or peak midwifery bodies, must consider creating purpose-built online SNS platforms to facilitate professional–client engagement in a safe and moderated environment. Indeed, midwife participants suggested that purpose-built SNS platforms may avoid issues surrounding ‘ownership’ of personal and professional information by companies such as Facebook, a timely suggestion since data security on the popular SNS platform came under public scrutiny in March 2018 with the exposure of the ‘Cambridge Analytica’ scandal (Nine Digital, 2018). Findings from this study emphasise the importance of initiating ‘closed-access’ groups of mothers from within privately moderated, purpose-built online platforms. In view of these and similar anxieties, it would be considered essential for employers and policymakers to articulate clear boundaries and guidelines in relation to any midwifery care provided in both an online capacity and for peak professional bodies to formulate cohesive guidelines around social media use in contemporary midwifery practice.

In addition to these concerns, it is important for midwives to highlight the potential dangers of seeking health advice online due to the potential for misinformation. The study findings reinforce adolescent mothers’ use of Internet and SNS tools when seeking information, advice and support related to their parenting role. Midwives in this study were expressly concerned about the potential for adolescent mothers to be

misinformed by information shared in online groups. Concerns voiced by midwives in this study support those shared by midwives in a study by Lagan, Sinclair and Kernohan (2011) that examined the influence of online misinformation on women's decision-making processes. Recent research indicates that other allied health professionals share similar concerns around the potential for online health misinformation (Graham et al., 2017; Fields, 2016; Fredriksen, Moland & Harris, 2018), highlighting the need to consider strategies that support healthcare consumers to identify evidence-based sources of advice and information. In the interim, while governing bodies and regulatory agencies in Australia steer the future of professional social media use, midwives require the capacity to guide parents to apps and websites that promote evidence-based advice and information. Being conversant with popular SNS, blogs, forums, sites and apps will enable midwives to assist adolescent mothers to navigate the online parenting world until midwives can safely 'enter this space'.

The findings of the study also have implications for midwives' education program curricula. Providing midwifery care and support through online SNS platforms would be considered an innovative practice setting. As such, these education program providers would need to include content surrounding online care provision in both undergraduate and postgraduate curricula within the tertiary education sector, and in terms of providing educational 'in-service' opportunities in operational practice settings as continuing professional development for midwives. In this way, nurse educators in Canada identified practical and theoretical examples for family nurse practitioners wanting to embrace social media into their practice (Schroeder, 2017), a strategy likely to benefit nurses and midwives. Similarly, medical education programs in parts of Australia have adopted simulated learning around the use of Telehealth consultation for medical students' and

rural doctors (Knight et al., 2016), with midwives and nurses likely to require similar practical learning experiences to establish successful SNS platforms of support.

Employers of midwives, particularly of midwives working to provide care to vulnerable or ‘high-risk’ women, may consider using the insights illuminated by this study to develop programs or interventions to enhance midwifery support for women who are known to experience challenges in accessing traditional models of maternity care. Findings from this study may also assist in the development of strategies that influence policy making and funding processes to enhance the provision of online midwifery support, and as such, have been communicated at national and international midwifery conferences (see Appendix H). A primary focus of current Australian maternity care planning is to improve services for adolescent mothers and for women in rural and remote areas of Australia (Royal Australian and New Zealand College of Obstetricians and Gynaecologists, 2017). Thus, online interventions may assist in meeting both these key targets. This study highlighted that the needs of midwives must be considered regarding successfully adopting new ways of delivering care to meet the needs of hard-to-reach populations such as adolescent mothers. Importantly, engagement in a more social model of health and consideration of salutogenic solutions proposed by Antonovsky (1996) will serve to highlight midwifery as a more sustainable and health-focused primary health care profession (Downe, 2010; Ferguson, Davis & Browne, 2013; Meier Magistretti, Downe, Lindstrøm, Berg & Schwarz, 2016; Perez-Botella, Downe, Meier Magistretti, Lindstrom & Berg, 2015).

The potential value of the study findings to midwifery will now be presented using a paper that is currently under review following submission to *Women and Birth* journal, paper five. This paper points towards online approaches to midwifery-led care

using a newly extrapolated construct of social capital in the context of adolescent mothers' SNS use.

#### 7.4.1 Declaration of Co-authorship and Contribution

<p><b>Full bibliographic reference</b></p> <p>to the item/publication, including authors, title, journal (vol/pages), year.</p>	<p>Nolan, S., Hendricks, J., Williamson, M. &amp; Ferguson, S. (under review). Building the construct of social capital in relation to adolescent mothers' use of social networking sites (SNS) to encourage salutogenic online approaches in midwifery. <i>Women and Birth</i>.</p>
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Nature of Candidate's Contribution, including percentage of total

<p>Nolan, S is responsible for 55 per cent of the total contribution, the design and implementation of the research, the analysis of the results and to writing the manuscript.</p>
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Nature of all Co-Authors' Contributions, including percentage of total

<p>Hendricks, J (25%), Williamson, M (10%) and Ferguson, S (10%) contributed to the design and implementation of the research, to the analysis of the results and to writing the manuscript.</p>
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Has this paper been submitted for an award by another research degree candidate (Co-Author), either at CQUniversity or elsewhere? (if yes, give full details)

No.

#### Candidate's Declaration

I declare that the publication above meets the requirements to be included in the thesis as outlined in the Research Higher Degree Theses Policy and Procedure

18 March 2019

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(Original signature of Candidate)

Date

#### 7.4.2 Paper Five

Nolan, S., Hendricks, J., Williamson, M. & Ferguson, S. (**under review**). Building the construct of social capital in relation to adolescent mothers' use of social networking sites (SNS) to encourage salutogenic online approaches in midwifery. *Women and Birth*.

# Building the construct of social capital in relation to adolescent mothers' use of social networking sites to encourage salutogenic online approaches in midwifery

## Abstract

**Problem:** social capital is a complex construct that may be difficult to relate to when considering or evaluating online interventions. Importantly, online interventions may have the capacity to offer salutogenic approaches to adolescent maternal health

**Background:** adolescent mothers often experience social isolation and poorer outcomes related to social wellbeing and social inclusion than non-adolescent mothers. Social capital has historically been conceptualised using complex terms and constructs that may prove difficult to understand and/or apply to healthcare strategies or interventions aimed at improving outcomes for these mothers

**Aim:** to extrapolate the construct of social capital and make it relevant to adolescent mothers' use of social networking sites (SNS) to facilitate the inclusion of online platforms as extensions to midwifery-led models of care

**Methods:** focus groups and interviews were conducted with adolescent mothers and midwives in Western Australia

**Findings:** themes identified within this study are embedded into a new definition of social capital in the context of social networking site use. This may facilitate the planning, implementation and evaluation of online interventions as extensions to midwifery-led models of care.

**Conclusion:** this study extends the understanding of social capital in the context of adolescent mothers' use of social networking sites. This may facilitate the study of online interventions aimed at enhancing social capital for this group of mothers, ensuring that midwives, educators, managers and researchers are cognisant with the salutogenic value inherent in SNS use.

**Keywords:** Social capital, social networking sites, adolescent mothers, online support, online interventions, salutogenic approaches

### Statement of Significance

**Problem:** Social capital is a complex construct that may prove difficult to relate to when considering salutogenic approaches to adolescent maternal health.

**What is Already Known:** Adolescent mothers' use of social networking sites demonstrates enhanced social support, social wellbeing and social capital. Adolescent mothers, and midwives consider that professionally moderated online platforms may further enhance outcomes for adolescent mothers.

**What this Paper Adds:** Salutogenic online interventions may be facilitated using a newly developed understanding of social capital in context. An enhanced understanding may encourage online extensions to midwifery-led models of care for vulnerable groups of mothers, such as adolescent mothers.

## Introduction

Childbearing can present challenges in relation to economic, role and identity adaptation (Glenn, 2016; Laney, Hall, Anderson, & Willingham, 2015), but motherhood during adolescence often creates intergenerational cycles of poverty, social exclusion and ill-health (World Health Organisation, 2018). Social support and social capital are constructs often associated with enhanced wellbeing and social satisfaction (McPherson et al., 2014; Rocco & Suhrcke, 2012), with enhanced support closely linked to improved outcomes for adolescent mothers (Brown, Harris, Woods, Buman, & Cox, 2012; Hudson et al., 2016). Social networking sites (SNS) are demonstrated to enhance social support and social capital for adolescent mothers (Nolan, Hendricks, & Towell, 2015, 2016), and both mothers and midwives highlight the potential for midwives to harness or enhance social capital for adolescent mothers by engaging in SNS platforms (Nolan, Hendricks, Williamson, & Ferguson, 2018). Extending understanding of social capital in the context of adolescent mothers' use of SNS may encourage salutogenic approaches to adolescent maternal health, whereby online platforms of support can be integrated into midwifery-led models of care.

Definitions of key terms are provided:

- Adolescent - The World Health Organisation's (WHO) (2017, p. viii) definition of an 'adolescent' as 'a person aged 10 - 19 years' has been used throughout this study and for the purpose of this paper.
- Social Networking Sites (SNS) – This term is used to describe any Internet website that enables users to create public profiles and form relationships with other users (Boyd & Ellison, 2007). Social networking sites can describe community-based websites, online discussion forums, chatrooms and other social spaces online.
- Social Capital - Social capital has historically been conceptualised as the resources invested into and produced by social networks and their value for both individuals, groups and societies (Bourdieu, 1986; Coleman, 1988; Putnam, 2000a).

## Background

Adolescent mothers often experience feelings of isolation, social and economic strain, and demonstrate significantly poorer infant and maternal health outcomes than non-adolescent mothers (Marino, Lewis, Bateson, Hickey, & Skinner, 2016; Mollborn & Jacobs, 2012; Tridenti & Vezzani, 2017; World Health Organisation, 2018). Appropriate maternity service provision, psychological and social support has, however, been shown to mitigate many of the risks associated with adolescent pregnancy and parenting (Marino et al., 2016; Ruedinger & Cox, 2012; Smyth & Anderson, 2014). Maternal risks include depression and repeat unplanned pregnancy (Marino et al., 2016) and risks to infants include stillbirth, prematurity and low birth weight (Australian Institute of Health and Welfare [AIHW], 2018; Ganchimeg et al., 2014).

Social support, whether it be from partners, family, friends or professionals has been shown to positively affect adolescent mothers' postnatal adjustment, (Angle, Divney, Magriples, & Kershaw, 2015; Brown et al., 2012; Hudson et al., 2016; Keys, 2008; SmithBattle, Loman, Chantamit-o-pas, & Schneider, 2017; Whiteley & Brown, 2010), influencing depressive symptoms (Brown et al., 2012; Reid & Meadows-Oliver, 2007) and perceived parenting competence (Angle et al., 2015; Umaña-Taylor, Guimond, Updegraff, & Jahromi, 2013). As strategic interventions aimed at improving outcomes for adolescent mothers demonstrate inconclusive and inconsistent results (SmithBattle et al., 2017), it is timely and important to consider ways to enhance social capital for these mothers as a more effective means of salutogenic intervention.

Social capital includes the construct of social support, and its associated domains; tangible, emotional, appraisal and informational support (Gottlieb & Bergen, 2010; House, Kahn, McLeod, & Williams, 1985). Individuals engage in supportive relationships in both online and offline contexts, with social networking sites merging the boundaries between these environments (Ellison, Steinfield, & Lampe, 2007; Xie, 2008). References to social capital span a wide range of geographical locations and populations, and with the explosion in popularity of online social media need expanding to include online networks and communities. Social capital is a complex historical construct for which there are multiple definitions, however, its perceived relevance to global public health strategy is increasing (Hindhede & Aagaard-

Hansen, 2017; Ogden, Morrison, & Hardee, 2014; Shan, Muhajarine, Loptson, & Jeffery, 2014). Social capital is inconsistently understood by clinicians and policymakers, particularly in the public health arena (Moore, Haines, Hawe, & Shiell, 2006; Putland, Baum, Ziersch, Arthurson, & Pomagalska, 2013).

Pierre Bourdieu, James Coleman and Robert Putnam provide seminal constructs of social capital, inspiring contemporary understanding (Bourdieu, 1986; Coleman, 1988; Putnam, 2000a). Bourdieu (1986, p. 248) describes social capital as 'the aggregate of the actual or potential resources which are linked to possession of a durable network.....or in other words, to membership in a group'. Coleman (1988) extends this understanding to represent social resources that occur in diverse aspects of a social structure, used to facilitate social action and produce desirable benefits to individuals and groups. Social capital was further defined by Putnam (2000b, p. 19) as 'connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them'. Putnam's (2000b) construct facilitated the ability to measure acquired social capital, whilst the analysis and interpretation of the nuances related to the construct are largely inspired by Bourdieu (1986). The nuances, or subdimensions of social capital are largely based on whether they are measured as *structural or cognitive* items, viewed as serving the purpose of separating 'what people do' from 'what people feel' (Harpham, 2008, p. 51) with reference to actual or perceived resources. Putnam (2000b) also differentiated between two forms of social capital, bonding and bridging, that relate to the strength between ties or connections. Bonding capital refers to strong ties that facilitate emotional support, whilst bridging refers to weaker ties that provide acquaintance type connections and useful information, rather than deeply invested emotional support (Putnam, 2000b).

Varied constructs, definitions and applications mean measuring social capital, and improvements in related outcomes remains fraught with difficulty and inconsistency (Putland et al., 2013; Schram & Fine, 2011), largely due to the distinct lack of overarching frameworks or tools to measure the impact and relevance of social connections or the value of group membership. Schuller (2007) argued that the concept of social capital has been used in an overly versatile way and applied to almost any social situation, further complicating group comparison and impact evaluation. The Australian Bureau of Statistics [ABS] (2004) published a broad conceptual framework for social capital analysis, including indicators for measuring

social capital, despite this, inconsistency in the study of social capital remains. Moreover, Schram and Fine (2011) argue that the construct has lost meaning, being utilised to blame individuals, rather than capitalist values, for an increasing lack of social cohesion. Social capital is a construct that may mean different things to different people depending on cultural or political influences, thus making evaluation of the impact of social capital on health understandably difficult.

To date, most studies that have attempted to measure relationships between social capital acquisition and use of SNS have focused on student populations (Cheung, Chiu, & Lee, 2011; Ellison et al., 2007; O'Dea & Campbell, 2011; Steinfield, Ellison, & Lampe, 2008; Valenzuela, Park, & Kee, 2009). Those engaged in tertiary education are long-argued to misrepresent wider populations based on existing levels of education and motivation to network (Nie, 2001). Other studies have applied diverse measures of social capital to varied populations of adolescents (Ahn, 2012; Ellison, Wohn, & Greenhow, 2014; Lee, Park, Na, & Kim, 2016). There remains a paucity of literature focused specifically on adolescent mothers and the social capital implications of their social media use despite the challenges they face in terms of social wellbeing and inclusion.

Research related to adolescent mothers' use of SNS has shown that they use social media to seek healthcare information (Logsdon et al., 2014; Logsdon, Mittelberg, & Myers, 2015). This study extended knowledge to suggest SNS use provides adolescent mothers support in ways highly indicative of social capital (Nolan et al., 2015, 2016), providing a more in-depth understanding of social capital in the context of adolescent mothers' use of SNS. It also highlighted adolescent mothers' desire to engage with midwives in an online context (Nolan et al., 2018) which may encourage the integration of salutogenic online approaches within midwifery-led models of care. Salutogenic approaches to health and wellbeing, proposed by (Antonovsky, 1996) focus on enhancing health rather than treating disease or identifying pathogenesis. Such approaches may serve to improve outcomes for adolescent mothers and highlight midwifery as a primary healthcare profession that promotes wellbeing and facilitates maternal self-determination (Downe, 2010; Ferguson, Davis, & Browne, 2013; Meier Magistretti, Downe, Lindstrøm, Berg, & Schwarz, 2016; Perez-Botella, Downe, Meier Magistretti, Lindstrom, & Berg, 2015). Enhancing support and feelings of social connection is

a salutogenic move towards health for all but may prove particularly important for adolescent maternal health in terms of facilitating long-term social wellbeing and inclusion.

This paper discusses conclusions from a two-phase research study focused on the social capital building capacity of SNS and offers recommendations to facilitate the integration of salutogenic platforms of support into midwifery-led models of care.

## Research Question

How is the construct of social capital explicitly relevant to adolescent mothers' use of SNS, and may an enhanced understanding encourage online extensions to midwifery-led models of care?

## Design

Narrative inquiry was chosen to guide this study for its ability to uncover the meanings inherent in human experience (Connelly & Clandinin, 1990). Narrative research is embedded in the Interpretive research paradigm whereby researchers interpret participants stories, attempting to uncover the ways in which they experience the world, or in this case, the experience of SNS use in relation to building social capital.

## Participants

Twelve adolescent mothers and five midwives from Western Australia (WA) participated in a two-phase study. Initial participants responded to a study advertisement, suggesting further participants from within their peer-networks via snowball sampling. Mothers were aged under 19, lived in WA, spoke and understood English, used SNS, and had given birth to a live child or children with whom they resided and had parental responsibility for. Initially, seven mothers shared their experiences in relation to any support SNS use may provide and if/how this may influence their experiences of motherhood. Subsequently, five additional mothers confirmed identified themes, and along with five midwives who volunteered participation, explored the capacity for midwives to enhance social capital for adolescent mothers by engaging in innovative ways (online platforms) to provide midwifery care. The midwives were registered with the Australian Health Practitioner Regulation Agency (AHPRA), worked and resided in WA and had experience working with adolescent mothers.

## Ethical considerations

Ethical clearance was provided by the Edith Cowan University Human Research Ethics Committee (HREC), including ethical considerations; the engagement of minors (those aged under 18 years) in research studies; confidentiality, anonymity, protection of participant's rights and emotional vulnerabilities, and; the ownership, protection and long-term storage of data. Participants consented to digital recording of interviews and focus groups for transcription and analysis purposes. Trustworthiness was attended to by verifying the researcher's interpretation of narratives throughout the research process and validating themes with an expert team of researchers.

## Methods

Interviews and focus groups were conducted over the course of two study phases in 2014 to elicit personal narratives of experience. These experiences related to adolescent mothers' use of SNS to build social capital and the capacity of midwives to enhance social capital by embracing online extensions to midwifery practice. Interviews and focus groups were conducted in locations chosen by participants and recruitment continued until data saturation had occurred. Data collection and thematic analysis occurred concurrently using constant comparison methods and multiple layers of coding, with the iterative nature of narrative research leading to modifications in both data collection and presentation of findings. Themes identified in phase one led to the development of the second study phase in which midwives' capacity to harness or enhance SNS acquired social capital was explored. Challenges in maintaining engagement with adolescent mothers required modifications from group to individual interviews, and the similarity of data presented by mothers and midwives in phase two facilitated the combined development of themes (Nolan et al., 2018).

## Findings

This paper discusses overall study findings in terms of their application to conceptual knowledge, midwifery practice, education, research and policy development. Findings from each study phase indicated that SNS use affords adolescent mothers valuable support and social capital and has the subsequent potential to enhance their social wellbeing (Nolan et al.,

2015, 2016). Contemporary challenges faced by adolescent mothers were clearly highlighted within the narratives, Ally reflected:

“During pregnancy I was terrible, I was just so sad and that, that none of my friends wanted to hang out and go out with me anymore really, because I was still going to school then” (P9).

Justine explained the importance of SNS use:

“I’d feel like totally lost without it at times I suppose, I can be at home with (names baby) yet still feel that I know what everyone’s up to kind of thing, see if they want to do anything, just ask them like, or just chat to them” (P10).

Sara also confirmed the value of online connections:

“You know that there are still people out there that care about you even though you are homebound so to speak, it’d be hard to feel part of things otherwise” (P11).

Alisha went on to explain the resultant wellbeing:

“Other mums inbox you and tell you what a great job you are doing, and just help by positively reinforcing what you are doing, and it helps to get you out of that little rut” (P8).

Supportive domains described in relation to SNS use included tangible support in relation to feeling socially connected to the community and significant others, emotional support in terms of experiencing increased parenting confidence and reduced parental stress and informational support in terms of experiencing timely access to information and non-judgemental advice. Many mothers also considered the receipt of emotional support to be enhanced by interacting in an environment conducive to enhanced self-disclosure. The themes identified within this study afford an enhanced understanding of social capital in context, extending the work of seminal social capital theorists (Bourdieu, 1986; Coleman, 1988; Putnam, 2000a) to the online environment. The researcher proposes a contextual definition in relation to adolescent mothers’ use of SNS,

*'Connectedness to community, friends, family and peer-groups that increases confidence and reduces stress, in an environment conducive to enhancing the disclosure of feelings and the timely acquisition of advice, reassurance and information'.*

An enhanced understanding of SNS acquired social capital and the use of more relatable terms may facilitate more coherent and consistent study in relation to social capital and associated outcomes. Mothers in the study were keen to engage with midwives in an online context, explaining that midwives' engagement in online platforms would serve to validate the accuracy of information shared via SNS and ensure legitimate online group memberships. Lisa explained:

"(Without Facebook) I wouldn't know anything! (Laughs), just like the questions you ask, like who else can you ask? it would be helpful (SNS contact with midwives), like it would answer a lot of the questions that probably need to be answered correctly by a professional" (P7).

Midwives engaging in dialogue about SNS use was also perceived as important in terms of validating the benefits that can be afforded adolescent mothers by use of SNS and enhancing online safety. Kayleigh stated:

"They (midwives) could tell us how it (SNS use) might help us feel less lonely" (P12).

Importantly, Kayleigh highlighted the potential for enhanced relational midwifery care in an online context, stating:

"It'd be great to be able to contact like a *known midwife*, like someone you liked and trusted by messaging them personally on a SNS" (P12),

explaining the ease of access this would provide:

"You could access a page or app from any device or even a public internet place really" (P12).

Fiona was also clear about how she envisioned the emerging role of the midwife:

"a specific App, like 'Young mothers App', I reckon there should definitely be an App created for young mums" (P4).

Ally explained why online platforms would enhance current models of care:

"I'd actually message the child health nurse through an SNS because whenever I try to call her it just goes straight to message bank, every time, and I'm like ...right, Facebook group" (P9).

The salutogenic effect of midwives' SNS engagement was proffered by Ally:

"Linking mums then (early postnatal days) would be great because you feel quite alone..... in the early days in particular when you are emotional and stuff, it would help to have been given a link to something and to midwives" (P9),

extending this appreciation to enhanced connections in the community:

"It'd be so good (SNS contact), like it's not something you are aware of at all, like what's out there, what's happening locally and stuff (P9).

Alisha would have appreciated online breastfeeding support:

"It (SNS contact) would have so helped me when I was struggling with breastfeeding, contact with both (mothers and midwives), the midwives I think would've been good because you could message easily while you're in the moment, rather than making a call which is harder" (P8).

Associations like the Australian Breastfeeding Association (ABA) provide valuable online support to members (Bridges, 2016) but professional online engagement is currently lacking. Mothers' narratives also referenced other types of social capital, similar to those alluded to by Notley (2009) in her study of marginalised adolescents. Jodie and Della experienced financial gain by engaging in 'buy/sell' links within their SNS groups, and Jodie had also been encouraged to seek further qualifications in photography, explaining:

"Before I had put all my stuff on Facebook I didn't really think that much of my photography, but then someone thought I was a professional photographer! That's what really pushed me into making the photography page, and getting it up and running and all that, it's given me the confidence to do that - I am now going into a photography course at the end of the year" (P6).

adding:

"Yes, it's (Facebook) helping us financially as well; people sell baby clothes, baby toys, high chairs, bouncers things like that....and on Facebook there is a buy/sell group right here in (names hometown)" (P6).

These findings support those of (Notley, 2009) in that by defining and understanding the social value of adolescent mothers' SNS use we can move toward a policy framework that not only addresses any potential online risks, but supports midwives to provide digitally inclusive care via online platforms.

Sara highlighted safety concerns:

"I guess they'd (midwives) have to think about safety too though as it's for young people, making sure it's a safe site? But as I said, I'd be more likely to join a group online if I knew it was legit" (P11).

Midwives were intensely aware of concerns surrounding professional use of social media, Charli (midwife) asserting:

"Talking about medical things in this environment, it's just the legal side of it all, that's what I think it's always going to come back to sadly with Facebook" (P5),

clearly illuminating the need for supportive guideline and policy development to potentiate supportive, accessible care provision for adolescent mothers using social media.

Charli (midwife) added:

"It takes a certain person (midwife) with a certain level of experience to educate them effectively in a forum like that..., they might then even encourage each other to do courses, or something to do with education or work too?" (P5).

Charli's statements highlight the capacity for online platforms of support to include links to community services, local and online groups, education providers and mental/sexual health services. Integrating such platforms as components of specialised midwifery-led models of care may prove significantly more beneficial in the long-term than historical interventions that have failed to demonstrate consistent improvements in outcomes (SmithBattle et al., 2017).

## Discussion

Salutogenic approaches are becoming widely recognised in healthcare (Jonas, Chez, Smith, & Sakallaris, 2014; Pelikan, 2017) and midwifery (Downe, 2010; Ferguson et al., 2013; Meier Magistretti et al., 2016; Perez-Botella et al., 2015) as a proactive means to promote health and wellbeing. Enhancing social capital for adolescent mothers has the potential to reduce feelings of isolation and marginalisation, thus improve social wellbeing and inclusion (Nolan et al., 2015, 2016). Extending current understanding of the construct of social capital (Bourdieu, 1986; Coleman, 1988; Putnam, 2000a), is intended to provide focus for future research and the application of online social capital related interventions.

Importantly, online platforms have the potential to extend provision of continuity of carer within midwifery-led models of care. Childbearing women have been shown to value care provision by a known midwife (Perriman, Davis, & Ferguson, 2018), a model of care demonstrated to reduce rates of preterm birth and perinatal death (Sandall, Soltani, Gates, Shennan, & Devane, 2016), both prevalent risks for childbearing adolescents. Facebook groups are demonstrated to offer valuable extensions to continuity models of midwifery care (McCarthy, Choucri, Ormandy, & Brett, 2017), thus should be considered integral to future strategies aimed at improving adolescent maternal health.

Recommendations arising from the conclusion of this study include midwives' initiating dialogue with adolescent mothers around SNS use, including cyber-safety, evidence-informed sources of online information and the benefits that may be afforded by membership of moderated online peer-groups. Moreover, midwives' engagement in online platforms would serve to minimise online misinformation, promote health and wellbeing and enhance relational care for adolescent mothers. For policy-makers, recommendations include the creation of purpose-built online platforms that can be integrated into midwifery-led models of care, thus avoiding issues of data ownership by private companies such as Facebook (Nine Digital Pty Ltd, 2018). Any such consideration must include arming midwives with the tools and technical guidance they require to successfully engage in online care modalities, with online working practices considered integral, rather than additional to current workloads.

Tertiary education and clinical practice environments must provide educational opportunities for midwives to feel confident engaging with the Internet and social media applications as

sources of health information and support. Educational content needs to be developed in relation to planning, implementing and evaluating online healthcare strategies and innovations, and how to navigate boundaries, codes of conduct, laws and ethics related to professional use of social media. Midwifery managers may consider using the insights illuminated by this study to develop interventions to enhance specialised midwifery support provision for all women known to experience challenges in accessing traditional models of maternity care. With a current health focus being to improve services for teenage mothers and women in rural and remote areas of Australia (The Royal Australian and New Zealand College of Obstetricians and Gynaecologists, 2017), online interventions may assist in meeting both these key targets.

Whilst social media is often the focus of negative consequences such as cyberbullying (Cassidy, Faucher, & Jackson, 2013) and the demise of self-esteem (Richards, Caldwell, & Go, 2015), it is also time to focus on the positive applications afforded by SNS. The provision of support and sense of community often created by online groups (Ahola Kohut et al., 2018; Nolan et al., 2015; O'Dea & Campbell, 2011) must be highlighted with equal tenacity. Mainstream media, such as reality TV, tabloid journalism and glossy magazines have long contributed to mothers' sense of societal pressure and conformity (Harrison, Clarkin, Worth, Norris, & Rohde, 2016) yet seem overshadowed by the 'ills' of social media applications. It is possibly as remiss to ignore the positive impact that social media can afford individuals (Hampton, 2016) in a modern society of geographically-separated families and often disconnected communities.

Further research is necessary to substantiate the findings of this study and the extrapolation of social capital presented within this context. The creation of online support platforms would facilitate netnographic research from within the online environment and potentiate consumer involvement in the development and evaluation of such innovations. In addition, online research strategies may avoid some of the identified challenges in engaging adolescents in traditional research methods (Schelbe et al., 2014), however, require scrupulous ethical consideration in terms of accessing publicly-available data or intruding into private online spaces (McKenna & Gray, 2018).

## Conclusion

By extending the construct of social capital to relate directly to adolescent mothers' use of SNS it is hoped that clinicians and policy makers will better understand the construct of social capital in an online context. The construct, extrapolated in terms of adolescent mothers' use of SNS may also have relevance for other groups of marginalised adolescents, or mothers, who engage in SNS as a means of enhancing support provision. By enhancing understanding of social capital and what it really means for adolescent mothers, interventions aimed at improving holistic outcomes may more likely be successfully implemented and evaluated. By ensuring that social capital is a more easily understood construct, professionally moderated SNS platforms can be created with the aim of improving relational care, support and social inclusion for adolescent mothers, and possibly all mothers, ensuring that the elements considered most important in this context are taken into consideration.

Recommendations for policy development are required across all areas of midwifery, clinical practice, management, policy, research and education, to prepare midwives for the future of supportive online care delivery. Consideration of the health benefits of integrated online platforms of support is essential in a society with an ever-increasing digital landscape. For women who find traditional models of health and maternity care difficult to engage with, online approaches may move them effectively towards health on their health continuum.

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## 7.5 Study Limitations

First and foremost, an inevitable yet significant limitation of the study relates to the speed with which social media platforms are evolving and changing. Empirical findings are often very context and time specific and may quickly become outdated when newer applications or emerging online platforms increase in popularity. At the time of data collection, Facebook was the only site stated by the mothers as providing them with any social capital related benefits; however, the recent popularity of other social media sites such as Instagram and Snapchat, and the creation of future sites or web-based applications, may influence the findings. Nonetheless, the overall concept that online platforms deserve consideration as forums of support does not change, despite the rapidly evolving landscape of social media creation and development.

Second, consideration in terms of the individual cultural context of adolescent mothers may have enhanced the study. Mothers who participated in the study were from diverse social backgrounds; for example, three were from migrant families, one mother identified as Indigenous, one lived in a rural and remote area, four were not enrolled in education or training and three lived out of their parents' homes. The mothers were considered a homogenous group within the inclusion criteria for this study, however, consideration of cultural diversity may have better enabled others to decide whether findings from this WA study can be related to similar populations.

Third, whilst it is acknowledged that technological advances in health care and clinical practice are continuous, the role of midwives in online support provision is, to date, uncharted territory. As current models of midwifery care do not include SNS platforms or integrated online care provision, midwives in the study have no exposure to, or experience of, SNS use in relation to enhancing midwifery practice, which may be considered a weakness of the study. However, its conclusions do serve as an exploratory

platform for further research into the possibilities and experiences of midwives using and integrating online social networks into practice to reach vulnerable client groups. In addition, whilst all midwives in the study had experience working with adolescent mothers, it may also have enhanced the findings if experience working with this group of mothers had been included as a criterion to participate. Last, it must be acknowledged that this study was only conducted in one location, Western Australia, meaning experiences elsewhere may be different.

## **7.6 Research Process Limitations**

Findings from both study phases were achieved by attempting to interview adolescent mothers at a place and time of their convenience. Interestingly, interviewing adolescent mothers was not easy, particularly when attempting to convene focus groups. Challenges relating to recruitment and engagement have been similarly identified by other researchers aiming to explore the experiences of adolescents (Asheer et al., 2014; Bassett et al., 2008; Daley, 2013; Mills et al., 2013; Pinto-Foltz et al., 2011; Taylor et al., 2016). Like other adolescents, particularly those studied by Pinto-Foltz et al. (2011), mothers in this study found it difficult to attend agreed meeting times and offered multifaceted and varied reasons for their absence. They often faced complex social and family situations, which, at times, hindered their ability to focus on the task of being interviewed even when present—these contextual aspects of the study were captured in Chapter four (section 4.2). These identified challenges became study findings in themselves, in that researchers need to harness ways of facilitating research with adolescents to access this important demographic group more easily. Indeed, online recruitment and data collection methods, while requiring diligent ethical consideration (McKenna & Gray, 2018), may prove more successful in this era of digitally connected adolescent health care consumers.

## **7.7 Recommendations**

Recommendations arising from this study are outlined below. The recommendations relate to midwifery practice, midwifery management and policymakers, midwifery education and midwifery research. Digital technologies are continuously advancing in relation to health care provision and related services. Hence, these recommendations implore the profession and those integral to health care facilitation to recognise the potential benefits of social media applications to advanced care and support provision. They also prompt the implementation of measures to integrate this technological advancement into modern midwifery practice to benefit adolescent mothers.

## **7.8 Midwifery Practice**

### **7.8.1 Recommendation One**

Midwives should engage in supportive dialogue with adolescent mothers about their use of SNS. This would help promote the possible benefits of such use while recognising the need to provide information to enhance online safety.

### **7.8.2 Recommendation Two**

The provision of evidence-based information by midwives using online platforms of support would serve to minimise online misinformation. Likewise, it would promote the health and wellbeing of adolescent mothers.

### **7.8.3 Recommendation Three**

In the interim, midwives need to become conversant with current apps and websites that provide evidence-based information for parents. This would help guide adolescent mothers to reputable high-quality sources of online information.

#### **7.8.4 Recommendation Four**

‘Specialised midwives’ providing care to adolescent mothers would enhance communication by creating closed-access SNS groups within online platforms of support. This helps connect mothers and facilitate engagement with midwives and child health nurses.

#### **7.8.5 Recommendation Five**

The provision of local community knowledge, particularly in relation to child health clinics, education services, support groups, and mental and sexual health services by midwives using online platforms of support would enhance the profile of midwifery practice as a public health strategy. It would also facilitate ongoing health and social inclusion for adolescent mothers.

### **7.9 Midwifery Management**

#### **7.9.1 Recommendation One**

Midwifery managers working in healthcare organisations need to consider the establishment of purpose-built online platforms of support that midwives could use to provide information and support to ‘communities’ of adolescent mothers. Recent research conducted using secret Facebook groups involving all-age mothers and midwife moderators demonstrates that relational and informational continuity of care is achievable using SNS (Facebook) groups (McCarthy et al., 2017).

#### **7.9.2 Recommendation Two**

Managers should consider online working practices and care provision integral, rather than additional to, any current role description in terms of time allocation and remuneration. An online ‘model’ may involve several expert or specialist midwives sharing the responsibility for ‘accepting’ group members, answering questions and guiding mothers to alternative service providers using the online platform.

### **7.9.3 Recommendation Three**

Online platforms that are professionally moderated and accessed only during business hours would require clearly documented channels of communication to be initiated in cases requiring emergency advice and support or acute care provision.

## **7.10 Midwifery Policymakers**

### **7.10.1 Recommendation One**

Policymakers need to develop policies and guidelines in relation to professional use of social media and SNS platforms. This will promote health by creating client–professional dialogue and delivering timely and accessible health care to adolescent mothers.

### **7.10.2 Recommendation Two**

Midwives require ongoing expert technical guidance in relation to the application of innovative technological advancements to care delivery, particularly in an ever-increasing landscape of digital technology. Ideally, this would help improve their engagement with adolescent mothers.

### **7.10.3 Recommendation Three**

Health authorities or non-government agencies should create purpose-built SNS platforms and apps. This avoids use of privately-owned companies such as Facebook, and bypasses safety and data breaches as well as issues related to ownership of information.

### **7.10.4 Recommendation Four**

Purpose-built online support platforms could be promoted as advanced practice innovations within a healthcare organisation’s public website. Collaborative online strategies between tertiary facilities and community-based health and education services may aid ongoing health, social inclusion and self-determination for adolescent mothers.

### **7.10.5 Recommendation Five**

Policymakers could consider the introduction of trained ‘peer mentors’ to moderate online SNS interventions and provide peer-led evidence-based information to adolescent mothers. By training peer mentors, perceptions of ‘group ownership’ would be maintained and moderators would achieve tertiary-level qualifications that further enhance their own capacity for social inclusion in terms of obtaining future employment or educational qualifications. The Lullaby Trust (UK), discussed previously, has successfully utilised this strategy to promote education and support for young parents.

## **7.11 Midwifery Education**

### **7.11.1 Recommendation One**

Educational opportunities must be created to inform all midwives and midwifery students about the importance of the Internet and SNS as key sources of both health information and support for adolescent mothers. Midwives require up-to-date information about the potential benefits that may be afforded to this group’s social wellbeing through their SNS activity, as well as how to promote safety in these environments. These opportunities relate to both tertiary education and operational practice settings.

### **7.11.2 Recommendation Two**

Midwives need to recognise their capacity to provide advice and support for adolescent mothers throughout their care continuum within an online model of care. Midwifery students in tertiary education programs need to know that mothers are keen for midwives to expand opportunities for care provision and dialogue within an online context; they also desire appropriate education to facilitate these efforts.

### **7.11.3 Recommendation Three**

Educational content, in both tertiary facilities and clinical practice settings, must be developed in relation to planning, implementing and evaluating online health care

strategies and innovations. Content also needs to be developed regarding how to navigate boundaries, codes of conduct, laws and ethics related to professional use of social media.

#### **7.11.4 Recommendation Four**

It is imperative that midwifery students and midwives in tertiary midwifery education programs and clinical practice develop the skills inherent in analysing and critiquing Internet-based health information and research findings. This ensures only quality information is disseminated in online forums or interventions. It is also imperative that midwives are involved in developing social media platforms and digital apps to better meet the needs of adolescent mothers.

### **7.12 Midwifery Research**

#### **7.12.1 Recommendation One**

Midwives must be aware of the research methods that may facilitate access to groups of adolescents, including adolescent mothers. Midwives may also need to consider online methods to recruit participants and collect data due to challenges implementing traditional face-to-face research methods.

#### **7.12.2 Recommendation Two**

Further research is required to ascertain whether demographic differentials or cultural diversity affects the ways in which adolescent mothers value their SNS use. This too includes their consideration of how midwives could provide or enhance support using such online platforms.

#### **7.12.3 Recommendation Three**

Little is known about the potential for enhanced midwifery support or the continuity of midwifery care to be achieved using a professionally moderated social media platform. Hence, further research is required to explore the potential of this care

modality, particularly in relation to providing continuity of help to vulnerable groups of women, including adolescent mothers.

#### **7.12.4 Recommendation Four**

Establishing SNS platforms with midwife moderators and providers would enable research to be conducted from ‘within’ the platform itself, using ‘netnographic’ research methods. Importantly, as netnography facilitates the exploration of clinical and psychosocial outcomes from within an established online platform (Witney, Hendricks & Cope, 2015), this would facilitate the development of findings on a potentially larger scale.

#### **7.13 Conclusion**

Adolescent mothers’ experiences with SNS use have been illuminated by providing this group a voice. Interpretation of their narratives demonstrates improved outcomes related to social wellbeing and the inherent capacity of SNS to build valuable social capital that influences their parenting experiences. These mothers attest that midwives have a potentially valuable role to play in their online parenting world and could enhance social capital by engaging in SNS as forums of midwifery support. The development of online care modalities for adolescent mothers, which encompass peer-led support channels, midwife-moderated information sharing and community-based liaison, would also likely assist in meeting key national maternity care targets and facilitate the investigation of further outcomes ‘from within’, using netnographic methods.

Purpose-built online SNS platforms would likely serve the public health arena more appropriately than privately-owned platforms such as Facebook and may prove highly cost-effective in terms of their ability to disseminate support and information to a large and widespread audience. Hence, policymakers must develop appropriate guidelines that facilitate the positive application of social media into health care innovations and

interventions, as these may enhance strategic care planning not only for adolescent mothers but also for childbearing women in rural and remote areas of Australia. Thus, it is contended that the extrapolation of social capital as a construct and its relevance to adolescent mothers in this study provides a necessary and enhanced understanding of the term itself. While the findings of this study require further research and investigation, they may still contribute to the creation of a more relatable and transferable framework from within which to study social capital and health-related outcomes.

The provision of an additional facet to the continuum of midwifery care using online platforms of support may too prove an effective way forward in terms of providing both accessibility and the continuity of care for all vulnerable client groups. Such provision would transport Australian maternity support into the cyber age of digitally driven innovations, thus, enabling midwives to maximise unprecedented opportunities for timely, accessible and widespread interactive midwife–woman communication. Meanwhile, it is essential that midwives become familiar with popular parenting apps and websites and can guide adolescent mothers to reputable sources of online information.

Using an approach that captured the personal significance of SNS use for these mothers provides vital insight to midwives, managers, researchers, educators and policymakers alike. The insights gained in relation to mothers’ desires to engage with midwives in an online capacity will increase understanding and assist those involved in adolescent maternity care provision to reconsider the ethical place of social media platforms in integrated clinical and professional practice. Consideration in terms of the potential contribution of online platforms of support may not only apply to adolescent mothers, but to *all* childbearing women. Thus, let us ‘close the gap’ for the digitally minded consumer and get cyber savvy.

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## Tables and Figures

### Paper one

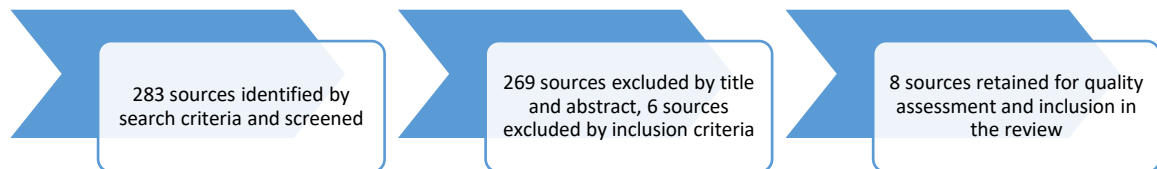


Figure G.1. Flow chart of literature screening.

Table G.1:

#### Results of Literature Search

Search Engine	Search Terms	# retrieved	Met inclusion criteria  (+ if they were duplicate (dup) results)
Cinahl Plus,  (databases included;  Cinahl,ERIC,Medline,PsychINFO)	“adolescenc*  mother*” OR “teen*  mother*” OR “young  mother” OR single  mother (S1)  AND “social  network* site*” OR  “social media” OR	6934  137      60	7

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	email* OR Internet*		
	OR computer* OR		
	web* OR online* OR		
	Facebook (S2)		
	AND social support		
	OR social capital OR		
	information (S3)		
Cochrane Library	S1	78	
	+S2	10	0
	+S3	5	
Scopus	S1	15257	
	+S2	536	5 (5 x dup)
	+S3	39	
ProQuest	S1	13543	
(All databases)	+S2	312	8 (7 x dup)
	+S3	78	
Web of Science	S1	11337	
	+S2	45	4 (4 x dup)
	+S3	69	
Health Collection	S1	1130	
(Informit)	+S2	55	0
	+S3	32	

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Table G.2:

## Summary of Included Literature

	Author	Study Design	Sample size & sites	Design / Data collection methods	Key Findings / comments	Quality Appraisal Tool. include/exclude
1	Dunham, PJ et al (1998). “Computer-Mediated Social Support (CMSS): Single Young Mothers as a Model System” <u>American Journal of Community Psychology</u> , Vol. 26, No. 2.  Canada	Mixed Method Participatory action research	convenience sample  42 single adolescent mothers	Mixed methods. Monitoring CMSS use / measuring exposure to CMSS, Qualitative- thematic analysis of online messages, Quantitative- use of questionnaires, PSI / Sense of Community Scale	Adolescent mothers actively participated in the CMSS. Reduced parental stress, and an improved ‘sense of community’ demonstrated by those using the	Evaluation Tool for Mixed Method Studies. Prof Andrew Long (2005), School of Healthcare, University of Leeds  35/39 relevant criteria

					CMSS more	
Found in; PsychINFO,					frequently.	High quality
ProQuest, Web of Science					Three forms of	
					positive social	INCLUDE
					support provided	
					by use of CMSS,	
					emotional (56%)	
					informational	
					(37%) and	
					tangible support	
					(3%).	
2	Hudson, DB,	Mixed method	Convenience	Qualitative.	The YPP served	Evaluation Tool for
	Elek, S.	Pilot study,	sample	Content analysis of	as a mechanism	Mixed Method
	(1999) “Young Parent’s	exploratory,		online	for providing	Studies. Prof
	Project: a 21 <sup>st</sup> century	descriptive,	9 pregnant	messages/emails,	health information	Andrew Long

	nursing intervention”	content analysis +	adolescents	Questionnaire	and social support	(2005), School of
	<u>Issues in Comprehensive</u>	Quantitative	recruited to	Interview	(emotional	Healthcare,
	<u>Pediatric Nursing.</u>	measures	participate in the	Descriptive stats	support) to	University of Leeds
	Oct-Dec; 22 (4): 153-65.		“Young Parent’s	Thematic analysis of	adolescent	
	U.S		Project” (YPP)	messages	mothers. Findings	35.5/39 relevant
					suggest this	criteria
	Found in; CINAHL, Scopus,				model is also	
	ProQuest				likely to be an	High quality
					effective medium	
					for providing	INCLUDE
					nursing care to	
					adolescent	
					mothers	
3	Kauppi, C & Garg, R.	Mixed method	Convenience	Quantitative –	The Internet	Evaluation Tool for
	(2008) “Development of	Longitudinal 3.5-	sample	structured interviews /	based peer	Mixed Method

Cybermoms: A Computer-mediated Peer Support Group to Address the Needs of Young Mothers” <u>Currents</u> , 7(2)	year study.	72 adolescent pregnant teens and teen mothers	self-report questionnaires  Qualitative – structured interviews and content analysis of online messages	support group was considered the most valuable aspect of the multi-faceted project by the participants. The online group gave them access to emotional, informational and practical support and reduced social isolation.	Studies. Prof Andrew Long (2005), School of Healthcare, University of Leeds  30.5/39 relevant criteria  High quality  INCLUDE
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4	Hudson, DB. et al (2009)	Qualitative	Convenience	Qualitative Thematic	Mothers used the	CASP Qualitative
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	“Online Support for single, low income African American Mothers” <u>The American Journal of Maternal Child Nursing</u> Nov-Dec; 34 (6): 350-5 U.S  Found in; CINAHL, PsychINFO, Scopus, ProQuest, Web of Science	Content analysis	sample  20 single, low-income, African American mothers had access to the “New Mothers Network” (NMN) discussion forum.	analysis of discussion board / online forum message content	NMN discussion forum to share their experiences as new mothers and to seek guidance and support from the research nurses and each other. 8 themes identified relating to social support.	checklist.  Public Health Resource Unit, UK  36/43 relevant criteria  High quality  INCLUDE
5	Hudson, DB.  Campbell-Grossman, C.  (2012) “Effects of an	Quantitative  Longitudinal/  Experimental	Convenience  sample	Quantitative  Data collection tools (validated) x 8	Reduction in emergency room visits for infants	Evaluation Tool for  Quantitative  Research Studies.

Internet intervention on mothers' psychological, parenting and health care utilization outcomes"	Design	42 single, low-income, adolescent, African American mothers randomly assigned to one of two groups, control or intervention.	(Questionnaires).	of intervention group. Reduced self-esteem for intervention group. No differences between the groups regarding depression, stress, parenting competence, loneliness, and satisfaction scores. The online intervention	Prof Andrew Long, School of Healthcare, University of Leeds
<u>Issues in Comprehensive Pediatric Nursing</u> . Vol 35(3-4), 2012 pp. 176-193					44.5/45 relevant criteria
U.S					High quality
Found in; PsychINFO, Scopus, ProQuest		Intervention being use of the "New Mothers Network" (NMN)			INCLUDE

(NMN) is well  
poised for nurse  
driven social  
support via the  
Internet.

6	Sherman, L. Greenfield, P. (2013) “Forging Friendship, soliciting support: A mixed method examination of message boards for pregnant teens and teen mothers”. Computers in Human Behavior, Vol 29(1), Jan 2013 pp. 75-85.	Mixed method Content analysis	Convenience sample –  Threads from 4 message boards for pregnant and parenting teens were analysed, with 50 users from each forum	Content analysis of message board posts	Analysis revealed frequent instances of emotional, instrumental and informational support within message board posts. Online communities for	Evaluation Tool for Mixed Method Studies. Prof Andrew Long (2005), School of Healthcare, University of Leeds 36.5/38 relevant criteria
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U.S	Found in; PsychINFO, ProQuest, Web of Science		selected based on participation. Identified as pregnant teens = 43.3% Identified as teen mothers =46%		pregnant adolescents and adolescent mothers are deemed supportive, provided that these communities are populated by other young mothers or Mothers-to-be.	High quality  INCLUDE
7	Logsdon M C et al (2014) “Preferred Health Resources	Quantitative Cross-sectional	Multi-centre, convenience	Questionnaire Pew Internet Survey	Adolescent mothers spend	Evaluation Tool for Quantitative

and Use of Social Media to	/descriptive	sample	(37 questions related	significant time	Research Studies.
Obtain Health and	Quantitative		to use of social media	on the Internet	Prof Andrew Long,
Depression Information by	measures	n=94 & n=91	and Internet,	including	School of
Adolescent Mothers”.		total 185	particularly in regard	searching for	Healthcare,
<u>Journal of Child &amp;</u>		adolescent	to obtaining health	health	University of Leeds
<u>Adolescent Psychiatric</u>		mothers	information	information. Cell	
<u>Nursing</u> . 2014 Nov; 27 (4):				phones are their	43/45 relevant
163-8.				preferred methods	criteria
				for accessing the	
U.S				Internet, and they	High quality
				use social media	
Found in;				such as Facebook	INCLUDE
CINAHL,MEDLINE,				to search for	
Scopus, ProQuest				health information	
				and as a coping	

					mechanism.	
8	Logsdon M C et al (2014)	Quantitative	Convenience	Questionnaire	Rural adolescent	Evaluation Tool for
	“Use of social media and	Cross-sectional	sample	Pew Internet Survey	mothers spend	Quantitative
	Internet to obtain health	/descriptive			significant time	Research Studies.
	information by rural	Quantitative	15 adolescent		on the Internet	Prof Andrew Long,
	adolescent mothers”.	measures	mothers		including	School of
	<u>Applied Nursing Research</u>				searching for	Healthcare,
	2015 Feb; 28 (1): 55-6.				health	University of Leeds
					information. Cell	
	U.S				phones are their	35.5/45 relevant
					preferred methods	criteria
	Found in; MEDLINE,				for accessing the	
	Scopus, ProQuest, Web of				Internet, and they	High quality
	Science				use social media	
					such as Facebook	INCLUDE

to search for

health

information.

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Table G.3:

Criteria Used to Determine Methodological Quality of Papers

Checklist	High Quality	Medium Quality	Low Quality
Evaluative Tool for Mixed Method Studies	27-39	14-26	1-13
Evaluation Tool for Quantitative Research Studies	31-45	16-30	1-15
The CASP Qualitative checklist	30-43	15-29	1-14

## Paper Four

Table G.4:

Phase One Themes

Themes identified in	Supportive domains
Phase 1	
Social connectedness	Tangible support – enhanced social connections with existing and newly formed peer groups
Increased parenting confidence	Emotional/Appraisal support - feelings of increased confidence in parenting role and in helping others
Reduced parental stress	Emotional support – timely access to advice and reassurances
Enhanced self-disclosure	Emotional support – enhanced ability to share intimate feelings & emotions
Access to information	Informational support - peer driven, often first/only port of call for information

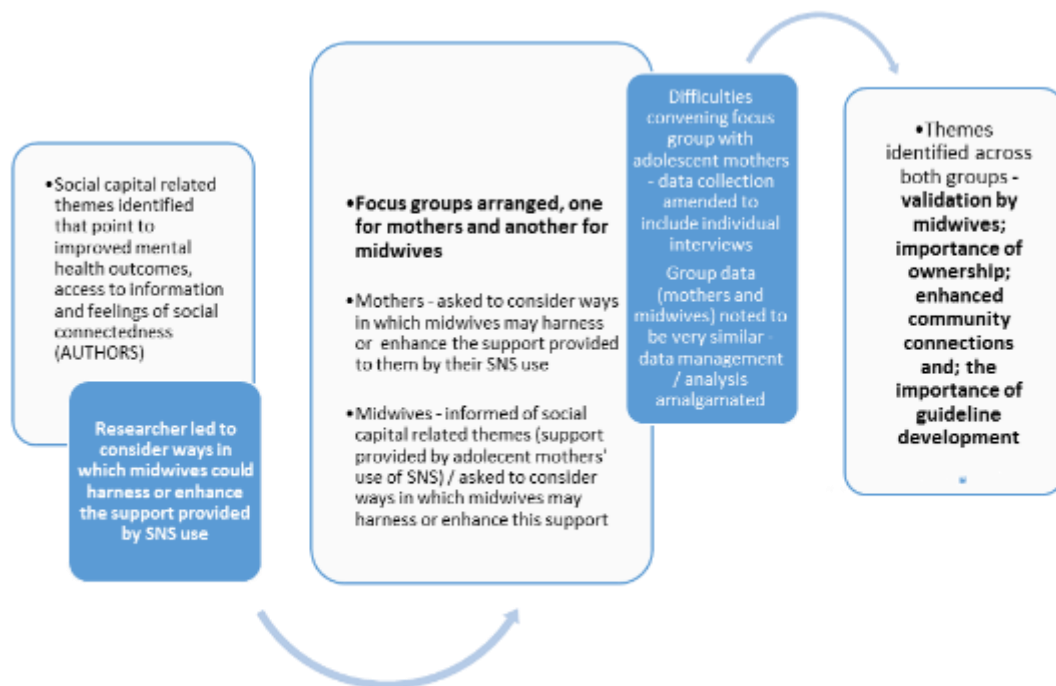


Figure G.2: Diagram of research study process.

## Appendices

### Appendix A: Research Information and Consent Form (Phase One)



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#### EXPLORING THE USE OF SOCIAL NETWORKING SITES (SNS) BY ADOLESCENT MOTHERS IN WESTERN AUSTRALIA

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**You are reading this because you have responded to my advertisement, or have been told by a friend about this research study – Thank you!**

This information sheet will explain all about a research study in which your participation would be greatly appreciated;

#### **Who is conducting the study?**

The study is being conducted by Sam Nolan, a research student from Edith Cowan University (ECU), WA, as part of a Higher Research Degree. The study has been granted Ethics Approval by ECU.

#### **Why is the study being done?**

The researcher wants to explore whether using social networking sites is helpful for adolescent mothers in Western Australia in relation to providing social support, also termed ‘social capital’. This knowledge will help those working with adolescent mothers

to understand the effects of using online networking sites and help them understand the best ways to provide support to new mothers in the future!

**If you would like to participate in the study you must;**

- Be a mother aged 19 years or under
- Have given birth to a child or children that you have parental responsibility for \*, and that live with you
- Live in Western Australia
- Have access to the Internet, and use social networking sites (SNS) such as Facebook, Twitter, or other similar sites.
- Speak and understand English

\*‘Parental responsibility’ means that there are no court orders in place, imposed by the Department of Child Protection & Family Support (DCPFS), or any other agency, that gives another person legal responsibility for your child or children.

**What does the study involve?**

Read this information carefully in order that you can provide informed consent. If you are willing to participate in a short interview please email [snolan@our.ecu.edu.au](mailto:snolan@our.ecu.edu.au). You will need to provide a signed consent form in order to participate; this will be discussed once initial contact has been made.

You will then be **contacted by the researcher in order to arrange the interview**, either face-to-face (preferred), by telephone or Internet-based site such as Skype! This interview will last for approximately 30 minutes. It will be fairly informal, just like a chat in which you tell your story. You will be asked broad questions about ‘your experiences of using social networking sites (SNS) as a young mother’, and ‘what using SNS means for you as

a mother'. The interview will be digitally recorded in order that it can be written down (typed) later on.

You will be offered the opportunity to review the information given during your interview. This will assist the researcher if any responses are unclear. This will also confirm with you that everything you have said, and the meanings behind your responses have been understood and interpreted accurately by the researcher. This is not compulsory, and if requested can either take place as a short discussion in person or on the telephone, or by mail, with a summary of your interview being sent to you for you to read and return.

**Your contact details will be kept totally private and confidential.** You are free to withdraw your participation from the study at any time during the process by informing the researcher that you no longer wish to be interviewed, or to participate. This choice to withdraw participation will bear no consequence, and will not affect you negatively in ANY way.

#### **Who will have access to the information?**

The information that you give during the study is used and accessed **only** by the researcher and their direct supervisor. You will **not be identified** at any stage during the reporting process and your answers will be kept **anonymous and confidential**, by the use of pseudonyms (false names).

All information will be treated confidentially *unless* the researcher becomes concerned for your personal safety, the safety of others, or an identified risk requires disclosure. If

concerned for *your* personal safety, or in the unlikely event that you experience, or disclose, any feelings of anxiety or distress during, or after the interview process, the researcher will recommend that you contact a national support agency such as ‘Lifeline’ (13 11 44), or ‘Beyond Blue’ (1300 22 4636, local call), your local doctor (GP) or local counselling services.

The results of the study will be used to assist healthcare providers to support young mothers. A summary of the study will be available for you to access upon completion of the study via the ECU thesis website - <http://ro.ecu.edu.au>

*If you have any questions about this research project please contact Sam Nolan; [sjnolan@our.ecu.edu.au](mailto:sjnolan@our.ecu.edu.au) with your contact details, or contact supervisor Joyce Hendricks on 6304 3511, email: [j.hendricks@ecu.edu.au](mailto:j.hendricks@ecu.edu.au)*

*If you have any concerns or complaints, or wish to speak to an independent person, please contact the Research Ethics Officer; 08 6304 2170, [research.ethics@ecu.edu.au](mailto:research.ethics@ecu.edu.au) , Edith Cowan University, 270 Joondalup Drive, Joondalup WA 6027*

## CONSENT FORM

Please read the following information and either sign below (preferred), or indicate in the box, that you agree to participate in the study by means of interview.

- I have read the information sheet provided.
- I have parental responsibility for my child or children and meet all the inclusion criteria for the study.
- I have had the opportunity to ask questions, and have had any questions answered to my satisfaction.
- I agree to participate in the study and understand that I can opt out (withdraw from participating) at any time.
- I understand the interview will be digitally recorded so that it can be written down (typed) later on.
- I understand the recording will be erased once it is written down.
- I understand I will be given the opportunity to read and discuss a summary of my interview and the interpretation of my given information, in order to ensure it is an accurate reflection of my thoughts and meanings.
- I understand that the research information may be published in the future and that I will not be identified in any way in the reporting of this study.

NAME -

SIGNATURE (preferred if possible) -

Or, consent to participate in this study by placing a 'X' this box ☐

(signature or verbal consent to be obtained at a later stage)

DATE –

## **Appendix B: Information Letter and Consent Form (Phase Two, Focus Group Mothers)**



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### EXPLORING THE USE OF SOCIAL NETWORKING SITES (SNS) BY ADOLESCENT MOTHERS IN WESTERN AUSTRALIA AS A SOCIAL SUPPORT MECHANISM USED TO BUILD SOCIAL CAPITAL

---

**You are reading this because you have been informed about an exciting research study and shown keen interest in participation – Thank you!**

This information sheet will explain all about a study in which your participation would be greatly appreciated;

#### **Who is conducting the study?**

The study is being conducted by Sam Nolan, a research student from Edith Cowan University (ECU), WA, as part of a Higher Research Degree (PhD). The study has been granted Ethics Approval by ECU.

#### **Why is the study being done?**

The researcher wants to explore whether using social networking sites (SNS) is helpful for adolescent mothers in Western Australia in relation to providing social support, also termed 'social capital'. This knowledge will help those working with adolescent mothers to understand the effects of using online networking sites and help them understand the best ways to provide support to new mothers in the future!

**If you would like to participate in the study you must;**

- Be a mother aged 19 years or under
- Have given birth to a child or children that you have parental responsibility for \*, and that live with you
- Live in Western Australia
- Have access to the Internet, and use social networking sites (SNS) such as Facebook, Twitter, or other similar sites.
- Speak and understand English

\*‘Parental responsibility’ means that there are no court orders in place, imposed by the Department of Child Protection & Family Support (DCPFS), or any other agency, that gives another person legal responsibility for your child or children.

**What does the study involve?**

You will be contacted by the researcher in order to arrange to be part of **a focus group**, (a group interview / discussion), either ‘in person’ in a community-based venue, or on a closed group page on the Internet via an SNS like Facebook. This focus group will last for approximately 60 minutes.

It will be fairly informal, just like a chat in which you tell your story. You will be asked broad questions about; ‘your experiences of using SNS as a young mother’, and ‘if, or how, using SNS helps you as a mother’. These themes will be discussed by the whole group. You will also be asked to contribute to a discussion regarding future ways healthcare professionals could use SNS in their clinical practice to help young mothers. The interview will be digitally recorded in order that it can be written down (typed) later on.

Having received this letter, and a consent form, it is important that you take time to read the information carefully in order to provide informed consent. If you are willing to participate in a **focus group** interview, please sign, or indicate your consent on the consent form and return it to the researcher ([snolan@our.ecu.edu.au](mailto:snolan@our.ecu.edu.au)). You will need to provide consent in order to participate. Further written or verbal consent may be required prior to commencing the group interview.

You will be offered the opportunity to review the information given during your group interview. This will assist the researcher if any responses are unclear. This will also confirm with you that everything you have said, and the meanings behind your responses have been understood and interpreted accurately by the researcher. This is not compulsory, and if requested can either take place as a by mail, or email, with a summary of your group interview being sent to you for you to read and return.

**Your contact details will be kept totally private and confidential.** You are free to withdraw your participation from the study at any time during the process by informing the researcher that you no longer wish to be part of the focus group, or to participate. This choice to withdraw participation will bear no consequence, and will not affect you negatively in ANY way.

#### **Who will have access to the information?**

The information that you give during the study is used and accessed **only** by the researcher and their direct supervisor. You will **not be identified** at any stage during the

reporting process and your answers will be kept **anonymous and confidential**, by the use of pseudonyms (false names).

All information will be treated confidentially *unless* the researcher becomes concerned for your personal safety, the safety of others, or an identified risk requires disclosure. If concerned for *your* personal safety, or in the unlikely event that you experience, or disclose, any feelings of anxiety or distress during, or after the interview process, the researcher will recommend that you contact a national support agency such as ‘Lifeline’ (13 11 44), or ‘Beyond Blue’ (1300 22 4636, local call), your local doctor (GP) or local counselling services.

The results of the study will be used to assist healthcare providers to better support young mothers. A summary of the study will be available for you to access upon completion of the study via the ECU thesis website - <http://ro.ecu.edu.au>

*If you have any questions about this research project please contact Sam Nolan; [sjnolan@our.ecu.edu.au](mailto:sjnolan@our.ecu.edu.au) with your contact details, or contact supervisor Joyce Hendricks on 6304 3511, email: [j.hendricks@ecu.edu.au](mailto:j.hendricks@ecu.edu.au)*

*If you have any concerns or complaints, or wish to speak to an independent person, please contact the Research Ethics Officer; 08 6304 2170, [research.ethics@ecu.edu.au](mailto:research.ethics@ecu.edu.au) , Edith Cowan University, 270 Joondalup Drive, Joondalup WA 6027*

### CONSENT FORM - MOTHERS - FOCUS GROUP

Please read the following information and either sign below (preferred), or indicate in the box, that you agree to participate in the study by means of interview.

- I have read the information sheet provided.
- I have parental responsibility for my child or children and meet all the inclusion criteria for the study.
- I have had the opportunity to ask questions, and have had any questions answered to my satisfaction.
- I agree to participate in the study and understand that I can opt out (withdraw from participating) at any time.
- I understand the interview will be digitally recorded so that it can be written down (typed) later on.
- I understand the recording will be erased once it is written down.
- I understand I will be given the opportunity to read and discuss a summary of my interview and the interpretation of my given information, in order to ensure it is an accurate reflection of my thoughts and meanings.
- I understand that the research information may be published in the future and that I will not be identified in any way in the reporting of this study.



NAME -

SIGNATURE (preferred if possible) -

DATE:

## **Appendix C: Information Sheet and Consent Form (Phase Two, Focus Group Midwives)**

### **INFORMATION SHEET & Consent form– Midwives**



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#### EXPLORING THE USE OF SOCIAL NETWORKING SITES (SNS) BY ADOLESCENT MOTHERS IN WESTERN AUSTRALIA AS A SOCIAL SUPPORT MECHANISM USED TO BUILD SOCIAL CAPITAL

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This information letter outlines a research study in which your participation would be greatly appreciated.

#### **Who is conducting the study?**

The study is being conducted by Sam Nolan, a research student from Edith Cowan University (ECU), WA, as part of a Higher Research Degree (PhD). The study has been granted Ethics Approval by ECU.

#### **Why is the study being done?**

The researcher is exploring adolescent mothers' use of social networking sites (SNS) in relation to providing social support, also termed 'social capital'. Phase 1 of this study, by the use of narrative interviews, identified various ways in which adolescent mothers build social capital from their use of SNS. Phase 2 will utilise focus groups to further explore themes and concepts identified in phase 1. Midwives are invited to participate in focus groups to explore potential ways in which SNS could be incorporated into future

midwifery / healthcare practices in order to build upon the innovative findings of this study.

In order to volunteer participation, you must be;

- A midwife currently registered with the Nursing and Midwifery Board of Australia.
- Living in WA

### **What does the study involve?**

You will be contacted by the researcher in order to arrange to be part of a **focus group**, (a group interview / discussion). This focus group will last for approximately 60 minutes.

The group narrative will be digitally recorded for transcription purposes. The researcher may also take written notes during the discussion.

The discussion will initially explore your experiences of SNS both personally and within professional clinical practice, and discuss the initial findings from phase 1 of the study.

Following this introductory discussion the group will explore the potential for SNS to be incorporated into midwifery practice to assist adolescent mothers to build social capital.

If you are willing to participate in a **focus group** interview, please sign, or indicate your consent on the consent form and return it to the researcher (sjnolan@our.ecu.edu.au). You will need to provide consent in order to participate.

You will be offered the opportunity to review the information given during your group interview. This is not compulsory, and if requested can either take place as a by mail, or email, with a summary of your group interview being sent to you for you to read and return.

**Your contact details will be kept totally private and confidential.** You are free to withdraw your participation from the study at any time during the process by informing the researcher that you no longer wish to be part of the focus group, or to participate. This choice to withdraw participation will bear no consequence, and will not affect you negatively in any way.

The information that you give during the study is used and accessed **only** by the researcher and their direct supervisor. You will **not be identified** at any stage during the reporting process, or within any publications that eventuate from the study, your answers will be kept **anonymous and confidential**, by the use of pseudonyms (false names).

The results of the study will be used to assist healthcare providers and midwives to better support young mothers. A summary of the study will be available for you to access upon completion of the study via the ECU thesis website - <http://ro.ecu.edu.au>

*If you have any questions about this research project please contact Sam Nolan;  
[snolan@our.ecu.edu.au](mailto:snolan@our.ecu.edu.au) with your contact details, or contact supervisor Joyce Hendricks  
on 6304 3511, email: [j.hendricks@ecu.edu.au](mailto:j.hendricks@ecu.edu.au)*

*If you have any concerns or complaints, or wish to speak to an independent person,  
please contact the Research Ethics Officer; 08 6304 2170, [research.ethics@ecu.edu.au](mailto:research.ethics@ecu.edu.au) ,  
Edith Cowan University, 270 Joondalup Drive, Joondalup WA 6027*

### CONSENT FORM - MIDWIVES

Please read the following information and either sign below that you agree to participate in the study by means of participation in a Focus Group interview.

- I have read the information sheet provided.
- I meet all the inclusion criteria for the study.
- I have had the opportunity to ask questions, and have had any questions answered to my satisfaction.
- I agree to participate in the study and understand that I can opt out (withdraw from participating) at any time.
- I understand the interview will be digitally recorded so that it can be transcribed at a later date.
- I understand the recording will be erased once it has been transcribed.
- I understand I will be offered the opportunity to review a summary of my group interview and the interpretation of my given information, in order to ensure it is an accurate reflection of my thoughts and meanings.
- I understand that the research information may be published in the future and that I will not be identified in any way in the reporting of this study.

NAME -

SIGNATURE (preferred if possible) -

DATE -

## Appendix D: Interview Guide (Phase One)

### INTERVIEW GUIDE

#### Demographics / social picture

- How old are you, and how old is your child?
- Who do you live with?
- Who are your main supports? Who were your main supports before you had a baby?

***Tangible support***; who helps you with care of baby, child-minding, giving you a break, night out, time with friends, helps if you were sick?

Who helps you with daily tasks, household chores, making meals, takes you to appointments, doctor, shopping? How do you ask for this kind of help or support?

- Who supports you financially? Where do you get your money from? Tell me what it is like now when you go shopping. Are you still able to go shopping and buy things for yourself? Have things changed since having a baby? Do you feel you are managing OK financially? Enough money to buy essential things for baby and yourself?
- Are you currently at school (studying) or employed? (Gain insight into education gained) Has schooling or work situation changed since having a baby?
- Tell me about your professional and agency supports...
- (Prompt if necessary, child health nurse, BB, Centrelink) Have these supports changed since having a baby?

Now, from within a large group of all mothers, typically around 33,000 each year in WA, you are a part of a small group, approx. 1:1400 of adolescent or 'teenage' mums. **Tell me what it is like for you** to be a teenage mum.

So that I can better understand your life, **tell me about a typical day in the life of a young mum**, for example, take yesterday, and describe your day from waking to going to bed.

This research study is also about social networking sites, what do you understand by the term 'SNS'?

Which SNS, or any other form of social media do you use?

Facebook

Twitter

Ask.fm

Flickr

Instagram

Pinterest

Tumblr

Google+

VK

Meetup

MySpace

Apps? What apps are you using?

Tell me about these different sites, what do you use them for, how do they differ? How do you access them? What else do you use your phone / computer / tablet for?

Within your 'typical day', tell me how many times, and for how long you might access SNS / social media

**“Tell me about your experiences using SNS as a young mum”**

How do you think using SNS helps you?

What do you value about using SNS / social media?

**Use prompts if required:**

**Positive / Social interaction**

Tell me what you do to have fun, have a good time, relax, chill out?

How many people do you have in your life that you do these things with? Who are they?

How did you meet them? Where do you go? Has any of this changed since becoming a mum, what did you used to do to have fun? Have your friends/ activities changed?

**How do you contact people** to arrange social events, times to get together?

**Does social media or SNS help** with having fun, chilling out, relaxation, arranging your events \ activities, meeting people? How?

**Emotional Support**

Who do you go to if you are upset / having a bad day? Worried or have a problem? Have your worries changed since you had a baby? What did you used to worry about before you had a baby? What do you worry about now?

How do you contact people when you want to talk or confide in them? Where / how do you talk to them? **Does SNS or social media help** with getting emotional support when you need it?

How do you share your life experiences, daily stories / events, photos with friends and family? Does using SNS or social media help with this?

**Informational Support**

Who do you go to for information / advice? (Self / baby health, child development, medical issues / life skills, education, employment, events, playgroups? How do you access information? Are there any barriers to getting information/advice?

How do you contact people for information? Do you contact health professionals? How?

How could this be enhanced?

### **General**

Does the amount you use SNS alter if you are having a 'good day'?

Does the amount you use SNS alter if you are having a 'bad day'?

Describe to me the most positive, or helpful experience you have had using a SNS since being a mum.

Are you happy with your levels of social support?

Are there any ways in which you think access to social supports could be improved for you or for other young mums?

Explore what inhibits access to social supports.

## Appendix E: Focus Group Guide (Mothers and Midwives)

### FOCUS GROUP Guide - mothers

- = key concept / theme for discussion
- = only if need prompts
  
- **Demographic** Information / Personal summary
- Age / Age of child(ren) / who live with / who supported by / at school / employed, education
- Financial security? Enough money for housing, bills, food? Enough money for essentials for baby / yourself? Enough for things you need / want?
- Do you feel that your use of SNS gives you access to increased social support than would otherwise be available to you?
  - How?
  - What kinds of support?
  
- Do you feel that use of SNS makes you feel more ‘**connected**’ to the world and/or to others?
  - How?
  - Who?
  - Does it increase connection to friends?
  - Parents?
  - Family?
  - Do you ever feel lonely / isolated?
  - Does it decrease feelings of loneliness / isolation?

- Do you feel that use of SNS gives you better access to information than would otherwise be available to you?
  - How?
  - What information?
  - What other information would you like to access via SNS?
  - From who?
  - Is SNS usually your first port of contact for required information / advice?
  
- Do you feel that use of SNS ever helps you to feel less '**stressed**' in your role as a mother?
  - Do you feel stressed? (Worried, embarrassed, frustrated, burdened, lacking choice / opportunities / control over your life, overwhelmed, burdened, dissatisfied, despondent)
  - What are main stresses / causes of stress?
  - Can you think of a time(s) where SNS interaction has helped reduce parental stress? Or any stress?
  - Has using SNS ever increased feelings of stress (dependant on narrative)?
  
- Do you feel that use of SNS helps you to feel more **confident** as a mother?
  - Do you feel confident as a mother? (Knowledgeable, in control, capable, able to solve problems, able to be a role model to other mothers, good at / comfortable / familiar with your mothering role, sense of accomplishment)
  - What makes you feel confident / what factors / supports?

- Can you think of a time(s) when using SNS has made you feel more confident in your role as a mother?
- Or more confident in general?
- Has SNS use ever decreased your confidence?
  
- Do you feel that you are able to ‘**open-up**’ more or ‘be more honest’ when communicating within SNS than would otherwise be possible?
  - How?
  - Why?
  
- Do you think that **health care professionals/midwives** could use SNS or social media in any way that would enhance your SNS experiences?
 

(Information, access, connectedness, stress, confidence, disclosure?)

**For Focus Group with Midwives—prompts only, allow to unfold**

What is your area of practice, expertise and level of experience. How much experience do you have working with adolescent mothers?

What are your experiences of SNS?

Do you think SNS could be used in midwifery practice to support adolescent mothers?

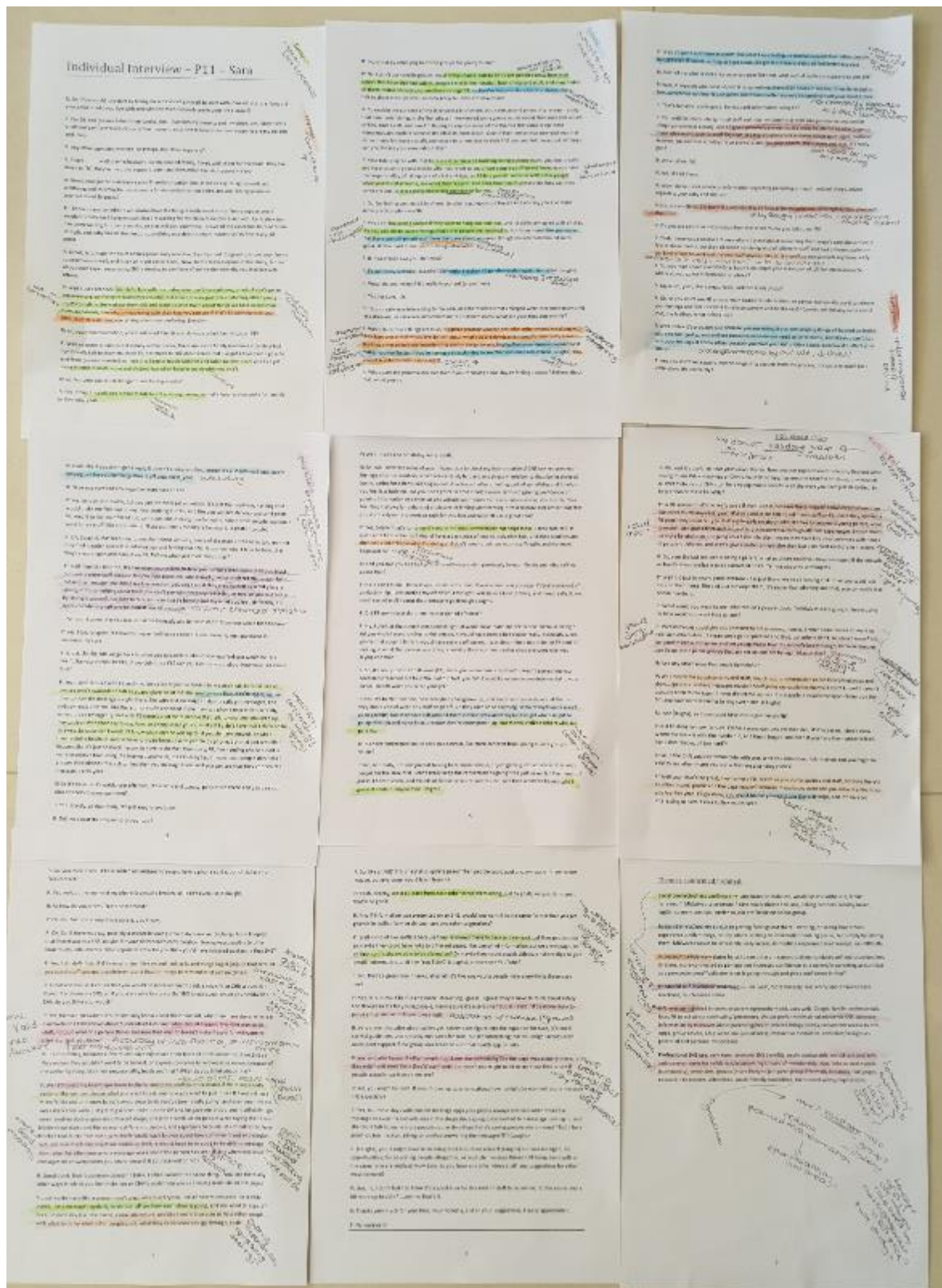
Would SNS use facilitate support provision?

With reference to the findings of this study?

- Support; tangible / emotional
- Informational support, professional guidance

Any concerns/questions/considerations?

## Appendix F: Example of Transcript Coding



# Appendix G: Editorial in Australian Nursing and Midwifery Journal

## MENTAL HEALTH Part 2

### ADOLESCENT MOTHERS' USE OF SOCIAL NETWORKING SITES CREATING POSITIVE MENTAL HEALTH OUTCOMES

By Samantha Nolan, Joyce Hendricks and Amanda Towell

Adolescent motherhood is linked to significantly higher rates of depression and anxiety disorders than for older mothers, with these mental illnesses often manifesting themselves, or continuing to be present long after the actual birth (Coelho et al. 2013; McCracken and Loveless, 2014; Boden et al. 2008).

A recent West Australian study suggests that adolescent mothers' use of social networking sites (SNS) may improve aspects of their mental health related to parenting stress, anxiety and confidence, while increasing their overall social capital (Nolan et al. 2015). Narrative methods were employed to listen to the voices of adolescent mothers regarding their uses and values of SNS. Themes relating to 'increased feelings of social connectedness', 'improved confidence', 'reduced levels of stress' and 'enhanced self-disclosure' were identified. These social capital related themes suggest that midwives could possibly enhance mental health outcomes for this group of mothers simply by promoting careful use of SNS.

Most of the adolescent mothers interviewed reported their SNS use to be 'on and off all day'. The ability to vent feelings and frustrations 'in the moment' via SNS was one of the most valued means of reducing parenting stress. Advice, reassurances and 'likes' received via SNS were reported to improve confidence both with parenting and in terms of their general sense of self-worth. Some mothers felt increasingly able to disclose their feelings and

anxieties openly and honestly via SNS than they would during face-to-face conversations which may also affect their overall mental health. Peer support from other mothers was one of the most valued forms of support identified, however many of the mothers interviewed were also keen for midwives and/or other health professionals to engage in the SNS environment to provide accurate health information, links to community events, and to offer professionally validated peer groups.

Midwives were also interviewed as part of the study and proved enthusiastic about the opportunities presented to both promote and/or enhance the benefits afforded by SNS use to this high-risk group of mothers. They identified safe guideline formation and legal implications as essential considerations for professional practice. Ideas generated from this study included 'young parent portals' or specific 'apps' designed to promote local health clinics and parenting events, incorporate 'FAQ' pages and youth friendly health information, provide links to contact designated healthcare professionals via SNS and most importantly, to encourage engagement in online peer support

groups with or without moderated access.

Such interventions could potentially improve adolescent mothers' mental health using a medium which has become their daily 'norm'. For some mothers, SNS use was considered 'a lifeline' in terms of their coping strategies and mental wellbeing. Midwives may need to promote, if not enhance this 'lifeline' in any ways considered possible if they are to move forward in the ever present and changing world of social media and health. Midwives and Child Health Nurses (CHNs) are in a prime position to ensure that young mothers appreciate the mental health improvement opportunities that can be afforded by SNS use, and to advocate ways to improve their online safety within the SNS environment.

**Samantha Nolan RM, PhD Candidate – University of Canberra**

**Dr Joyce Hendricks, Associate Professor in Nursing, Faculty of Health, School of Nursing and Midwifery, University of Canberra**

**Dr Amanda Towell RN, Post-Doctoral Research Fellow, Edith Cowan University**



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# Appendix H: Conference Presentations

## Conference Poster—Rural Health Conference 2016, Tweed Heads, NSW

### 'No geographical barriers' – The role of online social networking sites in supporting positive mental health for adolescent mothers

Samantha Nolan RM, Dr Joyce Hendricks PhD, Dr Sally Ferguson PhD

University of Canberra

#### Introduction

Adolescent mothers experience significantly higher rates of depression and anxiety than non-adolescent mothers (1). Social support has been demonstrated to improve psychosocial outcomes for adolescent mothers (2), with targeted online group interventions having been proven to provide valuable support (3).



**Social networking sites (SNS)** are now globally accessible, with over 90% of Australian 12 to 17 year olds surveyed by the Australian Communications and Media Authority (2013) reporting daily use of SNS such as Facebook (4). General populations of mothers have been demonstrated to use SNS to remain socially connected (5). A recent US study of rural adolescent mothers reported that almost a third of mothers in the study sought health information from Facebook (6), however there is a paucity of evidence in relation to adolescent mothers' use of SNS in terms of any support or social capital it may provide. Due to their widespread accessibility, SNS also require consideration by healthcare professionals, in terms of their potential as suitable platforms for the provision of enhanced support to adolescents, and in particular, adolescent mothers.

#### Objective of the research

1. To explore the use of SNS by adolescent mothers in Western Australia (WA) in relation to social support and the building of social capital.
2. To explore ways in which healthcare professionals may harness / enhance any support afforded to adolescent mothers by their use of SNS

#### Design & methods

This research is qualitative and follows a narrative inquiry approach. Narrative inquiry is used by researchers wanting to uncover the meanings behind peoples actions and experiences (7). This study focused on the lives of adolescent mothers and their experiences of social support when in an online space using SNS, within the personal, cultural, and social contexts of being a young parent.

**Data collection** occurred in two ways, individual and focus group interviews undertaken in 2014. All interviews were audiotaped, lasted up to an hour, and took place within participants' homes.

#### Findings

12 adolescent mothers self-selected for in-depth interviewing over the course of the study, seven for individual interviews and five for a subsequent focus group interview. The mothers interviewed as part of the second phase of the study confirmed initial themes, and confirmed ways in which healthcare professionals could potentially use SNS as a tool to lend further support.

The five themes initially identified, and confirmed, were social connectedness, increased parenting confidence, reduced parental stress, enhanced self-disclosure and access to information (8).



#### Themes

**Social Connectedness**  
Nearly all of the mothers interviewed reported their SNS use to be 'on & off all day'. SNS use enabled them to feel connected to both established and newly created social groups, with the ability to freely connect to other mothers often noted as 'a lifeline'.

**Parenting Confidence**  
Advice, reassurance and 'likes' received via SNS were reported to improve confidence with both parenting and general self-esteem / self-worth.

**Parental stress**  
The ability to vent feelings and frustrations 'in the moment' and to others 'who understand' via SNS was described as a valued means of reducing parental stress.

**Enhanced self-disclosure**  
Some mothers felt able to disclose their feelings and anxieties more openly and honestly via SNS than they would during face-to-face conversations.

**Access to information**  
Peer-led advice and information was the most valued form of support identified, however mothers were also keen for health professionals to engage in the SNS environment to provide accurate health information.

#### What next? – mothers' perspectives

Adolescent mothers interviewed were keen for healthcare professionals to engage in SNS to provide:

- Accurate, youth friendly health information
- Visible links to community events and supports
- Professionally validated peer groups

They suggested healthcare providers consider using social media to provide youth-friendly education and support, integrating the use of apps, video links and professional contact via SNS.

They considered that the potential benefits that may be afforded to adolescent mothers by their use of SNS should be understood, and promoted by healthcare professionals.

#### Conclusions

Themes identified within this study suggest that SNS use enhances adolescent mothers' social capital in terms of both: their ability to connect to social groups, and to receive valuable emotional and informational support. Some mothers described SNS use as a 'lifeline' in terms of their coping strategies and mental wellbeing. Healthcare professionals are well positioned to inform and support young mothers regarding the potential benefits of careful SNS use, and to advocate ways to improve their online safety. Means of providing further professional support may include: promoting the use of, and engaging in the SNS environment to provide accurate 'youth-friendly' information and enhance peer and community networks.



Using SNS reduces the traditional barriers associated with seeking support, such as time, access, transport and location. Findings from this study may therefore prove pertinent to adolescent mothers residing in rural and remote communities.

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#### Contact

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# Conference Poster—‘Virtual International Day of the Midwife’ 2016

## Adolescent mothers' use of social networking sites, and their positive contribution to mental health outcomes

Samantha Nolan RM, Dr Joyce Hendricks, PhD, Dr Amanda Towell, PhD

### Background

Adolescent motherhood is linked to significantly higher rates of depression and anxiety disorders than for older mothers, with these mental illnesses often manifesting themselves, or continuing to be present long after the actual birth (Coelho et al., 2013; McGroden and Laveless, 2004; Baden et al., 2008).

In 2016, the 'explosion' of social media has afforded the majority of Australian adolescent mothers access to social networking sites (SNS) via mobile phones or tablet devices. SNS have been demonstrated to provide social support and an improved sense of community to sufferers of many conditions and diseases, those marginalised from society and those at risk of depression (Worley 2008; Bamfather et al., 2011; Gwynn et al., 2012).

To date, research into online support for adolescent mothers has largely involved online communities specifically created for adolescent mothers with the main focus being the examination of online content (Danham et al., 1996; Hudson et al., 1999, 2009, 2012; Kuoppi & Garg, 2008; Sherman & Greenfield, 2013). Quantitative methods have been used to measure use of the Internet by adolescent mothers (Logsdon et al., 2004, 2015).

### Objective of the research

To explore the use of SNS by adolescent mothers in Western Australia (WA) in relation to social support and the building of social capital.

### Method

Narrative Inquiry was used in this study. Narrative Inquiry is a process of gathering information (data) through storytelling. These stories are a reflection of multiple realities, and are used by researchers wanting to uncover the meanings behind peoples actions and experiences.

Human beings, individually and collectively lead storied lives and are storytelling organisms by nature (Clandinin & Connelly 2000). The study of narrative is the study of the ways humans experience the world, and in this case the ways adolescent mothers living in Western Australia experience SNS use.

Ethical approval for the study was obtained from the University Human Ethics Committee. Adolescent mothers were invited to participate in in-depth interviews to elicit stories relating to their use of SNS. The narratives were analysed and manually coded to develop themes.

### Findings

12 adolescent mothers self-selected for in-depth interviewing over the course of the study, seven for individual interviews and five for a subsequent focus group interview.

The five themes identified were social connectedness, increased parenting confidence, reduced parental stress, enhanced self-disclosure and access to information (Nolan et al., 2015).

#### Social Connectedness

Nearly all of the mothers interviewed reported their SNS use to be 'on & off all day'. SNS use enabled them to feel connected to both established and newly created social groups, with the ability to freely connect to other mothers often rated as 'a lifeline'.

#### Parenting Confidence

Advice, reassurances and 'likes' received via SNS were reported to improve confidence with both parenting and general self-esteem / self-worth.

#### Parental stress

The ability to vent feelings and frustrations 'in the moment' and to others 'who understand' via SNS was described as a valued means of reducing parental stress.

#### Enhanced self-disclosure

Some mothers felt able to disclose their feelings and anxieties more openly and honestly via SNS than they would during face-to-face conversations.

#### Access to information

Peer-led advice and information was the most valued form of support identified, however many of the mothers interviewed were also keen for midwives and/or other health professionals to engage in the SNS environment to provide accurate health information, links to community events, and to offer professionally validated peer groups.

### Conclusions

For many of the mothers interviewed, SNS use was considered 'a lifeline' in terms of their coping strategies and mental wellbeing. Themes identified within this study suggest that SNS use offers adolescent mothers valuable social support and enhances their social capital in terms of their ability to connect to social groups and receive tangible, emotional and informational support.

Midwives and Child Health Nurses (CHNs) are in a prime position to ensure that young mothers appreciate the mental health improvement opportunities that can be afforded by SNS use, and to advocate ways to improve their online safety within the SNS environment.

The social capital related themes identified within this study suggest that midwives could possibly enhance mental health outcomes for this group of mothers simply by promoting careful use of SNS.

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**Oral Presentation at ‘Optimising Health - Salutogenic Approaches to Health Practice, Policy, Research and Education’ - Conference, Canberra 2016**



**Accepted Abstract**

**‘Enhancing social support and building social capital for adolescent mothers – the role of online social networking sites in optimising well-being for mothers with specific health needs’**

Authors: Samantha Nolan, RM, PhD candidate, Dr Joyce Hendricks (University of Canberra) Dr Sally Ferguson (University of Canberra) Affiliations: University of Canberra

Aim: Highlight recent findings relating to ways in which social networking sites (SNS) contribute to social support and build social capital for adolescent mothers. Convey the unique health needs of adolescent mothers and discuss how maternity care providers may respond to harness the benefits provided by online forums.

Overview: This paper will discuss the unique health needs of adolescent mothers, relating to their future mental health and risks of social exclusion. A critical appraisal of

studies pertaining to adolescent mother's use of SNS will be provided, including recently published research using a narrative approach. This method of inquiry has not been used before to elicit the meanings and values behind adolescent mothers' use of SNS, and ways in which they consider such use may contribute to their overall health and well-being. Themes identified from this study that related to social capital were 'social connectedness', reduced parental stress, improved parenting confidence, enhanced self-disclosure and access to information. Many adolescent mothers interviewed considered their use of SNS 'a lifeline' in terms of their social connections and coping strategies.

The paper provides a discussion point relating to the potential of midwives' engagement with SNS to support the well-being of adolescent mothers. Online forums are accessible platforms for health promotion and education. SNS have the potential to empower adolescent mothers and enable them to take control of their mental, social and spiritual health. This in turn may help them express their needs, realise their aspirations and valuably enhance their social inclusion.

## **ACM 2018 – ‘Coming of Age’ Conference**

**Oral Presentation, October 2018**



### **‘Online Social Networking Sites as Midwifery Platforms of Support’**

#### **Accepted Abstract**

The focus of my PhD research is adolescent mothers’ use of social networking sites to build social capital. Since the 21<sup>st</sup> century ‘explosion’ of globally accessible online social networking sites, research into the health and/or psychosocial outcomes attributed to adolescent mothers’ use of such sites has been minimal. My research found that many adolescent mothers value social networking sites as a source of social support and information from peers, and many are keen to engage with midwives using integrated online platforms.

I will discuss the implications and recommendations of my research; that midwives’ engagement in moderated online social networks/platforms may enhance adolescent mothers’ access to evidence-based information, facilitate social inclusion and improve mental health outcomes for these often-vulnerable women. Midwives, as primary healthcare providers, are in prime-position to influence the transition to parenthood, and promote the wellbeing of mothers, babies and families for generations to come. This is particularly relevant for adolescent mothers who often face adverse clinical and psychosocial outcomes.

Online platforms may be considered innovative future midwifery care models for pregnant and parenting adolescents, with the potential to channel evidence-based information and relational continuity of midwifery care without identified constraints relating to access, timing and/or distance. This presentation will also focus on the need identified by midwives from within the study, for midwifery governance, policy directives and support in relation to future practice interventions involving online/social media platforms.

This research may have relevance for other vulnerable women within maternity service provision, such as those from migrant communities or those experiencing mental illness during the childbirth continuum. There are significant implications for policy makers in relation to professional use of social networking sites as platforms of support, and education providers in terms of highlighting the potential benefits of online support mechanisms, and alternate ‘models of care’ within midwifery practice.