UNDERGRADUATE NURSING STUDENTS: EXAMINING THE CRITICAL THINKING DISPOSITION AND PERSONAL CONSTRUCTION OF NURSING.

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ABSTRACT

The paradigm of nursing and education is changing from that of subservience and obedience to independence and critical thinking. An action research project was undertaken to promote identification of the influence of the traditional paradigm of nursing on the roles of nurses and their relationships to other health professionals.

CHANGING PARADIGMS

In the history of modern (post Nightingale) nursing, the traditional paradigm of the profession was constructed from a variety of streams of thought. These include the notion of an ideal woman as care giver and helper, the idea of the nurse as a helpmate to the medical practitioner, and the religious and military virtues of obedience, sacrifice, and service (van Hooft et al., 1995). Beginning in the 1950's in the USA, and more recently here in Australia, there has been a move to alter the traditional nursing paradigm from that of obedient handmaiden to autonomous professional. Initially, the professionalisers focused on developing a firm research base and nursing theories in order to establish nursing as a distinct scientific discipline. While the boom in academic thinking served the academic nurses well, it had little impact on nurse clinicians at the 'coal face'. Since the late 1980s, the development of the ability of nurses to think critically has been seen as central to the enactment of the paradigm shift that has benefited of nurses in *all* areas of nursing (Rane-Szostak & Robertson, 1996; Kataoka-Yohiro & Saylor, 1994).

The introduction of critical thinking as a fundamental aspect of the nursing curriculum has followed, and continues to follow, a tortuous path. Maynard (1996) points out that in the non-nursing literature many meanings have been attributed to the concept of critical thinking. This lack of consensus in the generic literature has allowed nursing to find a definition of critical thinking which fits the pre-existing paradigm. Maynard also notes that the focus of critical thinking in nursing has been largely on problem solving in relation to clinical actions. In Habermas' terms, this is critical thinking in relation to technical knowledge (Short et al., 1993). Essentially, nursing has, until recently, assimilated critical thinking into the traditional nursing paradigm (in the Piagetian sense) rather than modifying old ways of thinking and behaving so as to accommodate critical thinking and thus advance the new paradigm.

More recently, there has been a call in the nursing literature for developers of nursing curricula to address the moral and emancipatory aspects of knowledge through the use of critical thinking (Tanner, 1996). By necessity then, critical theory must become an essential part of the nursing curriculum. A vehicle to achieve this development of moral and emancipatory knowledge is seen to be reflective practice (Baker, 1996; Johns, 1995) with, according to Johns, the field being led by Australian nurses. Lont's (1995) analysis of nursing curricula in Australia, however, points out that the use of reflective practice in many of the curriculum documents relates to the reflection on practice to improve practice rather than being in the spirit of critical theory, where reflection is seen to be transformative and directed towards changing the status quo (Short et al., 1993). It would appear that within the literature, there may be a confusion of the meaning of similar terms. Some writers use reflective practice in Schon's (1983) sense of reflection in and on action to increase knowledge of practice, and other authors use reflective practice in the critical-theory sense of reflection which allows the person to examine:

"...the unquestioned and largely unchallenged social and economic and political assumptions, values and beliefs that underpin our actions, as well as the institutional practices that surround us" (Smyth, 1986, cited in Short, et al., 1993, p 72).

The purpose of the research undertaken was to find ways to support and promote critical thinking in the education of nursing students. The methodology used was that of action research, which involves a

cyclical repetition of observation, reflection, planning, and action. Since the aim of the research was to find ways to support and promote critical thinking in students, the research group included themselves and their own methods in relation to teaching and learning as part of the action cycles. This paper reports an overview of the findings made as a result of the several action research cycles completed during the research process.

One of the action cycles involved examing the critical thinking dispositions of the participants. Sixty-six (66) second year Bachelor of Health (Nursing) students were invited to complete the California Critical Thinking Disposition Test (CCTDI) and a qualitative response survey developed by the research group. The choice to respond was entirely voluntary. Students were supplied with an information sheet and consent form.

The qualitative response survey asked students to complete four tasks. The first was to brainstorm any words that came to mind in relation to the word 'nursing'. The second task asked students what they considered to be the attributes of an ideal nurse and how they saw the role of nurses in the health

system. Students were also asked to identify the factors that they considered to be influential in their decision to choose to study nursing, and finally, if and why they felt that a questioning attitude would be an advantage or a disadvantage to a nurse.

CALIFORNIA CRITICAL THINKING DISPOSITION TEST (CCTDI) RESULTS

Forty-four (n=44) students of the cohort of sixty-six (66) students completed the CCTDI. Of these, sixty-five percent (65%) had a score in the 'disposed to critical thinking' range (see Table: 1).

While students may have an overall score that fits within the 'disposed to critical thinking' range, Facione et al. (1994) point out that it is the profile of the scales that is most useful from a pedagogical point of view (Figure 1). The sample mean scores were within the 'disposed to critical thinking' range in the areas of Open-mindedness, Analyticity, Inquisitiveness, and Maturity. Mean scores in relation to the Truth-seeking; Systematicity; and CT Self-confidence were not in the 'disposed to critical thinking' range.
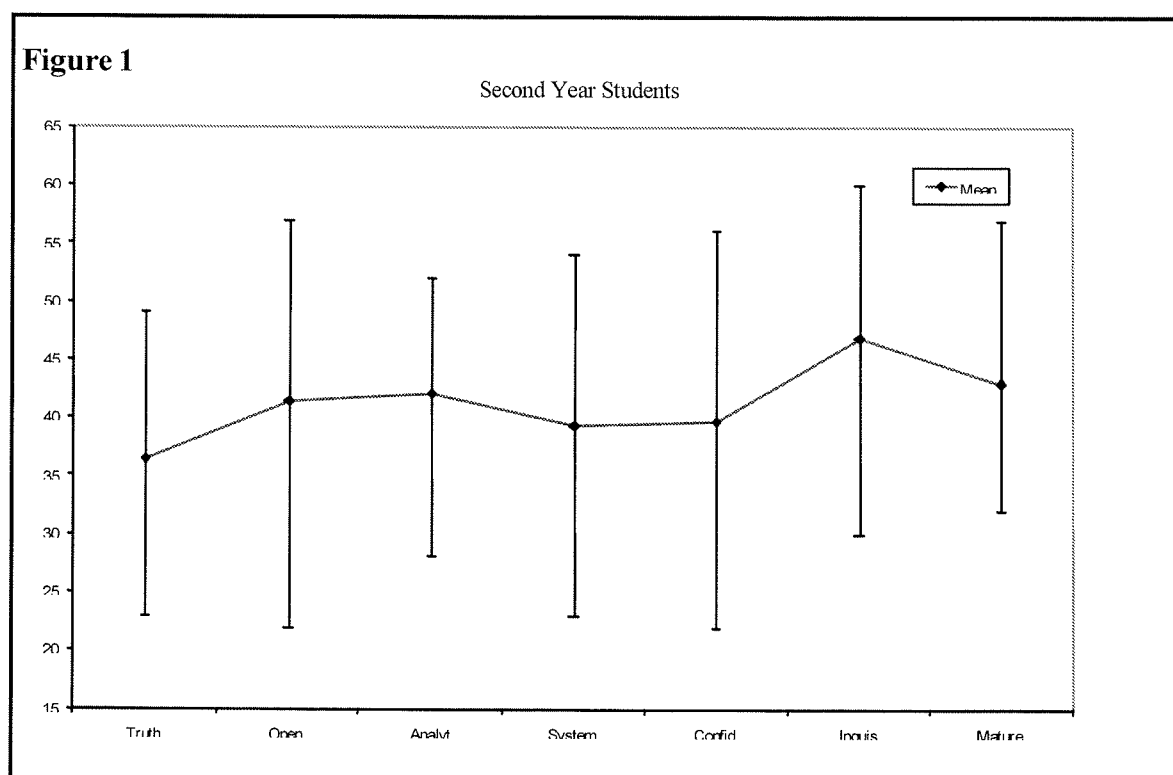
Figure 1. Critical Thinking Disposition of second year nursing students

Critical Thinking Disposition Scale	Mean (n= 44)	Standard Deviation
Truth	36.04	6.17
Open-mindedness	41.43	7.22
Analyticity	42.11	5.46
Systematicity	39.38	7.21
CT, Self-confidence	39.75	7.94
Inquisitiveness	46.72	6.55
Maturity	43.04	5.80

Table 1. Mean scores and standard deviations

Facione et al. (1996) report that in their studies of college students in the USA the scores on truth-seeking are frequently "disappointingly ambivalent". They suggest that this indicates that while students may not be hostile towards inquiry, they may be afraid to pursue open inquiry in situations where the findings become personally challenging (Facione et al., 1994). The Systematicity scale relates to the disposition toward organised, orderly, focused and diligent inquiry; and the CT, Self-confidence scale relates to the person's confidence to trust their own reasoning and judgements (Facione et al., 1996). The results suggest that this cohort of students, while generally disposed to thinking critically, are not likely to pursue inquiry into areas or matters that make them personally uncomfortable. They are disinclined to pursue inquiry in an orderly, focused or diligent way, and are not entirely confident about the conclusions that they may draw. These findings have implications for both theoretical and clinical learning.

QUALITATIVE RESPONSES

In summary, the major kind of response to the word "nursing" was that of adjectives describing personal attributes. "Caring" was the most common word recorded. Activities such as "helping" and "assisting" were also common. "Caring" appeared again most commonly in the question which asked the students to describe the qualities of the ideal nurse. "Friendly", "understanding", and "good listener" were also popular, as were "knowledgeable", "efficient", and "good skills". There was little difference in the kinds of responses given across the three age groups for these first two questions.

Response to the third question indicated a general recognition of interdependence in the relationships between nurses and other health professionals. There was, however, a tendency in the younger cohort to see nurses as "not as important", and few within this group noted responses which indicated

that the roles were considered to be interdependent. The older cohort, however, responded quite strongly with terms describing independence. These included "advocate" and "challenger".

The media was identified as the main influence on the students' perception of nursing. Personal experience was more influential in the older age group, and the experience of others was noted as an influence on those of the younger age group. Students in general believed that a questioning attitude would be an advantage to a nurse. This was related to enhanced knowledge and client outcomes. Some concerns were expressed that too many questions might undermine the nurse's authority or influence the client's trust in the doctor. Some students noted that "nurses are not doctors". Further investigation is required to establish the significance of this statement.

DISCUSSION

Students encounter the critical thinking paradigm (predominantly) at university and the traditional paradigm (predominantly) when on clinical practice. Reflection on the literature in relation to critical thinking and critical theory in the nursing literature, led each member of the research group to more clearly identify inconsistencies held within their own personal paradigm. We concluded that as academics we are caught between the two paradigms. While we may believe in and verbalise the critical thinking paradigm, we may adopt traditional role expectations and, indeed, unknowingly foster these behaviours in the students because of our traditional preparation as nurses. Exploration of these conflicts to identify where inconsistent messages may be being sent to students through dissonance between our words and actions in both on-campus and off-campus teaching, is an ongoing necessity.

A problem confronting both students and academics is that of the tension between the academic socialisation of the students, and the traditional

socialisation in the workplace. Students, during their off-campus clinical learning experience, rapidly become aware of the opposing socialisation. One way of supporting students is to highlight the influences the traditional paradigm has on nurses' work, roles, and relationships within the health system. Support systems must be initiated to encourage students to challenge the assumptions of the traditional paradigm as both a students and novice professionals.

Another major challenge that the adoption of the critical thinking paradigm presents to the predominantly female profession of nursing, is the need to identify and challenge the assumptions and values which underpin and inform our own construction of ourselves as women. This means that adoption of the critical thinking paradigm becomes not only a professional challenge but a personal challenge as well. This is a challenge which presents itself to both the researchers and the researched. Young (1994) points out that the internalisation of the values of passivity, obedience, dependence, and nurturing are integral to the socialisation of most women. The societal sanctions against deviation from feminine roles, and the internalised guilt that many women feel in response to deviations from the feminine role, is perpetuated in the professional sphere. Inclusion of feminine consciousness raising and the development of assertiveness and conflict resolution skills into the curriculum, are seen as a means of addressing these issues.

The critical thinking paradigm constructs students as actively engaged in their own learning (Rane-Szostak & Robertson, 1996). It is considered that this will foster self-confidence and promote lifelong learning, whereas the traditional paradigm constructs students as passive recipients of the teacher's knowledge. This is consistent with the dependent, subservient mould. Teaching styles and methods in both theoretical and practical aspects of nursing were reviewed with the aim to develop teaching methods which would avoid prescriptive learning and promote an environment which encouraged active learning. In this way, the students would be able to develop their own understanding of, and relationship between, both the theoretical and practical aspects of nursing.

As a means to promote active learning, lectures were renamed 'resource sessions', and the focus changed from straightforward presentation of information to critical consideration of health care and care practices. In the area of practical learning, the sessions previously known as 'laboratories' became known as 'workshops', and the focus again changed from teacher-directed learning to student-directed learning – with the use of workbooks to guide and provide students with questions for their consideration. The emphasis in the workbooks was to promote students' understanding of the principles of practice, and then to generate their own understanding of how these principles may be put into practice, rather than following a 'recipe' or learning an 'only way' of performing the procedure.

The changes in the organisation of the clinical learning in particular, produced a great deal of anxiety and discontent among the students. The students repeatedly expressed concern that we were not teaching them the 'right' way to perform the procedure, and that the workbooks and self-directed learning sessions (SDL) did not give them sufficient direction. Workshop facilitators were being frequently asked to demonstrate the procedures. Anxiety was particularly focused on the Objective Structured Clinical Evaluations (OSCE) where students were asked to act out clinical scenarios and were assessed on their performance.

Bearing in mind that this cohort of students, as indicated via the CCTDI results, were disinclined to pursue inquiry in an orderly, focused, or diligent way, and were not entirely confident about conclusions drawn from self-directed learning situations. Knowing this, a safer learning environment was developed as a means to promote the student independence in learning, and confidence in their ability to draw their own conclusions. To reduce the anxiety associated with the OSCE, and promote self-confidence, students were offered the opportunity to practice the OSCEs format prior to the examination. In these sessions the students were provided with sample assessment sheets and were able to practice and assess each other, with an academic available for consultation. This meant that students were given the opportunity to view the assessment format and develop a level of comfort with the OSCE experience and, indeed with their own ability.

CONCLUSION

The action research project set out to develop a teaching and learning environment which would develop the critical thinking abilities of second year Bachelor of Health (Nursing) students. This teaching and learning environment sought to promote active engagement in both theoretical and clinical learning. Stimulation of the students' thinking and problem solving abilities in clinical learning was promoted in an effort to avoid prescriptive or 'recipe' learning of procedures.

Three requirements to promote the development of critical thinking abilities in students, and to support

them to challenge the assumptions of the traditional paradigm, were identified. These were:

- the need for facilitators of learning to examine their relationship to the traditional and critical paradigms, and the need to recognize and challenge the assumptions and values which inform our construction of ourselves as women (in a predominantly female cohort of students and teaching staff);

- recognition of the tension between the academic socialisation of the students, the students perceptions and beliefs about nursing, and the traditional socialisation that occurs while learning in clinical areas, and provision of assertiveness and conflict resolution workshops in the nursing curriculum;

- provision of a 'safe' learning and assessment environment to minimise students' assessment anxiety while maintaining safe practice and assessment integrity.

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