

Impact of clinical placement location on nursing students competence and preparedness for practice

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Abstract

The challenges confronting nurses in today's health care environments have highlighted the necessity for graduating students to feel both competent and prepared for practice. The aim of the aspect of the study reported in this article was to determine the relationship between the location of clinical placements and competence and preparedness for practice from the perspective of the nursing students. A quasi-experimental design using a pre-test post-test survey was used. The population consisted of all final year Bachelor of Nursing students at Queensland University of Technology, who undertook their clinical placement in either a rural or metropolitan location. The response rate was 65% in the pretest (n=137) and 57% in the posttest (n=121). The results of the study highlight the importance of both rural and metropolitan clinical environments in developing not only student competency but also students' satisfaction with their clinical experience. The results suggest that the selection of a rural placement is more likely to occur when students feel competent, confident and organised about their clinical experience. Strategies to increase students' perceptions of competence and confidence to undertake a rural placement are likely to increase students' selection to 'go rural'.

Keywords: Clinical placements; Rural nursing; Competence; Confidence

Introduction and background

The challenges confronting nurses in today's rapidly changing health care environments have highlighted the necessity for graduating students to feel both competent and prepared for practice. This necessity has in turn highlighted the increasing significance of the nature and quality of student clinical learning experiences (Adams, 2002; Chan, 2002; Cope et al., 2000; Dunn et al., 2000; Zhang et al., 2001). As graduates, students will be required to have adequate knowledge and skills and to be able to transform competencies into effective performance (Zhang et al., 2001). It is during their clinical placement that students are expected to develop the relevant knowledge, skills and competence (Chan, 2002), to develop their capacity for "knowing how" as well as for "knowing that" (Cope et al., 2000; Dunn et al., 2000) and to expand their perceptions of their future role as a registered nurse.

The purpose therefore of planned clinical experience is to enable students to develop clinical skills, integrate theory with practice, apply problem solving skills, develop interpersonal skills and become socialised into the formal and informal norms, protocols and expectations of the nursing profession and the health care system (Conway and McMillan, 2000; Hutchings and Sanders, 2001; Jackson and Mannix, 2001). A recent national study conducted in Australia (Clare et al., 2002) found that nursing students and health care staff both desire clinical placements which provide students with quality learning experiences that meet the growing demands placed upon graduates on completion of their studies.

In addition graduates are expected to demonstrate all the attributes of caring considered essential by the relevant nursing authority (e.g., Australian Nursing Council Inc.). These experiences cannot be successfully simulated in a laboratory setting (Boxer and Kluge, 2000). Grealish and Carroll (1998) note that clinical education is expensive, with implications for both the teaching and health service areas. However, it is widely regarded as essential to the successful preparation of registered nurses (Ajiboye, 2000; Conway and McMillan, 2000; Tolhurst and Bonner, 2000; Williams et al., 2001). Furthermore, there is considerable evidence that undergraduate nursing programs are successful at achieving their aims and despite the diverse, complex and changing face of health care, registered nurses are well prepared for beginning practice (Bartlett et al., 2000; Boxer and Kluge, 2000; Clare et al., 2002; Commonwealth of Australia, 2002; Edmond, 2001).

Importance of clinical placements

In a review of the literature, Chun-Heung and French (1997) found that the clinical education setting is the most influential in the development of nursing skills, knowledge and professional socialisation; stressing the importance of the learning climate within the clinical education environment. These authors, who focused on the perceptions of students, noted that a supportive clinical environment is of the greatest importance in optimising the teaching and learning process. This view is supported by Calpin-Davies (2003), who indicates that a nurturing and supportive environment can be created when the divergent but compatible organisational aims of the service and educational sectors are merged in a climate that encourages collaborative learning, trust and mutual respect.

Clearly, clinical placement environments not only play an important role in the development of students' competency but also students' confidence, organisational skills and preparedness for practice. In addition, the clinical environment will influence students' satisfaction with their placements and the degree to which their experiences are regarded as positive. There has been recognition of the influence that individual ward or unit environments have on students' experiences and career intentions (Clare et al., 2002). However, little is known about the impact that the location of the clinical placement has on students' competence, confidence and satisfaction. The location of a clinical placement site (e.g., rural vs. metropolitan) is likely to influence a number of factors (e.g., support, resources, staff skill mix, type and number of patient case load). As providers of nurse education are continually seeking more clinical placement sites, it is important to examine the influence of the clinical location on the students' experiences.

Clinical education settings

The majority of nurse education in Australia takes place in major cities with practical clinical experience primarily gained in large metropolitan hospitals (Bell et al., 1997; Bramadat et al., 1996; Hegney, 1996). Such circumstances are noteworthy in light of research findings suggesting that graduates are more likely to seek employment in areas where they have had previous positive experiences (Talbot and Ward, 2000). The concentration of clinical placements within large metropolitan hospitals holds particular significance in terms of the transferability of competencies into new situations and the recruitment and retention of nurses in other contexts. One such context includes the rural and remote areas.

The shortage of health professionals in rural and remote areas is well documented. Moreover, numerous authors have lamented the inadequate preparation of nursing graduates for rural practice. Indeed, the findings of a recent national Australian survey of nurses working in rural settings strongly suggest that undergraduate nursing curricula include few, if any, aspects of rural health (Stephenson et al., 1999). The national survey revealed that only 21% of the respondents (n=1397) had received any educational preparation for rural practice; a mere eight percent of the respondents had pre-employment fieldwork experience in a rural setting; and a little less than five percent had completed undergraduate units on rural health (Stephenson et al., 1999). Inadequate preparation for nursing in rural areas has also been reported in the literature from Canada and the USA (Bramadat et al., 1996; McDonough et al., 1992).

Given the inadequate preparation of nursing graduates for rural practice together with the concentration of clinical placements within large metropolitan hospitals, it would not be unexpected that most graduates have little understanding of rural issues and generally do not choose rural nursing as a career option. However, research findings indicate that rural placement programs improve the clinical skills necessary for rural work (Barney et al., 1998; McAllister et al., 1998); increase appreciation of the variety of experiences offered in rural practice (Talbot and Ward, 2000); and increase awareness of the multiple opportunities to practice clinical skills during rural placements (Peach and Bath, 2000). By undertaking rural placements, nursing students – especially those with no prior experience of a rural lifestyle – could be expected to gain an appreciation of the rural practice environment as well as the employment options available in these settings. Moreover, this strategy should also facilitate the gaining of knowledge and the variety of skills required to practice effectively in a rural environment.

The seriousness of the rural health situation has prompted professional and government bodies to call for strategies to increase recruitment and retention of nurses, doctors and allied health professionals to these regions (Healthy Horizons, 1999; Queensland Health, 1999). One strategy suggested is to provide students with the opportunity to attend undergraduate placements in rural or remote areas (Hays et al., 1993). The School of Nursing at Queensland University of Technology (QUT) put this strategy into effect by introducing a program that offered students the choice of a rural or metropolitan clinical placement during their final year of Bachelor of Nursing studies. Implementation of the program was followed by a research project designed to provide a detailed evaluation of the impact a rural placement has on preparedness for rural practice, employment intentions and its effectiveness as a recruitment strategy. Our study found that: students who had previously lived or worked in rural

areas were more likely to choose a rural location for clinical placement; family, financial and employment commitments influenced students' willingness to undertake a rural placement; and that rural placements increased awareness of employment opportunities (Smith et al., 2001). In addition, our study found that rural placements positively influenced nursing students' intentions to seek employment in rural areas (Courtney et al., 2002). These findings have been supported by another Australian study (Neill and Taylor, 2002). To date, the data from our study have focused on the factors influencing the selection of a rural placement and future career intentions. This paper, however, reports on another aspect of this larger study, namely the impact of rural or metropolitan clinical placement on nursing students' competence and preparedness for practice.

Purpose

The purpose of the element of the study reported in this article was to examine the impact of clinical placement location (rural or metropolitan) on nursing students' clinical experience. The specific aims were to:

1. Examine changes in students' satisfaction with, and competence, confidence and organisation for clinical practice prior to and following a final year clinical practicum (across time).
2. Examine differences in satisfaction, competence, confidence and organisation between students who completed their clinical practicum in a rural area and those who completed the practicum in a metropolitan area (between groups).
3. Identify factors that contribute to a positive clinical experience.

Method

Design

A quasi-experimental, pre-post test design was used for the study. As the location of the clinical placement was self-selected by the students a full experimental design was not possible.

Sample

The population consisted of all final year Bachelor of Nursing students at QUT who were enrolled in the relevant clinical unit (N=212). The unit required the students to undertake a four week clinical placement. One hundred and thirty-seven students completed the pre-test survey which was distributed during a briefing session prior to the commencement of the clinical practicum. This was a 65% response rate. Thirty of the students (22%) had selected a rural location for their clinical practicum. One hundred and twenty-one students completed the post-test survey, resulting in a final response rate of 57%.

Measures

The pre- and post-survey questionnaires comprised three sections. The first section requested demographic information. The second section contained questions related to the students' preparedness for the clinical experience and issues that were important for them during the clinical experience. The final section contained a series of questions related to the students' satisfaction with their clinical placements and factors likely to influence their future career plans. The data reported in this article relate to the students' preparedness for, and satisfaction with, their clinical experience.

In relation to the clinical experience, students were asked to rate how confident, competent and organised they felt prior to (pre-test) and following (post-test) the clinical practicum. These three items were each measured on a Likert scale, from 1 (strongly disagree) to 5 (strongly agree). For the satisfaction item, students were asked to rate their satisfaction with clinical experience from 1 (not at all satisfied) to 5 (extremely satisfied). In relation to issues about the clinical experience perceived to be important by students, 12 items were identified from the literature review and feedback obtained from students as part of clinical de-briefing sessions. The items involved issues about the venue (diversity of experience, resources, support, access), the experience (feeling in control, feeling part of a team, feeling valued) and personal issues (maintaining work and family commitments and financial costs). Students were asked to rate each of the 12 items on a scale from 1 (not at all important) to 5 (extremely important).

Following the development of the questionnaire by the research team, a steering committee were consulted about the appropriateness, relevance and readability of the questionnaire. This steering committee comprised representatives of professional groups relevant to clinical placements in rural and metropolitan hospitals (e.g., rural Directors of Nursing, Australian Rural Nurses).

Procedure

Ethical approval was obtained from the relevant ethics committee. Pre-test questionnaires and consent forms were distributed to students during a prebriefing session held at the university one week prior to the commencement of the clinical practicum. Students were informed of the voluntary nature of the study and assured of confidentiality and anonymity. To enable matching of pre- and post-test data, students were asked to generate their own identification code using a combination of their parents' initials. Students completed and returned the questionnaire during the session. A second questionnaire was given to students when they returned to the university following their clinical experience. Again, the questionnaire was distributed and collected during a lecture held at the university.

Results

Demographic data

Almost half the participants (49%) were aged between 19 and 23 years, 31% were aged 24–34 years and 20% were aged over 35 years. The majority of students were studying full time (94%) and 77% were committed to >8 h/week paid employment (including 33% working >16 h/week). Forty percent of the rural clinical placement students and 31% of the metropolitan placement students had some previous nursing experience, the majority as enrolled nurses or nursing assistants. Around two-thirds (60%) of the rural clinical placement students and 37% of the metropolitan placement students had lived previously in a rural community. Approximately one-third (37%) of rural clinical placement students and 20% of metropolitan placement students had worked previously in a rural community.

Confidence, competence and organisational skills

Before commencing the clinical practicum, students rated themselves as moderately confident (mean=3.65, SD=.93), competent (mean=3.54, SD=.86) and organised (mean=3.65, SD=.93) (see Table 1). To examine differences between location

(metropolitan vs. rural) and changes across time (pre-clinical vs. post-clinical), a two-way repeated measures ANOVA was conducted. The between subjects factor was location and the within subjects factor was time. The two-way ANOVA was conducted for students' ratings on confidence, competence and organisational skills.

Table 1. Means and standard deviations for students' ratings on confidence, competence and organisation prior to, and following, clinical experience

	All students (<i>n</i> = 137)	Rural (<i>n</i> = 30)	Metropolitan (<i>n</i> = 107)
<i>Pre-clinical</i>			
Confidence	3.65(.93)	3.97(.81)	3.56(.96)
Competence	3.54(.86)	3.73(.87)	3.48(.85)
Organisation	3.65(.93)	3.90(.88)	3.57(.93)
<i>Post-clinical</i>			
Confidence	3.81(.78)	4.04(.59)	3.74(.81)
Competence	3.79(.67)	4.04(.44)	3.72(.71)
Organisation	3.86(.60)	4.08(.47)	3.79(.61)

There was no significant interaction for location and time for confidence ($F_{2,245}=1.19$, $p>.05$), competence ($F_{2,245}=0.08$, $p>.05$), or organisation ($F_{2,245}=0.05$, $p>.05$). In relation to the main effect for time, only students' ratings of competence ($F_{2,245}=5.47$, $p<.05$) were significantly different between pre-clinical and post-clinical. In relation to the main effect for location, students' ratings on all three variables were significantly different between groups: confidence ($F_{2,245}=7.25$, $p<.01$); competence ($F_{2,245}=6.06$, $p<.05$); and organisation ($F_{2,245}=6.60$, $p<.05$).

These results indicate that all students, regardless of the location of their clinical practicum, reported greater competence following their clinical experience. In addition, the rural students, regardless of time (e.g., pre- or post-clinical) reported greater confidence, competence and organisational skills.

Positive clinical placement experiences

Students were asked prior to, and following their clinical practicum, to rate how satisfied they had been with their previous clinical experiences. Again, a two-way repeated measures ANOVA was conducted to examine differences in location and across time. There was no significant interaction for location and time ($F_{1,245}=1.27$, $p>.05$) or for the main effect for location ($F_{1,245}=1.98$, $p>.05$). However, there was a significant main effect for time ($F_{1,245}=3.66$, $p=.05$). These results indicate that all students, regardless of location, rated their satisfaction with clinical experiences higher following their recent clinical practicum (pre-clinical MEAN=3.95; post-clinical MEAN=4.33).

In the pre-clinical survey, students were asked to rate the importance of 12 selected issues related to their clinical experiences. Both rural and metropolitan students identified the following issues as the four most important aspects contributing to positive clinical learning experiences (in order of importance):

- Support for learning (mean=4.68).
- Feeling part of the clinical team (mean=4.56).

- Feeling valued for their contribution to patient care and (mean=4.55).
- Obtaining diversity of clinical experience (mean=4.26).

Following clinical placement, students identified the same four issues with the ratings almost unchanged in order of importance. The four least important issues rated by both rural and metropolitan students prior to, and following, their clinical experience were (in order of decreasing importance):

- Having experienced registered nurses working with you (mean=3.64).
- Support for costs associated with rural placements (mean=3.43).
- Appropriate accommodation (mean=3.25).
- Availability of public transport (mean=2.96).

These findings indicate that positive experiences for students are more likely to be related to their actual clinical experience and how valued and supported they felt rather than the physical aspects of a placement. Interestingly, the rural and metropolitan students rated the importance of the 12 issues similarly.

Discussion

The selected location of the student's clinical experience was clearly important to their experience. Whether prior to or following their clinical placement, the rural students rated themselves as more confident, competent and organised than metropolitan students. This finding suggests that students who selected a rural placement were already feeling confident and competent about the forthcoming clinical practice. This is not surprising given that the rural students in this study were more likely to have lived and worked in a rural area and to have had more previous nursing experience than the metropolitan students (Smith et al., 2001) and that the process to undertake the rural placement involved self-selection. These previous experiences may have given the rural students the skills and confidence to consider undertaking a rural placement. While the self-selection process has its limits, the finding highlights the importance and benefits of encouraging students to undertake rural experiences. However, if certain levels of confidence and competence are needed before a student will select a rural placement, it may be difficult to get students to select a rural placement. Strategies may need to be developed to give students some 'rural experience' prior to selecting clinical placements. Strategies could include greater interaction between students and rural communities such as video conferences, 'rural' chat rooms and email discussion groups. By increasing the contact and interaction with rural communities and nurses who work in them, students may develop enough confidence to select a rural placement.

The higher levels of confidence and competence reported by the rural students may also be related to the perception of rural nursing as a speciality that requires high levels of competence, confidence and initiative (Huntley, 1995; Wood, 1998). It has been found that students who lack clinical confidence are reluctant to accept rural clinical placements because of the perception that rural nursing requires a wide variety of skills and independence (McDonough et al., 1992). Again, prior contact with rural nurses may help students to understand that they do have adequate skills for

a rural placement and that support and assistance will be available. Students in the current project had access to an information database which contained information about clinical venues and 'off duty' activities. Rural health care professionals often ensured the students were part of the social community as well as the professional community and saw the opportunity of students being 'in town' as a social and professional investment.

In relation to changes following the clinical experience, regardless of location, all students (i.e., rural and metropolitan students) reported being more competent and satisfied. This indicates that the students developed their skills and care practices during the experience and consequently were satisfied with the practicum. The importance of clinical experience for competence and skill development has been reported in the literature (Chan, 2002; Chun-Heung and French, 1997; Dunn et al., 2000) and therefore this study confirms the importance of clinical experience for ongoing student development. It is also of interest that the competence and satisfaction of both groups improved, suggesting that in both metropolitan and rural contexts the students gained appropriate and satisfactory experience. This indicates that for final year students there should be no hesitation about rural placements not enabling students to develop relevant skills and competence. Interestingly, there was not a concurrent improvement in confidence or organisational skills. This suggests that more time on clinical may be required before competence has an impact on feelings of confidence and organisational ability. Longer periods of clinical practice may be required to develop these aspects.

The study also confirmed the elements of clinical that contribute most to a positive learning environment for students. Consistent with other research (Calpin-Davies, 2003; Clare et al., 2002), these elements are related to the support students obtain for their learning and being part of a team and being valued. The findings strongly suggest which aspects of health care agencies foster not only the development of students' competencies but also students' perceptions of their self-worth and value. In the interests of student competency and confidence, it is vital that stakeholders in clinical education ensure that clinical locations not only recognise these issues but also have the relevant structures in place to support learning, to include students as a valued member of the health team and to provide opportunities for diverse experiences.

While the students in this study reported that family, financial and employment commitments influenced their willingness to undertake a rural placement (Smith et al., 2001), the students also believed that issues such as cost, transport and accommodation were of little importance to the actual clinical experience. Again, this suggests that certain background factors are more important to the student's ability to even consider a rural placement.

Conclusion

The aim of this aspect of our larger study was to examine the relationship between clinical placements and competence and preparedness for practice from the perspective of the nursing students. Analysis of data collected revealed that all students reported greater competence and satisfaction following their clinical placement and that rural students reported greater competence, confidence and organisational skills than metropolitan students. The results highlight the importance

of both metropolitan and rural placements in developing student competency. In addition, the results confirm the need for clinical placements to have the relevant structures to support learning, to ensure students feel valued members of the clinical team, and to provide opportunities for diverse clinical experiences. Finally, in relation to rural placements the study suggests that more efforts need to be targeted prior to the time when students are given the opportunity to select a rural placement. Strategies to increase students' perceptions of competence and preparation for clinical is likely to increase their willingness to 'go rural'. Encouraging students to do this will help to meet two major challenges: the need to prepare graduates able to meet the shortfall of health professionals in rural areas and; and the need to provide a greater range of clinical opportunities for nursing students.

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