Rural and Remote Health
MEDLINE listed
ARHEN
FRAME
ISSN 1445-6354
The International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy

PROJECT REPORT

Transfer of learning to the nursing clinical practice setting

C Maginnis, L Croxon

Charles Sturt University, Dubbo, New South Wales, Australia

Submitted: *9 September 2009;* ***Revised:*** *19 February 2010;* ***Published:*** *8 April 2010*

Maginnis C, Croxon L

Transfer of learning to the nursing clinical practice setting
Rural and Remote Health **10: 1313. (Online), 2010**

Available from: http://www.rrh.org.au

ABSTRACT

Introduction: The aim of this project was to identify if there is a link between what nursing students learn in simulated clinical laboratory sessions and what they experience during their clinical placements. Clinical laboratories are commonly used to assist students to develop clinical nursing skills through simulation of clinical experiences. Issue: Little research has been conducted into the effectiveness of clinical laboratory sessions for nursing students and whether these sessions play a role in linking theory to practice. The intent is to determine if the clinical laboratory sessions assisted students to integrate theory and practice in the rural nursing setting.

Method: The participants were a cohort of first year undergraduate Bachelor of Nursing students at a rural campus of an Australian regional inland university during a first year clinical placement in small rural hospitals. The mixed methods utilised included a questionnaire survey and semi-structured interviews undertaken with nine first year nursing students. Questions asked related to the students' perceptions of what they were taught in the clinical laboratory sessions and what they experienced during clinical placements.

Results: The results reinforced the need to utilise a combination of lecture and clinical laboratory sessions while highlighting the necessity for clinical placement and 'hands on' experience. Discrepancies and differences were recognised in the area of documentation and in the practice of some skills.

Conclusion: Parity between what is taught and what is experienced is imperative to ensure safe practice in nursing students.

Key words: Australia, clinical laboratories, clinical placement, linking theory and practice, nursing.

Introduction

Clinical placement is an essential element of undergraduate nursing programs. Clinical laboratories are a commonly used teaching strategy to assist students to develop clinical nursing skills prior to attending compulsory clinical placements. When students embark on their first clinical placements, they may experience dissonance between the academic ideal of expected nursing practice and the reality of the clinical setting[1]. This study aimed to examine the effectiveness for student learning, and the linking of clinical practice with laboratory classes, at a small rural campus in a regional area of the state of New South Wales, Australia, and also whether the laboratory classes actually play a part in linking theory to practice.

What is known about nursing student learning in clinical laboratory sessions and their experience during clinical placements can be classified into three main areas. Clinical laboratories are commonly used to teach nursing students to develop clinical nursing skills; there is a lack of research linking the use and effectiveness of clinical laboratory sessions to clinical practice; and students' perceptions of the link between skills taught at university and those used in clinical practice are important in ensuring that students are adequately prepared for clinical placements and that consistency exists to ensure safe practice.

Literature review

A review of the literature was undertaken through a search of specific nursing data bases that included Cinahl, Ebscohost, Ovid and education databases, with the timeframe limited from 2000 to 2009. The is limited literature relating to clinical laboratories, the relationship between clinical laboratories and the reality of clinical practice, the students' perceptions of these areas, and the perception of a theory–practice gap. Key words included theory-practice gap, cognitive dissonance and clinical practice, nursing students' perceptions and clinical placement.

There has long been a broad acceptance of the concept of a theory–practice gap in undergraduate nurse education programs, with assertions that students are unable to transfer their university acquired knowledge to the clinical setting, or that they are inadequately prepared for clinical placements by the university[2]. This can be deemed 'cognitive dissonance' whereby the academic ideal of nursing taught in the tertiary sector clashes with the reality of clinical practice. Cognitive dissonance provides an explanation for the responses of students to the conflict they may encounter as they engage the academic ideal with the clinical reality, the theory–practice gap[1,3].

Clinical laboratories are a commonly utilised teaching strategy to assist nursing students in developing clinical skills[4]. Wellard, Woolf and Gleeson[4] further identify that the activities taught in these laboratories are imperative for students to learn and practise. Freeth and Fry[5] describe clinical laboratories as providing a setting in which students experience reduced anxiety and increased proficiency as feedback is provided in a nurturing environment.

In a previous article by Croxon and Maginnis[6] that examined the preparation of nursing students for the reality of the clinical setting, the results reinforced the need for clinical laboratories and theory, as well as clinical placement and the 'hands on' experience this medium provides. Inconsistencies in documentation and interacting with patients were identified between clinical laboratory and what was practised in the clinical setting. Other discrepancies students identified included a need to increase the amount of simulation with the skills practised, and that learning on mannequins is vastly different from a 'real person'. Overall the students in this project 'strongly supported the view that the clinical laboratory classes prepared them for practice in the clinical setting'[6].

There is no doubt that clinical laboratory sessions allow experiential learning to occur, by undertaking activities and practising 'genuine' nursing[7]. Clinical education is an

'integral and essential component' and 'actual exposure to nursing in its various settings is essential… to the development of competence at the beginning practice level'[8]. Morgan[9] found that students' comments supported the role of clinical skills laboratory classes as being essential in preparing them for practice and enabling them to link what they had learnt to the activities in clinical practice.

Clinical placement can be a frightening experience for a nursing student. Generally students encounter an environment that is unfamiliar to them. Morgan[10] explains that this apprehension is due to a fear of harming patients. The fear factor motivates students to practise clinical skills, thus becoming proficient in them. This in turn increases the students' confidence and they become more certain of their role.

It is essential that educators reiterate the theoretical component of programs while teaching practical procedures in a clinical skills laboratory. This can be achieved by utilising a variety of teaching aids and strategies, such as demonstrations with appropriate clinical scenario equipment/props, role play, video/DVDs, case studies and question sessions. These educational strategies all assist students to integrate theory into practice.

Method

The clinical subject from which participants were purposively sampled consisted of a lecture and clinical laboratory sessions. The clinical laboratory is set up to simulate a hospital ward with simulated mannequins and equipment. These were enhanced by a compulsory 2 week clinical placement consisting of 40 hours spent in a community setting and 40 hours spent in a rural or base hospital.

A mixed methodological model was utilised in this project to enhance the collection of qualitative and quantitative data. Phenomenology was applied to the open-ended questions to interpret students' perceptions and their lived experience of usage of the clinical laboratory and its relevance to assisting the integration of clinical and theory[11-13].

The final sample consisted of nine of the potential 14 participants (64%), attending a rural campus of a regional university. Participants had recently completed their compulsory clinical placement for a specific first year subject that incorporated a clinical placement and were thus able to reflect on their experience while it was recent. The subject chosen was the second clinical subject the participants had been enrolled in and this enhanced the knowledge and skills already acquired. This subject aimed to further develop knowledge and skills to implement nursing assessment and nursing interventions at a beginning level, and to further develop skill in nursing practice. These skills are applicable to both community and hospital settings. The application of this knowledge is facilitated in the clinical laboratory and during the clinical placement. Each participant was given an information sheet discussing the project and a consent form prior to their interview. The sample was a purposive sample because the researchers required a specific cohort of participants from the identified clinical subject. Participants could then share their experiences and perceptions[11].

Data collection occurred according to 2 distinct methods: a survey and a semi-structured interview. The survey included six questions based on an ordinal scale whereby students responded using a five-point Likert scale. The categories ranged from 'strongly agree' (score 1) to 'strongly disagree' (score 5). One of the Likert questions included a list of 21 clinical skills taught in the clinical laboratory sessions.

Semi-structured interviews were undertaken with the nine first year students who voluntarily agreed to participate in the study. The questionnaire consisted of 6 questions and a general comments question and was incorporated into the interview with all questions being completed by all participants. The interviews were of 15-30 min duration. Questions related to the students' perceptions of the skills taught in the simulated laboratory classes and the skills practised while on their first clinical placement at an acute

base hospital or in a regional community setting. Due to a dependant relationship between the participants and the researchers and the need to ensure no potential or actual power relationship ensued, a research assistant was employed to recruit, interview, record and transcribe the data verbatim.

Ethics approval was granted by the Charles Sturt University Human Ethics Committee. Each participant was fully informed of the project and voluntarily completed the questionnaire and interview. Confidentiality and anonymity were guaranteed because no identification was included in the completed questionnaire and any identification from the interviews was deleted when they were transcribed. Permission was granted by the participants to record the interviews.

Results

The respondents represented 64% of the students enrolled in the clinical subject on the designated campus. Overall the participants indicated that they had been adequately prepared in clinical laboratory sessions for clinical practice. No differences were identified by students between clinical placement in the community or the hospital setting. There was a strong association between the practices of psychomotor skills in the clinical laboratory and what was practised in the clinical settings. Of the respondents, 100% indicated that they were adequately prepared to use skills such as wound assessment, aseptic technique, removal of sutures, pain assessment and transfer of patients. In all, 90% of the respondents stated that they were adequately prepared to use skills such as moving patients, assessing patients, oxygen saturations, preparation for theatre, post-operative observations, wound drains, fluid balance charting and taking observations. Some students stated that they were adequately prepared but that differences occurred in clinical practice due to registered nurse preferences, such as with aseptic technique practices.

Discrepancies were recognised by 60% of the respondents who stated that they were not adequately prepared to use skills such as neurovascular assessment, Glasgow coma scale assessment, substance use and withdrawal assessment tools and mini-mental assessments. In all, 30–60% of the respondents stated that they were not adequately prepared for clinical practice use of skills such as handover and report writing, and these areas were not rated highly. These areas required application to a person and the presence of abnormalities in interpreting results were difficult to simulate in a laboratory setting. Students found that it was different relating to a patient, compared with their practice on each other in the clinical laboratory. They also found that the emotional aspect of care was lacking in the clinical laboratory. Washing a mannequin was different to washing an actual patient due to the personal interaction involved, and this is hard to simulate/reproduce in a laboratory setting. The dissonance was identified as being the actual setting, as in the classroom and clinical laboratory as opposed to the hospital.

The sample size was too small to apply statistical analysis tools. Rather, analysis was undertaken by determination of percentages and common themes in the responses. Differences between the community and acute care placements were not identified.

Insightful comments from one respondent highlights the dissonance in clinical practice in relating the academic ideal to the practice reality.

> *On numerous occasions on clinical placement I had nurses say this is not the way you should be doing it, for instance moving patients, they would do it the quickest way and always say 'don't watch us do this' or 'this is not what's supposed to happen', it wasn't that what I was taught as uni was incorrect, it was just that a lot of the people don't really follow that.*
>
> *Yeah, they do it differently but they know it's incorrect, so if there was an argument about what's best practice, it was just more, this is the way we do it in the real world. But at the same time they were very*

vocal in saying you should follow the best practice that they're teaching at uni. So they're doing one thing and saying another.

Overall, the discrepancies identified by students were minor and had no adverse effect on them or their placement. This is reinforced by the following comments:

I'd have to say that most of the stuff that we learned was just enhanced when we went out into the clinical setting…I didn't find that there were any major discrepancies.

No what we got told was pretty much what happened in the wards.

Discussion

The transition from the theoretical setting to the clinical practice site is commonly a time of apprehension for nursing students, particularly on their first placement. Benner[14] asserts that novices have no experience with scenarios that they encounter in the clinical setting and so have a lack of understanding of how to apply what they have learnt to the real situations that arise. Clinical laboratories offer simulated situations and activities that allow students to consolidate their knowledge, skills and problem solving strategies in a controlled and safe environment that reflects the clinical setting before they face the reality of clinical practice.

The nursing laboratory is a common teaching strategy to equip students with the psychomotor skills that are necessary for the care of patients in clinical practice. Nursing laboratory classes enable small group learning in a safe and supported learning environment. This environment affords students the opportunity to work together in co-operation and develop communication and problem solving skills[14]. Morgan[9] examined how student nurses experienced their first practice placement, concluding that clinical laboratories provided a safe environment for learning the communication and interpersonal skills, and psychomotor skills necessary to nursing. Penman and Oliver[15] refer to the need for tertiary institutions and service areas to collaborate to increase the learning opportunities for students. The clinical laboratory is one strategy where collaboration can occur through simulation and the opportunity to practise skills.

Limitations

Due to a small sample size and the location at one campus, the study design is limited, as is generalisability and replicability.

Lessons learned

This study reinforces the use of clinical laboratories as an effective teaching strategy to prepare students, while highlighting inconsistencies between what is taught and what is practised. Student perceptions reinforce that the laboratory component for this clinical subject are both relevant and current to nursing practice. The students learn skills in the clinical laboratory setting that are further developed in clinical practice, such as charting and documentation. This study identifies that students' perceptions are insightful and identify gaps between clinical laboratory simulated skills and what occurs in the reality of the clinical setting. Further research needs to be undertaken to best advise what skills require greater focus, and how best to teach these skills in clinical laboratories prior to commencing clinical placements.

Students did identify links between what they learnt in simulated clinical laboratory sessions and what they practised during their clinical placements. The insights provided by the students identified a need for enhanced simulation and the necessity to ensure particular skills are presented in a more realistic manner. Researching students' reflections on clinical experience highlights strengths and weaknesses in their education and allows for a more collaborative approach between theory and practice.

Conclusion

This study can inform use of clinical simulation in clinical laboratories and examines whether inconsistency between theory and practice does in fact exist, as well as whether there are gaps in curriculum design. The concept of parity and consistency between what is taught and what is experienced is imperative in ensuring safe practice in beginning nursing practitioners. Articulation about the use of clinical laboratories and their effectiveness will lead to improved learning experiences both in the clinical laboratory and the practice setting.

Acknowledgements

The researchers acknowledge the seed grant provided by The Education for Practice Institute, Charles Sturt University that supported this research.

References

1. Meyer T, Xu Y. Academic and clinical dissonance in nursing education: are we guilty of failure to rescue. *Nurse Educator* 2005; **30(2):** 76-79.

2. Maben J Latter S Clark J. The theory-practice gap; impact of professional -bureaucratic work conflict on newly-qualified nurses. *Journal of Advanced Nursing* 2006; **55(4):** 465-477.

3. Festiger L. *A theory of cognitive dissonance*. Evanston IL Stanford: University Press, 1962.

4. Wellard S Woolf R Gleeson L. Exploring the use of clinical laboratory in undergraduate nursing programs in regional Australia. *International Journal of Nursing Education Scholarship* **4(1)**. (Online) 2007. Available: http://www.bepress.com/ijnes/vol4/iss1/art4 (Accessed 8 February 2007).

5. Freeth D Fry H. Nursing students' and tutors' perceptions of learning and teaching in a clinical skills centre. *Nurse Education Today* 2005; **25:** 272-282.

6. Croxon L Maginnis C. *Are we preparing nursing students for the reality of the clinical practice setting?* (Online) 2007. Available: http://www.unisa.edu.au/health/about/teaching.asp (Accessed 3 February 2009).

7. Ohrling K Hallberg I. Student nurses' lived experience of preceptorship. Part 2 - the preceptor-preceptee relationship. *International Journal of Nursing Studies* 2000; **37:** 25-36.

8. Higher Education Group, Department of Education, Science and Training. *National review of nursing education. Nursing education and graduates - Part 2*. Commonwealth of Australia. (Online) 2002. Available: http://www.dest.gov.au/archive/highered/nursing/pubs/nursing_ed_part2/default.htm (Accessed 13 April 2005).

9. Morgan R. Using clinical skills laboratories to promote theory-practice integration during the first practice placement: an Irish perspective. *Journal of Clinical Nursing* 2006; **15(2):** 155-161.

10. Morgan R. Giving students the confidence to take part. *Nursing Times* 2002; **98(35):** 36-37.

11. Chapman R, Orb A. Coping strategies in clinical practice: the nursing students' lived experience. *Contemporary Nurse* 2001; **11:** 95-102.

12. Roberts K, Taylor, B. *Nursing research processes: an Australian perspective*. Melbourne: Nelson ITP, 1998.

13. Benner P (Ed.). *Interpretative phenomenology. Embodiment, caring and ethics in health and illness*. London: Sage, 1994.

14. Benner P. *From novice to expert: excellence and power in clinical nursing practice*. Menlo Park, CA: Addison Wesley, 2001.

15. Penman J, Oliver M. *Meeting the challenges of assessing clinical placement venues in a bachelor of nursing program.* (Online) 2004. Available: http://jutlp.uow.edu.au/2004_v01_i02/penman002.html (Accessed1 November 2005).

