

# Students' Perception of the Psycho-Social Clinical Learning Environment: An Evaluation of Placement Models

Amanda Henderson<sup>a</sup>, Michelle Twentyman<sup>b</sup>, Alison Heel<sup>b</sup>, Belinda Lloyd<sup>c</sup>

<sup>a</sup> Nursing Practice Development Unit, Princess Alexandra Hospital, Ipswich Road, Woolloongabba, Qld 4102, Australia

<sup>b</sup> Princess Alexandra Hospital, Woolloongabba, Qld 4102, Australia

<sup>c</sup> School of Population Health, Faculty of Health Sciences, University of Queensland, Herston, Qld 4006, Australia

## Summary

Nursing is a practice-based discipline. A supportive environment has been identified as important for the transfer of learning in the clinical context. The aim of the paper was to assess undergraduate nurses' perceptions of the psychosocial characteristics of clinical learning environments within three different clinical placement models. Three hundred and eight-nine undergraduate nursing students rated their perceptions of the psycho-social learning environment using a Clinical Learning Environment Inventory. There were 16 respondents in the Preceptor model category, 269 respondents in the Facilitation model category and 114 respondents in the clinical education unit model across 25 different clinical areas in one tertiary facility. The most positive social climate was associated with the preceptor model. On all sub-scales the median score was rated higher than the two other models. When clinical education units were compared with the standard facilitation model the median score was rated higher in all of the subscales in the Clinical Learning Environment Inventory. These results suggest that while preceptoring is an effective clinical placement strategy that provides psycho-social support for students, clinical education units that are more sustainable through their placement of greater numbers of students, can provide greater psycho-social support for students than traditional models.

**Keywords:** student; nurses; clinical; placement

## Introduction

Nursing is a practice-based discipline. It is recognized in the National Review of Nursing Education that during the last two decades in Australia pre-registration nursing education has been transferred to the tertiary sector to produce a more appropriately educated, flexible and career orientated Registered Nurse (Heath, 2002).

In Australia, this separation of the tertiary and industry sector has presented challenges in relation to the organization of student placements in the clinical setting that maximise learning. To practice as competent and confident new graduate nurses, students must have developed the theoretical information on which to base their care, as well as the clinical skills needed to implement this knowledge (Dunn and Hansford, 1997).

As a practice-based profession clinical education is an essential part of undergraduate nursing curriculum. Clinical placements provide students with the opportunity to experience nursing in the real world and ideally enables students to put theory into practice (Elliot, 2002). It has been suggested that the success of the nursing program is largely reliant on the effectiveness of the clinical experience (Pearcey and Elliott, 2004).

## Literature review

Strategies for the effective supervision of students in the clinical area have gradually been modified to

meet the demand for quality learning opportunities for considerable numbers of student nurses. A positive clinical learning environment, an imperative for the success of education is largely dependant on: good co-operation of staff members in the clinical ward; good atmosphere; and student nurses included in the interactions as younger colleagues (Papp et al., 2003). Traditionally supervision of students has been undertaken through the standard facilitation model and the preceptor model. More recently collaborative models such as clinical education units (CEUs) (Richardson et al., 2000) and Dedicated Education Units (DEUs) (Edgecombe et al., 1999) have been introduced in response to the success factors identified with clinical learning (Field, 2004).

### **The facilitation model**

The facilitation model in Australia involves the allocation of one registered nurse to a group of approximately eight students who facilitates the learning experiences for these students (McKenna and Wellard, 2004). Both the facilitator and students are supernumerary and generally scattered across 3–4 wards within the hospital. Students are ‘buddied’, that is, work alongside, a registered nurse on the ward. The supernumerary registered nurse who facilitates the eight students’ learning experiences is occasionally seconded by the hospital but is often a casual university employee who may or may not be familiar with the hospital.

This model has been used for a number of years with demonstrated effectiveness in supporting students during their clinical practicum. Students placed under this model feel supported by a clinical teacher or facilitator that is dedicated to learning and the use of evidence based practice (Nehls et al., 1997). Anecdotal evidence indicates that students feel more comfortable discussing negative experiences to a clinical facilitator not associated with the hospital. Students also enjoy having a group of peers to share experiences, trials and triumphs through debriefing opportunities.

There are however, recognized limitations with a university employee in the clinical setting. Academic staff may not know the hospital or the ward routines and accordingly are not familiar with policies and procedures (Packer, 1994). With eight students to supervise, often across a number of wards, facilitators struggle geographically to meet all the students’ learning needs. Meeting the outlined clinical responsibilities and providing sufficient supervision can therefore be problematic (Perry, 1998). Students have voiced frustration that the clinical teachers are not available when needed (Nehls et al., 1997).

### **Preceptor model**

The preceptorship model has been widely used in the USA since about 1985 (Letizia and Jennrich, 1998). It has been adopted in Australia more recently to try and overcome the recognised difficulties as well as the financial constraints of the facilitation model. The preceptorship model involves allocation of one student to a ward RN, termed a ‘preceptor’. This preceptor is ideally a skilled clinician from the ward area who seeks an opportunity to facilitate student learning. The student works alongside his/her preceptor (the ward nurse) so may work weekends and night shifts.

Considerable advantages have been identified with the preceptorship model: Students feel valued because they are part of the team (Grealish and Carroll, 1998) and they believe they are taught current practice (Nehls et al., 1997). Preceptored students are more self assured and more effectively socialised into their role as a nurse (Ferguson and Calder, 1993). This, in turn, assists students to adapt to the realities of practice (Goldenberg and Iwasiw, 1993; Ouellet, 1993).

Students value the preceptor/student relationship as more of a partnership where ideas and knowledge are shared as opposed to the normal ‘teacher/student’ role (Spouse, 2001). Registered nurses who elect to take on this role often state that they enjoy teaching as it helps them to remain professionally stimulated (Grant et al., 1996). In turn students value the individualized learning that they perceive is consistent with their needs. However, with increasing acuity and work-loads in the clinical setting, it is becoming more and more difficult for nurses to take on this role in addition to their

normal responsibilities. Consequently, the clinical demand may overtake the student-preceptor relationship and thereby the learning needs of the students (Spouse, 2001). Staff burnout is also possible (Grealish and Carroll, 1998; McKenna and Wellard, 2004).

Preceptors often lack formal qualifications and can receive little or no preparation for their clinical teaching role. Often, they are chosen for their availability rather than for their appropriateness or ability to perform the role (Letizia and Jennrich, 1998; Grealish and Carroll, 1998). Whilst clinical facilitators generally have strong relationships with University faculty members enhancing ongoing communication and support, preceptors often do not share this same relationship. They can feel isolated and distanced. Constant revisions have been undertaken to the traditional facilitation and preceptor models to maximize student learning experiences. Clinical education units (CEUs) have been developed in response to the identified issues (Richardson et al., 2000).

## **The clinical education unit**

The clinical education unit (CEU) is established on those best practices identified in the literature. For example, staff that are clinically current and familiar with the environment, orientate and supervise the learning experiences of students (Baird et al., 1994). Such ownership for student learning, can often facilitate more appropriate and student centered learning experiences (Melander and Roberts, 1994). Furthermore, nurses who act as clinical supervisors in such a model feel personal and professional satisfaction. Improvements have been reported in their teaching, evaluating and preceptoring skills (Melander and Roberts, 1994).

With increasing demand for quality clinical placements this model allows clinical units to effectively supervise larger numbers of students as students join the ward team. Given the preparation and establishment of different models it is imperative that these are evaluated for their contribution to the psychosocial climate of the learning environment an important consideration in effective transfer of skills (Clarke, 2002). While there is extensive literature in the description of clinical learning situations there is little analysis undertaken of the models and their contribution to the students' psycho-social clinical learning environment.

## **Aim**

To assess undergraduate nurses' perceptions of the psychosocial characteristics of clinical learning environments within three different models of clinical placement.

## **Method**

A survey design using the Clinical Learning Environment Inventory (Chan, 2001; Chan, 2003) was used to collect the data.

## **Tool**

The Clinical Learning Environment Inventory was specifically developed to assist researchers to assess student nurses perception of the psycho-social aspects of the clinical learning environment (Chan, 2001; Chan, 2003). This tool acknowledges that learning takes place in a dynamic environment where patient care is nurses' core business. The tool identifies a number of factors, namely, individualization, innovation, involvement, personalisation and task orientation that student nurses identified as highly desirable if their learning was to be effectively facilitated (Chan, 2003). The scale descriptors are as follows (Chan, 2001; Chan, 2003):

Individualisation

Extent to which students are allowed to make decisions and are treated differentially according to ability or interest

Innovation

Extent to which clinical teacher/clinician plans new, interesting and productive ward experiences, teaching techniques, learning activities and patient allocation

Involvement

Extent to which students participate actively and attentively in hospital ward activities

Personalisation

Emphasis on opportunities for individual student to interact with clinical teacher/clinician and on concern for student's personal welfare

Task orientation

Extent to which ward activities are clear and well organized Satisfaction An outcome measure that reflects the level of students' enjoyment

There are 42 items in the scale. Six to seven items constitute each subscale. Each variable has been scored using a four point scale where 1 = "Strongly Disagree", 2 = "Disagree", 3 = "Agree" and 4 = "Strongly Agree". When scoring items for analysis negative statements were reversed; therefore the higher the score the more positive the response.

## Sample

Participants were first, second or third year under-graduate students studying a Bachelor of Nursing at a University in South East Queensland undertaking their clinical practicum at a tertiary referral facility during 2003. All participants over a seventh month period were approached to provide feed-back about the clinical placement. During this time period 679 students undertook clinical placement at the hospital and were asked to evaluate the learning environment at the completion of their clinical practicum. Periods of clinical practicum varied in length depending on the year level of the student. Generally the clinical practicum ranged between two to four weeks. The model of placement and learning environment were consistent during the clinical practicum for all students. Three hundred and eighty-nine students provided feedback which represents 52% of the total students who attended clinical practicum during the time period of the evaluation.

For the purposes of the following analyses, a full sample of 389 respondents was included. In terms of clinical placement models selected for analysis, the sample consisted of 16 respondents in the preceptor model category, 269 respondents in the facilitation model category, and 114 respondents who partook in the CEU model category. When considering the characteristics of third year nursing students only as shown in Table 3, 143 students were included in analysis, with 79 respondents in the facilitation model category and 64 respondents in the CEU category. The small numbers of students in the preceptor group was attributable to this model only being used for limited student places in certain areas of the health facility.

## Ethical considerations

The feedback was collected as part of routine quality assurance that is warranted when new initiatives are introduced into the organization. The collection of information conformed to the NHMRC (2003): Anonymity was maintained, there was no infringement of privacy, no burden was imposed on students as there was no departure from routine practice. It did not meet the criteria for requiring ethical approval from the hospital ethics committee rather approval was granted at a local level. Students were asked to provide feedback about their clinical environment through completion of the survey. No coercion for participation took place.

## Scoring of items

The items have been scored differently to the method used by Chan (2001, 2002, 2003) where item non-response was given a score of 3 on a scale of 1–5 (1 = Strongly Disagree, 2 = Disagree, 3 = No Response, 4 = Agree, 5 = Strongly Agree). This process has not been applied in the following analyses due to concerns regarding the validity of assigning non-response a valid value within an overall score. It is not necessarily appropriate to assume that non-response is due to the respondent's desire to answer an item with a response of "unsure" – respondents may have missed the item, or may not have responded due to a range of other reasons. Each variable has been scored using a four point scale where 1 = "Strongly Disagree", 2 = "Disagree", 3 = "Agree" and 4 = "Strongly Agree". Where non-response has occurred, the item was excluded.

TABLE 1. Distribution of respondents by placement model and student year

Student year	Preceptor	CEU	Facilitation
1st Year	0	0	34
2nd Year	0	50	156
3rd Year	16	64	79
Total	16	114	269

## Scales

The internal reliability of all subscales in the CLEI were calculated in the analysis as wording was modified in some items from the initial questionnaire.

Scale	Cronbach alpha coefficient
Individualisation	0.68
Student involvement	0.62
Satisfaction	0.88
Innovation	0.68
Personalisation	0.68
Task orientation	0.72

## Data analysis

Medians were calculated for each group. Kruskal-Wallis tests for each of the six scales of the Clinical Learning Environment Inventory (Chan, 2001, 2002, 2003) were undertaken for each clinical placement model, namely, preceptor, standard facilitation model and clinical education units in order to identify differences in student experiences.

## Results

The distribution of respondents by placement model and student year is displayed in Table 1. Overall median scores for each of the six sub scales are presented in Table 2. The results of Kruskal–Wallis tests for all sub scales are displayed in Table 3. Significance of association for all three clinical placement models is also recorded. Analysis has also been undertaken excluding the preceptor model of clinical placement due to the small number of respondents in this category.

Based on the data presented in Table 3, the preceptor model yielded the highest median score in terms of students' experience on all subscales; this was statistically significant (using  $p < 0.008$ ) for all subscales except individualization and innovation. It must be noted that a low number of respondents

were exposed to the preceptor model of clinical placement ( $n = 16$ ), and these results are therefore limited in the conclusions that can be drawn. In terms of just the standard facilitation model and CEUs, (that is, when the preceptor model was excluded from the analysis), students who had been placed in the CEU model had higher median scores on all sub scales, however, using  $p < 0.008$  this was only statistically significant from the standard facilitation model in the sub-scale of personalisation (Table 3).

Table 4 focuses on the relationship between student experience across the six scales and clinical placement model for third year students. These results have been included due to the significant associations found for a number of the scales. Analyses for other year levels, namely one and two, within each placement model, revealed no significant associations – and have therefore not been presented separately. When third year students were analysed separately, there were statistically significant differences (using  $p < 0.008$ ) between the standard facilitation model and the CEUs for student involvement, personalisation and satisfaction sub scales (Table 4).

TABLE 2. Overall median scores for sub scales

Scale	Median scale scores	Interquartile range	Minimum	Maximum
Individualisation ( $n = 377$ )	20.0	18.0–22.0	10.0	28.0
Student involvement ( $n = 373$ )	19.0	17.0–20.25	9.0	24.0
Satisfaction ( $n = 381$ )	25.0	22.0–27.0	7.0	28.0
Innovation ( $n = 361$ )	20.0	18.0–22.0	11.0	28.0
Personalisation ( $n = 367$ )	21.0	19.0–23.0	8.0	25.0
Task orientation ( $n = 384$ )	22.0	20.5–24.00	10.0	28.0

Note: Variations in the number of respondents for each sub-scale is due to some respondents not completing all questions.

TABLE 3. The results of Kruskal-Wallis tests for all sub scales for different placement models

Model	Individualisation	Student Involvement	Satisfaction	Innovation	Personalisation	Task orientation
Preceptor	22.46 (14)	20.00 (13)	25.18 (16)	21.63 (15)	22.69 (15)	26.87 (14)
CEU	20.42 (106)	20.21 (103)	21.04 (109)	19.98 (103)	21.08 (102)	20.94 (109)
Facilitation	18.08 (257)	17.73 (257)	17.89 (256)	17.08 (243)	17.05 (250)	18.14 (261)
<i>p</i> -value	0.078	0.006	0.003	0.024	0.001	0.003
<i>p</i> -value <sup>a</sup>	0.062	0.044	0.012	0.018	0.001	0.025

Values denote median rating. Numbers in brackets are numbers of respondents for each subscale. Note: Variations in the number of respondents for each sub-scale is due to some respondents not completing all questions.

<sup>a</sup> Preceptor model excluded from analysis.

TABLE 4. The results of Kruskal-Wallis tests for all sub scales for 3rd year students for the facilitator and CEU models

Model	Individualisation	Student involvement	Satisfaction	Innovation	Personalisation	Task orientation
Facilitation	20.51 (75)	18.44 (76)	23.20 (74)	19.87 (71)	19.78 (69)	21.71 (77)
CEU	21.02 (59)	19.73 (59)	24.80 (60)	20.65 (60)	21.57 (60)	22.48 (61)
<i>p</i> -value	0.314	0.004	0.007	0.050	0.001	0.044

Values denote median rating. Numbers in brackets are numbers of respondents for each subscale.

Note: Variations in the number of respondents for each sub-scale is due to some respondents not completing all questions.

## Discussion

The preceptor model rated high on all measures of the clinical learning environment inventory and this was statistically significant ( $p < 0.008$ ) compared to the two other models evaluated in the study

on all subscales except individualization and innovation.

In the preceptor model the student works closely with one or two highly skilled nurses and is most suitable for specialized areas with limited student capacity. Because a strong relationship of support can develop, this possibly contributes to high scores on a scale specifically designed to measure psycho-social aspects of the learning environment.

The comparison of the standard facilitation model with CEUs yielded some interesting results. Both these models are more effective than preceptorship in accommodating greater numbers of students. However, due to the numbers of different registered nurses that students work alongside during the placement they do not have the advantage of a sustained relationship which would seem to correlate positively with maximising learning opportunities.

While the preceptor model, in part, because of the specific situations it is used, is effective in creating positive learning environments, differences identified in the two other placement models, namely standard facilitation and CEUs, indicate that features of positive learning environments can be developed through other processes and structures. The data identified that in all domains evaluated (individualization, student involvement, satisfaction, innovation, personalisation and task orientation) CEUs were rated higher than the standard facilitation model, however this was only statistically significant in the area of personalisation (using  $p < 0.008$ ).

The effectiveness of the CEU model in creating positive 'personalisation' may stem from the incorporation of the students as part of the ward team. Accordingly, all ward staff are responsible for student supervision not just the staff presently 'bud-dying' a student. Students were viewed as part of ward activities rather than being 'separate' from them (Paterson, 1997). This highlights the importance of students assuming the role of younger colleagues (Papp et al., 2003).

Student involvement, personalisation and satisfaction also increased, yet, this was only statistically significant in the third year students. This maybe related to the third year students' clinical practicum where they spend longer time periods in the wards. Also, it is planned as part of the CEU model that the student returns to the same ward. This return to the ward potentially enhances their integration with the team which we are sup-posing influences the team to create and identify learning opportunities.

Findings may also be influenced by specific situations for students at different year levels. For instance, third year placements could be associated with greater motivation and commitment by students who recognize that employment opportunities in highly desirable areas are limited. This could, in part, explain the increased levels of student involvement, that is, their attentiveness and interest. Alternatively, second year students are at a different level of learning and often focus on opportunities to practice routine activities. These differing priorities may influence students' perceptions of the psycho-social learning environment and also how they interact in that environment.

## Limitations

The limitations of these results is the organizational differences in the wards where students are placed. Differences pertaining to the acuity and often perceived 'excitement' of students varies according to the type of ward and also reliant on the particular situations when students are placed. Furthermore, the significant differences identified between CEUs and the standard facilitation model need to be considered carefully as the wards that elected to become CEUs were self selected and arguably, in any case highly motivated toward student learning. Therefore, there are considerable difficulties in assuming other variables are constant. Nevertheless, the registered nurse population who the students work alongside are mostly a heterogeneous group that are spread throughout all wards in the organization. The number of respondents was high and this was greater than 50% of the total number of students undertaking their clinical placement within the organization, therefore regardless of whichever model, students would have worked with registered nurses with many different personalities and capabilities regarding facilitating student learning.

## Conclusion

The intent of studying learning environments is that improvements in teaching and learning can be informed and systematic. The key components of the more successful models would appear to relate to the consistency of staff and establishment of relationships. It needs to be acknowledged that models require to be adapted to suit particular university curricula and clinical environments. However, these results strongly indicate that, the opportunity to develop relationships at the local unit level through familiarity, and also engagement of students through incorporation as part of the team are an integral component to supporting student learning in the clinical context.

## References

- Baird, S., Bopp, A., Schofer, K., Langenberg, A., Matheis-Kraft, C., 1994. An innovative model for clinical teaching. *Nurse Educator* 19 (3), 23–25.
- Chan, D., 2001. Development of an innovative tool to assess hospital learning environments. *Nurse Education Today* 21, 624–631.
- Chan, D., 2002. Development of the clinical learning environment inventory: using the theoretical framework of learning environment studies to assess nursing students' perceptions of the hospital as a learning environment. *Journal of Nursing Education* 41 (2), 69–75.
- Chan, D., 2003. Validation of the clinical learning environment inventory. *Western Journal of Nursing Research* 25 (5), 519–532.
- Clarke, N., 2002. Job/work environment factors influencing training transfer within a human service agency: some indicative support for Baldwin and Ford's transfer climate construct. *International Journal of Transfer and Development* 6, 146–162.
- Dunn, S., Hansford, B., 1997. Undergraduate nursing students' perceptions of their clinical learning environment. *Journal of Advanced Nursing* 25, 1299–1306.
- Edgecombe, K., Wotton, K., Gonda, J., Mason, P., 1999. Dedicated education units: a new concept for clinical teaching and learning. *Contemporary Nurse* 8 (4), 166–171.
- Elliot, M., 2002. Clinical education: a challenging component of undergraduate nursing education. *Contemporary Nurse* 12 (1), 69–77.
- Ferguson, L., Calder, B., 1993. A comparison of preceptor and educator valuing of nursing student clinical performance criteria. *Journal of Nursing Education* 32 (1), 30–36.
- Field, D., 2004. Moving from novice to expert – the value of learning in clinical practice: a literature review. *Nurse Education Today* 24, 560–565.
- Goldenberg, D., Iwasiw, C., 1993. Professional socialisation of nursing students as an outcome of a senior clinical preceptorship experience. *Nurse Education Today* 13 (1), 3–15.
- Grant, E., Ives, G., Raybould, J., O'Shea, M., 1996. Clinical nurses as teachers of nursing students. *Australian Journal of Advanced Nursing* 14 (2), 24–30.
- Grealish, L., Carroll, G., 1998. Beyond preceptorship and supervision: a third clinical teaching model emerges for Australian nursing education. *Australian Journal of Advanced Nursing* 15 (2), 3–11.
- Heath, P., 2002. National Review of Nursing Education: Our Duty of Care. Commonwealth of Australia, Australia (Chair).
- Letizia, M., Jennrich, J., 1998. A review of preceptorship in undergraduate nursing education: implications for staff development. *Journal of Continuing Education in Nursing* 25 (5), 211–216.
- Melander, S., Roberts, C., 1994. Clinical teaching associate model: creating effective BSN student/faculty/staff nurse triads. *Journal of Nursing Education* 33 (9), 422–425.
- McKenna, L., Wellard, S., 2004. Discursive influences on clinical teaching in Australian undergraduate nursing programs. *Nurse Education Today* 24, 229–235.
- National Health and Medical Research Council (NHMRC) (2003). When does quality assurance in health care require independent ethical review? Advice to institutions, human research ethics committees and health professionals. AGPS, Canberra.
- Nehls, N., Rather, M., Guyette, M., 1997. The preceptor model of clinical instruction: the lived experiences of students, preceptors and faculty-of-record. *Journal of Nursing Education* 36 (5), 220–227.
- Ouellet, L., 1993. Relationship of a preceptorship experience to the views about nursing as a profession of baccalaureate nursing students. *Nurse Education Today* 13 (1), 16–23.



- Packer, J., 1994. Education for clinical practice: an alternative approach. *Journal of Nursing Education* 33 (9), 411–416.
- Papp, I., Markkanen, M., Von Bonsdorff, M., 2003. Clinical environment as a learning environment: student nurses' perceptions concerning clinical learning experiences. *Nurse Education Today* 23, 262–268.
- Paterson, B., 1997. The negotiated order of clinical teaching. *Journal of Nursing Education* 36 (5), 197–206.
- Pearcey, P., Elliott, B., 2004. Student impressions of clinical nursing. *Nurse Education Today* 24, 382–387.
- Perry, C., 1998. A community health practicum model for baccalaureate nursing students. *Home Care Provider* 3 (2), 105–110.
- Richardson, V., Fentiman, B., Nash, B., Lemcke, P., Vakkarawa, J., 2000. The clinical education unit: an enhanced learning context for undergraduate nursing students. In: *Flexible Learning for a Flexible Society, Proceedings of ASET-HERDSA 2000 Conference, Toowoomba, Qld, Australia, 2–5 July*.
- Spouse, J., 2001. Bridging theory and practice in the supervisory relationship: a sociocultural perspective. *Journal of Advanced Nursing* 33 (4), 512–522.

