

**Undergraduate Nursing Students' Perceptions of the Psychosocial
Characteristics of the Clinical Learning Environment during Their
Clinical Placements**

By

Abeer Ali Moh'd Alraja

A Thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

in partial fulfilment of the requirements of the degree of

MASTER OF NURSING

Faculty of Nursing

University of Manitoba

Winnipeg

Copyright © 2011 by Abeer Ali Moh'd Alraja

Acknowledgements

I would like to thank my thesis committee for their commitment and support. Dr Lorna Guse, my thesis advisor, for her professional guidance, support, wisdom and expertise. Dr Judith Scanlan, internal member, Dr Orest Cap, external member, and Jo-Ann Lapointe McKenzie, community member, for their broad base of expertise, constructive feedback of my work and for their interest in the topic.

Thank-you to my parents, sisters, and brothers for their encouraging words and keeping me grounded.

Thank-you to my husband Ahmad for his endless support, encouragement, love and believing in me. Thank-you to my sons Karam and Adam.

Thank-you to the MCNHR team for their help in this study.

Thank-you to my friend Mr. Mady and his wife for their support and help.

Thank-you to the students who participated in this study

Abstract

The clinical experience prepares nursing students to become competent and professional practitioners. Therefore, it is important to identify the key characteristics of a positive and constructive clinical learning environment. This cross-sectional study assessed undergraduate nursing students' (n=61; response rate of 38%) perceptions of their clinical learning environment and their suggestions to enhance it. The participants were fourth year nursing students enrolled in the Faculty of Nursing at the University of Manitoba who were doing their senior practicum (NURS 4290). Participants were invited to complete anonymously the actual and preferred versions of the Clinical Learning Environment Inventory (CLEI) (Chan, 2001). It was found that there were significant differences between students' perceptions of the actual and the preferred CLEI they desired. Participants also responded to two open-ended questions related to obstacles or things that would enhance their learning experience. Nine categories were identified that added to an understanding of the quantitative findings. The study indicated that there is still work to be done to provide a healthy clinical learning environment for nursing students and this task belongs to nursing researchers, educators, and health care organization preceptors and leaders.

Table of Content

Acknowledgements	i
Abstract	ii
Table of Content	iii
List of Tables	v
List of Figures	vi
Chapter 1: Introduction	1
Introduction	1
Statement of the Research Problem.....	1
Goal and Objectives.....	2
Assumptions	7
Significance of the Study.....	8
Summary.....	10
Chapter 2: Literature Review	11
Introduction	11
Clinical Learning in Nursing Education.....	11
Studies that Measured the Clinical Learning Environment.....	16
Preceptorship in Nursing Education.....	25
Person-Environment Fit.....	29
Summary.....	31
Chapter 3: Methodology	33
Introduction	33
Design.....	33
Sample	34
Definitions	36
Measurements.....	37
Sociodemographic characteristics	37
CLEI	38
Open-ended questions.....	39
Data Analysis.....	39
Ethical Approval.....	40

Summary.....	40
Chapter 4: Study Findings	42
Introduction	42
Sample Characteristics	42
Reliability: Clinical Learning Environment Inventory (CLEI)	44
Quantitative Findings	49
Frequency distribution of the CLEI scales items (actual and preferred)	49
Objective #1 and # 2	49
Objective #3.....	53
Qualitative Findings	55
Objective #4 and # 5	55
Summary.....	65
Chapter 5: Discussion	67
Introduction	67
Discussion of the Findings	67
Recommendations	73
Limitations.....	74
Future research	75
Conclusion.....	76
References.....	78
Appendix A.....	84
Appendix B.....	85
Appendix C.....	86
Appendix D.....	96
Appendix E.....	99
Appendix F.....	100
Appendix G.....	102
Appendix H.....	109
Appendix I.....	112

List of Tables

Table 1: Description of each scale of the CLEI	5
Table 2: Sample Demographics	44
Table 3: Internal Reliability of the CLEI Scales	47
Table 4: Mean Scores Differences between the Preferred and Actual Scales of the CLEI.....	50

List of Figures

Figure 1: The Significant Differences in Students' Perceptions of the Environment Scales
in the Two Versions of CLEI..... 54

Chapter 1: Introduction

Introduction

The purpose of this study was to investigate nursing students' perceptions of their clinical learning environment and their suggestions to enhance it. The nursing students were fourth year students in the final course of their program at the University of Manitoba, Faculty of Nursing. This chapter includes: a statement of the research problem, goal and objectives, assumptions, significance of the study, and a summary.

Statement of the Research Problem

The contribution of clinical nursing practice cannot be underestimated in an undergraduate nursing program. Nursing students practice and acquire the majority of their technical and communication skills in the clinical settings; therefore, the clinical experience prepares nursing students to become competent and professional practitioners. Undergraduate nursing programs strive to provide constructive and positive clinical experiences for their students in order to promote skill acquisition and professional development, and to gain maximum benefit from these clinical placements (Lockwood-Rayermann, 2003). In this process, nurse educators have struggled to link a professional knowledge base with experiential practice (Morgan, 2005). Creating the best fit between theory and practice is an ongoing challenge.

Among nursing educators, there is a growing awareness that the clinical nursing environment can both positively and negatively influence undergraduate nursing students' learning (Smedley & Morey, 2010). More positive experiences are found in a healthy learning environment. Research on what constitutes a healthy learning environment has been evident since the 1980s (Dunn & Burnett, 1995) but identifying and understanding

the features of a healthy clinical learning environment for undergraduate nursing students continues to challenge healthcare organizations and educators (Newton, Jolly, Ockerby, & Cross, 2010). Several studies have been conducted to identify the key characteristics of a positive and constructive clinical learning environment (Chan, 2001; Hart & Rotem, 1995; Mairis, 1992). These studies are discussed in more detail in chapter 2. Clearly, it is important to use the findings from these studies as a basis of investigating how students perceive and evaluate their learning experiences in the clinical setting.

Specific studies on clinical learning environments from the psychosocial educational perspective are few (Fisher & Camillus, 1998). In order to assess and then improve the learning environment, it is essential to use a valid and reliable tool to measure it (Massarweh, 1999). This tool has only recently become available through the work of Dominic Chan and his colleagues. Chan (2001) developed the Clinical Learning Environment Inventory (CLEI) from his research on undergraduate nursing students in Hong Kong and Australia. The CLEI asks questions about undergraduate students' preferences for learning and their actual learning experience in clinical learning environments.

The research problem for this thesis was the limited research on Canadian nursing students' perception of the clinical learning environment and the absence of using a tool such as the CLEI to measure the clinical learning environment.

Goal and Objectives

The overall goal of this study was to investigate nursing students' perceptions of their clinical learning environment and their suggestions to enhance it. These senior nursing students, in their final course, were in an intense 450 hour clinical practicum with

expectations that by the end of the placement, they could carry a 75-100% patient load expected of a Registered Nurse. The quality of their learning would be determined in part by the clinical learning environment and furthermore, the literature suggests that the role of the preceptor is a major determinant of the learning experience (Yonge & Myrick, 2007). This thesis captured the senior nursing students' evaluation of their actual learning environment in relation to their preferred learning environment. Their perceptions of ways to enhance the clinical learning environment emerged from their experiences and are valuable for future placement planning by nursing educators and their partners in practice. The senior nursing students' identification of ways in which the learning environment did not support their learning similarly provided valuable direction for future planning of placements and builds upon other research that identifies the facilitating and obstructing factors to nursing student learning (Lofmark & Wikblad, 2001).

Specifically, the objectives of the thesis were:

- 1) To explore nursing students' perceptions of the psychosocial characteristics of their actual clinical learning environment;
- 2) To explore nursing students' perceptions of the psychosocial characteristics of their preferred clinical learning environment;
- 3) To examine the differences between students' perceptions of the actual clinical learning environment and their preferred clinical learning environment;
- 4) To explore nursing students' suggestions on ways to enhance the clinical learning environment; and
- 5) To explore nursing students' comments on the ways in which the clinical learning environment did not support their learning.

To achieve the first, second, and third objectives, the Clinical Learning Environment Inventory (CLEI) was used with the permission of Dr. Chan (see Appendix A for his written permission). The 42 item CLEI consists of the “actual” version which measures undergraduate nursing students’ perception of the psychosocial characteristics of the actual learning environment, and the “preferred” version which assesses student perception of the preferred learning environment. The items in these two versions are identical. The CLEI has six scales: Personalization, Student involvement, Satisfaction, Task Orientation, Teaching Innovation and Individualization. Table 1 provides a description of each scale with one sample item. Each scale measures a specific quality of the learning experience. Internal consistency for the CLEI has been reported for the actual version (Cronbach’s alpha from .73 to .84) and the preferred version (Cronbach’s alpha from .68 to .80) (Chan, 2001). As Chan (2001) and others have done (Newton et al., 2010), numerical values were assigned to the Likert scale response categories (Strongly Agree= 5, Agree= 4, Disagree=2, and Strongly Disagree= 1, with missing values having a value of 3, whereas, negative statements were scored in the reverse manner).

Table 1

Description of Each Scale of the CLEI

Scale Name	Scale Description	Sample Item
Individualization	Extent to which students are allowed to make decisions and are treated differently according to ability or interest	12. I am generally allowed to work at my own pace.
Teaching Innovation	Extent to which preceptor plans new, interesting, and productive ward experiences, teaching techniques, learning activities, and patient allocations	5. New ideas are seldom tried out.
Student Involvement	Extent to which students participate actively and attentively in ward activities	32. I have opportunities to express opinions.
Personalisation	Emphasis on opportunities for individual student to interact with preceptor and on concern for student's personal welfare	1. The Preceptor usually considers my feelings
Task Orientation	Extent to which ward activities are clear and well organized	28. clinical tasks assigned to me are always clear
Satisfaction	Extent of enjoyment of clinical placement	3. I look forward to attending clinical placement,

To address objective #1 and #2, univariate statistics were used (mean scores for each version of each scale and the difference between the mean scores of the preferred and actual versions of each scale) to describe the nursing students' responses to the scale items. Cronbach's alpha coefficient was used to measure reliability of the CLEI with this sample of undergraduate nursing students. Each of the scales was examined individually. For objective #3, the actual and preferred versions of each scale were compared using a t-test.

For objectives # 4 and #5, open-ended questions were added at the end of the questionnaire. There were two questions. The first question was, "Thinking back, what

kinds of things would have given you a better learning experience?" The second question was, "From your experience, what were the obstacles or the things that did not support your learning in the clinical setting?" The wording of the questions was purposefully chosen to be user friendly. The responses to these questions were analyzed, seeking categories that represent the students' responses that were common to them as a group (Sandelowski, 1986).

The sample was recruited from fourth year nursing students enrolled in the Faculty of Nursing at the University of Manitoba for the academic year 2010-2011 who were doing their senior practicum (NURS 4290) in several clinical settings. Most of them had their placements in acute care hospital units designated as medical or surgical units. Each student practiced under the direct guidance and supervision of an experienced practicing nurse on their assigned unit who served as the preceptor. The students also had a faculty advisor who worked with the student and the preceptor, as needed throughout the course and more specifically and formally completed the mid-term and final evaluation of the student in consultation with the student and preceptor. The questionnaires containing the CLEI, the two open-ended items and socio-demographic questions were distributed to the students in two ways. One way was through their faculty advisor who provided a hard copy of the questionnaire near the end of the clinical placement. The other way was through the Faculty of Nursing email system that connected the students with a surveymonkey version of the questionnaire that could be completed on-line. This thesis research was approved by the Education Nursing Research Ethics Board (ENREB) of the University of Manitoba in 2010. (See appendix B for ENREB approval)

Assumptions

Undergraduate nursing programs have both a theoretical or classroom and a clinical practice component. Like most people in the field of nursing education, my assumption is that the quality of the clinical experience affects the overall quality of nursing education. My previous teaching experience as a nursing educator in Jordon led me to believe that there would be a difference between undergraduate nursing students' perceptions of actual and preferred clinical environments. Although I have no teaching experience with Canadian undergraduate nursing students, I anticipated that this study would provide information on how they perceived and described the psychosocial context of their clinical practice experience and furthermore, that these findings would be useful to nursing educators in Manitoba and Canada, and perhaps to educators in other countries.

During the thesis work, I was enrolled in the nursing administration stream of my Master of Nursing Program, and for one of my courses, I completed a practicum placement with a Winnipeg Regional Health Authority's Director of programs and patient services at a community hospital. During this experience, I observed that nurse unit managers in acute care hospitals play an important role in facilitating the learning process in the clinical settings. I believed that my thesis findings might help unit managers to learn more about undergraduate nursing students' preferred clinical learning environments and subsequently that this might lead to joint work between nursing educators and unit managers to enhance the clinical experience for future nursing students.

This study combined quantitative data that was collected by the CLEI and two open-ended questions that were added to the questionnaire. This approach would provide

pertinent and rich data on undergraduate nursing students' perceptions of actual and preferred clinical learning environments and their suggestions for change and enhancement of the learning environment.

Significance of the Study

The history of nursing education has been one where the actual site of education has moved from hospital-based programs to the higher education institutions and concomitantly, questions about the sufficiency of the clinical practice have emerged (Nolan, 1998). By investigating nursing students' experiences during clinical placement and gaining a better understanding of undergraduate nursing students' clinical learning experiences, the findings from this study will contribute to the nursing education literature. The clinical experience prepares nursing students to become competent practitioners. Students need a positive and nurturing environment that will allow them to feel confident, progress in their clinical skills and abilities, and improve their critical thinking and decision-making.

Little has been written about undergraduate nursing students' perception of the clinical settings (Glover, 2000). The Clinical Learning Environment Inventory (CLEI) is specifically designed to measure nursing students' perception of the clinical learning environment. Prior to this thesis research, the CLEI has only been used with nursing students in Hong Kong, Australia, Italy, Norway, and England. Research using the inventory had not been reported for North America. The reliability of the CLEI was assessed for this sample. The CLEI was used for the first time with Canadian nursing students. The findings of the study could provide insights compared with similar research conducted in Hong Kong, Australia, Italy, Norway, and England.

Nursing educators acknowledge the importance of the clinical environment as an important, necessary and elemental part of nursing education (Dunn & Burnett, 1995; Stokes & Kost, 2009). Consequently, nursing educators are likely to find the results of this study to be fundamentally important to their understanding of undergraduate nursing students' perception of the learning environment. The premise is that an understanding of how to create healthy learning environments more suitable for professional development could be achieved by exploring nursing students' perceptions of the psychosocial characteristics of the clinical learning environment. Moos (1975) suggested that having information about the existing environment and how it differs from an ideal environment can facilitate positive changes in the environments. Similarly, Chan (2004) insisted that for students to take full advantage of the clinical experience, it was necessary to assess the students' perception of their clinical learning environment as a basis for that process to occur. In this study, the CLEI consisting of "actual" and "preferred" versions was used to assess the senior nursing students' perceptions of their existing and ideal clinical learning environments.

Laschinger (2006) noted that nurses' work environment and replacement of the nursing workforce are priorities in nursing services research, with other areas that include: patient care, advocacy, technology, and patient safety. Nurse managers in the workplace understand the importance of teamwork and collaboration and they can facilitate the transition of nursing students to become contributing members of the work team by creating a positive learning experiences. Moreover, nursing leaders and managers can assist individuals in their units, including nursing students, to progress in their careers and be successful in their roles. The period of clinical practice is considered a period of

transition, which allows the student to combine the knowledge and clinical skills acquired during clinical experience in a working situation (Chan, 2002).

The nursing shortage remains a serious concern and a challenge for health care organizations. Therefore, enhancing student retention is an increasing concern for educational institutions across the globe (Watts, 2011). Clark and Allison-Jones (2011) identified that providing clinical sites that support student learning is one of the main challenges facing nursing education programs. Consequently, understanding what constitutes a positive clinical learning environment from the students' perspective will inform educators and leaders to develop strategic plans to improve clinical learning environment and retain nursing students.

Summary

Theoretical nursing education in the classroom is considered fundamental for preparing nursing students to enter the clinical field; however, nursing students practice and acquire the majority of their skills in the clinical settings. The clinical nursing environment can influence nursing students positively or negatively as they seek to learn and consolidate their skills and competencies. Thus, it has been important to identify the key characteristics of a healthy and productive learning environment. The overall goal of this study was to investigate Canadian nursing students' perceptions of their clinical learning environment and their suggestions on how to enhance it. The CLEI with two additional open-ended questions was used to collect the data and meet the objectives of the study. The next chapter provides a review of the literature and the conceptual model for this study.

Chapter 2: Literature Review

Introduction

In conducting the literature review for this thesis, computer searches of relevant literature were performed using CINAHL and ERIC databases. After finding relevant articles, the reference lists were then searched to further expand the quest for studies related this research. Chapter two provides a review of the literature and is organized into the following sections: clinical learning in nursing education, including the characteristics of a healthy clinical learning environment; a review of studies that have measured the clinical learning environment of undergraduate nursing students including the occurrence of reported stress and anxiety among nursing students; a discussion of preceptorship as a model of clinical nursing education; and a description of the conceptual framework of this study, the person-environment fit model.

Clinical Learning in Nursing Education

In Canada, nursing education changed from hospital-based diploma programs to university-based degree programs beginning in the 1980s (Chapman & Kirby, 2008). Prior to that time, nursing education was predominantly hospital-based education with the majority of graduates achieving a diploma in nursing. These graduates then wrote national nursing exams and upon successful completion were designated as “Registered Nurses”. Their clinical placements as students were usually in the same hospital as their education program and their employment as new nurses often was in this same hospital. For some students, their clinical education as students and their clinical practice as Registered Nurses occurred as a transition within the same hospital.

After the 1980's, most Canadian provinces aimed to adopt university-based baccalaureate degree programs in nursing as a prerequisite to writing national exams and as the entry-to-practice education requirement (Chapman & Kirby, 2008). Some variation existed across provinces. Manitoba was the second province to adopt baccalaureate education as the prerequisite to entry-to-practice in 1995. In the late 1990's, following the goals of the provincial government's Manitoba Nursing Education Strategy, the baccalaureate nursing program in the Faculty of Nursing at the University of Manitoba established a new partnership, a Joint Program with Red River College. The Joint Program meant Red River College nursing students (n=100) could receive the first three years of their program at the College and complete their fourth year at the University of Manitoba receiving their degree as university students. The University of Manitoba also maintained its four year baccalaureate nursing education program independent of the Joint Program.

Foxman (2004) suggested that the needs of a more complex and demanding health care environment lead to the shifting of nursing from a task-focused to a knowledge-based profession and the changes to the entry-to-practice requirement of achieving a baccalaureate in nursing. At the University of Manitoba, students in Faculty of Nursing programs had their clinical practice learning occur in several placements including hospitals, community settings, and long-term care centres. Their instructors in these clinical practice settings were university faculty members or were hired by the university specifically as clinical educators. The clinical learning environment for baccalaureate students was relatively more transient in location compared with diploma students in the earlier hospital-based programs.

The goal of any nursing education program is to provide a constructive and positive clinical learning experience to students that will equip them to provide safe, competent and compassionate care as students and later as Registered Nurses. How this might be achieved is often debated in the literature. For example, Chen, Brown, Groves, and Spezia (2007) suggested that personal care homes (also called nursing homes) provide a better opportunity for beginning undergraduate student nurses to learn fundamental psychomotor and communication skills compared with acute care hospitals where the acuity level may be too high for beginning learners. Clinical practice experience in hospitals and other health care settings is a major part of nursing education and one of the best descriptions of clinical teaching was made by McCabe (1985) as being “the heart of professional education”. The clinical learning environment was the place where the students interact with clients and families in order to acquire clinical skills, and they work with other health care members in order to acquire teamwork skills. In their study to develop a tool that measured the clinical learning environment, Dunn and Burnett (1995) defined the clinical learning environment as “an interactive network of forces within the clinical setting that influences students’ clinical learning outcomes” (p. 1167).

Nursing educators recognized the importance of adequately preparing students for their clinical placements. Morgan (2005) argued that this preparation can be achieved by the classroom education in which the educators teach the theoretical component of the program and then reinforce the transformation of theory into practice in the clinical setting. However, Hart and Rotem (1995) investigated the attributes of effective learning environments in clinical settings and emphasized the difference between teaching in the

classroom and the clinical setting because the clinical setting is a much more complex social context where the instructor monitors not only the needs of students but also the needs of clients and clinicians. Chan (2002) added that students are required to make difficult transitions as they move from a classroom environment that encourages “thinking” to a clinical environment that encourages “doing”. According to Chan , in classroom teaching, the students’ activities can be structured, whereas in the clinical practice setting, experiences cannot be structured to the same extent, since the patients’ conditions, expectations, and choices cannot be controlled for learning purposes. Thus, the clinical learning environment is relatively dynamic, changing, and unpredictable compared to the classroom learning environment.

Professional disciplines such as nursing require a clinical learning environment for students that will prepare them to become competent practitioners. Nursing is a practice-based profession. Therefore, the clinical experience is crucial in preparing nursing students for their professional role. Nursing education research has recognized the role of clinical learning and emphasized that nursing students should have the maximum benefits of the clinical education (Chan, 2001; Gaberson & Oermann, 2007; Nolan, 1998). Gaberson and Oermann discussed six components of a philosophy of clinical teaching. The importance of clinical teaching was the first component along with the role of the student as learner, the need for learning time before evaluation, the climate for learning, the essential versus enrichment curricula, the espoused curriculum versus curriculum in use, and the importance of quality over quantity of clinical activities. They stated that “clinical practice for nursing students is more important than what they can demonstrate in the classroom” (p. 5).

Nolan (1998) investigated how student nurses thought, acted, and reflected on their clinical experiences. She concluded that active participation of the students is fundamental for maximizing learning during clinical placements and more so that students need to feel that they are part of the health care team in order to actively participate in the learning process. Clinical settings in undergraduate nursing programs are fundamental in providing nursing students with clinical skills, improving their clinical thinking and decision making abilities, assisting the students to integrate theoretical knowledge into clinical practice, and supporting nursing students in bringing together cognitive, psychomotor, and affective skills in nursing activities with patients (Chan, 2001).

McBrien (2006) suggested that the quality of the clinical learning environment influences the student's learning process. Several researchers have attempted to define the characteristics of an effective clinical learning environment (Chan, 2002; Dolan, 2003; Gaberson & Oermann, 2007; Hart & Rotem, 1995; Saarikoski, Isoaho, Warne, & Leino-Kilpi, 2008). Chan (2002) and Saarikoski et al., (2008) both suggested that purposeful organization of learning situations with variation in care tasks was a key factor in a good clinical learning environments. In order to support learning and students' growth in the clinical settings Gaberson and Oermann (2007) stated that faculty instructors must respect students as learners and trust their motivation and commitment to the nursing profession.

To maximize the students' potential for clinical learning, clinical staff members play an important role by creating an environment in which the student feels safe to ask questions (Dolan, 2003). Several studies found that staff nurse attitudes contributed to a positive clinical learning environment by providing access to learning experiences,

servicing as resources for the development of clinical skills, acting as role models, and offering positive feedback on nursing students' effectiveness in providing quality patient care (Lewis & Deans, 1991; Palmer, Cox, Callister, Johnsen, & Matsumurs, 2005). Thus, students must feel not only adequately supported by instructors, but also accepted by clinical staff members in order to have the best possible opportunities for their clinical learning experiences. Hart and Rotem (1995) identified the peer support among students as an important aspect of a positive clinical learning environment.

In summary, the characteristics of a healthy clinical learning environment are several and varied with much emphasis on the role of the clinical staff. In healthy clinical learning environments, nursing students feel that they have been accepted as part of the team (Nolan, 1998); they experience organized and supportive learning situation with variation in care tasks (Chan, 2002; Saarikoski et al., 2008); they feel that it is safe to ask questions (Dolan, 2003); and they perceive positive clinical staff role models who provide feedback to nursing students as they learn and practice their clinical skills (Lewis & Deans, 1991; Palmer et al., 2005). Nursing students also feel respected and trusted by their faculty instructors (Gaberonn & Ooermann, 2007) and benefit from peer support in the clinical learning environment (Hart & Rotem, 1995).

Studies that Measured the Clinical Learning Environment

The components of what constitutes a constructive and positive clinical learning environment have been identified in nursing studies; however a specific tool to measure these components only recently became available. The Clinical Learning Environment Inventory (CLEI) is a recently developed quantitative tool by Chan (2001). Specifically, it measures nursing students' perceptions of their actual and preferred clinical learning

environment. It consists of six scales: Personalization, Student Involvement, Satisfaction, Task Orientation, Teaching Innovation, and Individualization. Since the development of the CLEI, a few studies have examined the nursing students' perceptions of clinical learning environment. These studies have been conducted in Italy, England, Hone Kong, Australia, and Norway.

One study set in Italy was conducted by Perli and Brugnolli (2009). Data were collected by distributing the CLEI questionnaire to 232 first, second, and third year undergraduate students in the Bachelor of Nursing Science Degree Course at the University of Verona. The response rate was 100%. (This response rate is unusually high but it is not clear from the article how recruitment and distribution of the CLEI contributed to this outcome.) Analytical procedures were univariate (frequencies of mean and median scores for actual and preferred experiences as reported by the nursing student's year in the program). Findings demonstrated that the nursing students displayed a positive perception of the learning environment and there were no differences between the nursing students' perceptions of their actual and preferred clinical environment. There was some increase in overall satisfaction across the undergraduate years with 3rd year students indicating greater satisfaction compared with second year students. In terms of the six scales, the nursing students considered Personalization (emphasis on opportunities for individual student to interact with preceptor and on concern for student's personal welfare), Student Involvement (the extent to which students participate actively and attentively in hospital ward activities) and Task Orientation (the extent to which ward activities are clear and well organized) as the most meaningful features of the learning environment. The nursing students also indicated that some clinical placements were

more beneficial for learning compared with others. Findings indicated that having a clinical teacher and/or preceptor on site was a feature of the more innovative learning environments. As a conclusion, the authors emphasized that clinical placements that promote professional development are those that actively facilitate learning through the role of clinical tutor or preceptor.

A second study in England (Midgley, 2006) was conducted with 67 nursing students in the second year of their program and in an acute care clinical practice placement. The CLEI questionnaire was used to collect the data. The results revealed a statistically significant difference between the nursing students' perceptions of the preferred and actual clinical placements. The Personalization scale (emphasis on opportunities for individual students to interact with a preceptor and concern for the student's personal welfare) mean score was high in both actual and preferred forms, indicating that these nursing students preferred and experienced more support, respect, and acknowledgment during the clinical placements. The Teaching Innovation scale (the extent to which the preceptor plans new, interesting, and productive experiences for the student) score was low in the actual form, demonstrating that from the nursing students' perspective, mentors, and clinical practitioners were not creating new, interesting, and productive activities for them. Consequently, the author suggested that mentors in the clinical placement setting require training to assist their meeting the students' educational expectations for innovative teaching strategies.

A third study by Ip and Chan (2005) was carried out in Hong Kong with 303 students enrolled in the Bachelor of Nursing Program. The results were similar to Midgley (2006) with a statistically significant difference between the nursing students'

perceptions of the preferred and actual clinical placements. The Personalization scale (emphasis on opportunities for individual students to interact with a preceptor and concern for the student's personal welfare) score was high in the actual form, but the score was higher in the preferred form, indicating that although students perceived respect, support and recognition, they needed more reinforcement in this area. The Teaching Innovation scale (the extent to which the preceptor plans new, interesting and productive experiences for the student) scored the lowest in the actual form which revealed that students did not perceive adequate innovative teaching or interesting learning experiences during clinical practice. In contrast, the Innovation scale scored the lowest in the preferred form too, which meant that students did not recognize the importance of teaching innovation in their learning in the clinical setting. Ip and Chan (2005) suggested that clinical teachers and mentors must pay more attention in facilitating nursing students' learning in the clinical environment.

In an Australian study, Henderson, Twentyman, Heel, and Lloyd (2006) compared undergraduate student nurses' (n=389) perceptions of the clinical learning environment within three different clinical placement models (the facilitation model, preceptor model, and clinical education unit). The facilitation model has one registered nurse who facilitates the learning experience for a group of eight students. The preceptor model pairs one student to one staff nurse and the student works alongside this preceptor who facilitates his/her learning. The clinical education unit model has nursing staff take group ownership for student learning. The study used the CLEI (actual version only) as the tool of data collection with undergraduate nursing students in first, second and third years. The results indicated that the preceptor model got the highest rating on all measures of the

CLEI. The authors interpreted this finding to the nature of a strong student-preceptor relationship whereby working closely together, students felt supported in their learning. They also suggested that their findings might also have been influenced by nursing students' year in their program, for example, third year students rated the clinical learning environment highly compared to more junior students. This might be because third year nursing students saw that employment opportunities in highly desirable units were limited and so their involvement and interest in the unit were at a high level.

In Norway, Brensten and Bjork (2010) used the CLEI to assess first year nursing students' perceptions of their learning environment in nursing homes and to investigate factors in the clinical learning environment that had the greatest influence on students' overall satisfaction with their clinical placement. The participants were 74 first year nursing students in a Bachelor of Nursing Program. The results indicated that the Personalization scale (emphasis on opportunities for individual students to interact with a preceptor and concern for the student's personal welfare) mean score was the highest in the actual form, whereas Teaching Innovation (the extent to which the clinical teacher/clinician plans new, interesting and productive experiences for the student) had the lowest mean score. Brensten and Bjork (2010) indicated that the high mean score of the Personalisation scale might be attributed to the supervisory system in the nursing homes which was concerned about individual orientation toward students. Based on the low mean score of the Teaching Innovation scale, they recommended that teachers and preceptors need to spend more time in creating motivating and innovative clinical experiences. Moreover, the results revealed a statistically significant association between satisfaction as an outcome variable with all of the other five scales of the CLEI, especially

in students who highly valued Teaching Innovation, Student Involvement, and Personalization.

Overall, the five studies that have used the CLEI are similar in cross-sectional design and all but Henderson et al. (2006) use both the actual and preferred versions. Sample sizes range from n=67 (Midgley, 2006) to n=389 (Henderson et al., 2006) with generally high response rates from 80% (Berntsen & Bjork, 2010) to 100% (Perli & Brugnonli, 2009). Not all studies reported a response rate. Berntsen and Bjork (2010) recruited first year nursing students while other studies recruited first, second and third year students (Henderson et al., 2006; Perli & Brugnonli, 2009). Except for Perli and Brugnonli, all the studies that used the two versions reported a significant difference between the actual and preferred versions.

There have been other studies (e.g: Chen et al., 2007; Papp, Markkanen, & Bonsdorff, 2003; Ranse & Grealish, 2007) that investigated undergraduate nursing students' perceptions of their clinical learning environment but these studies, although informative, have not used the CLEI developed by Chan. Ranse and Grealish (2007) carried out a qualitative study designed to investigate Australian nursing students' experience of the clinical learning environment in a Dedicated Education Unit (DEU) using a communities of practice framework. The DEU is similar to a clinical education unit (CEU) where nursing staff as a whole take group ownership for nursing students' learning. A sample of 25 second and third year nursing students in the Bachelor of Nursing Program at the University of Canberra participated in focus group discussions. Students shared their opinions of learning in the DEU, a newly established model of clinical education in Australia. The study found three major themes: acceptance, learning

and reciprocity, and accountability. A feeling of “acceptance” from the clinical unit team staff encouraged the students to engage in nursing work. “Learning and reciprocity” were part of peer learning in which students supported each other to strengthen their own knowledge and increase their confidence. Accountability was related to students accepting responsibility for their work and valuing this responsibility. Students also noted that not all aspects of their work in the DEU constituted a positive learning experience. The authors concluded that the DEU offers students opportunities for engagement and interaction and strategies to facilitate learning can be shared between nursing students and clinical staff.

In a study seeking to identify undergraduate student nurses’ perceptions of learning in their clinical placement, Papp et al. (2003) used unstructured interviews with 16 students in second, third, and fourth year of their program at the School of Health and Social Care of Jyväskylä Polytechnic in Finland. The nursing students were observed providing clinical care and then interviewed immediately after to reflect on the clinical experience. Four elements (appreciation, support, quality and self-direction) emerged from the qualitative analysis. “Appreciation” meant that students needed to feel that their work was appreciated by clinical staff. Second, students indicated that they needed support from the staff member as mentor and the academic teacher as facilitator of the placement. The third element of “quality” referred to the importance of both the quality of mentoring and the quality of patient care that came out of the learning experience. “Self-direction” constituted a feeling that students were responsible for their learning; in order to be self-directed, they needed to know their own strengths and limitations. The authors concluded that a positive clinical learning environment could be established through co-

operation between the academic teachers and the clinical staff. They added that the active involvement of nursing students as part of the nursing care team gave these students an opportunity to learn and to add to the body of their professional knowledge.

Chen et al. (2007) conducted a descriptive exploratory study in the United States of America (USA) with the purpose of surveying the use of nursing homes as clinical placements within baccalaureate nursing programs. The sample was 53 schools accredited by the National League for Nursing in nine south-eastern states of the USA. According to the survey, 83% of the nursing schools used nursing homes to teach fundamental psychomotor, communication and physical assessment skills to undergraduate nursing students. The authors inferred that acute care hospitals are becoming inappropriate as clinical learning environments for beginning undergraduate students because of the high acuity levels of hospitalized clients. They suggested that faculty educators and nursing home staff work to develop ways to better enhance the beginning students' clinical learning environments.

The study by Chen et al. (2007) draws attention to feelings of anxiety that may be particularly evident in beginning nursing students when the clinical learning environments are too demanding for their learning needs. That nursing students report stress and anxiety related to clinical practice is not new to nursing educators. In an early study by Beck and Srivastava (1991), undergraduate nursing students at a Canadian university School of Nursing ranked their sources of stress within the nursing program. Although it was not the most frequently cited source of stress, "atmosphere created by clinical faculty" was reported by 61% of nursing students (Beck & Srivastava, 1991). The most frequently cited source of stress was "long hours of study". More recent studies

suggest that the clinical learning environment remains a source of stress for nursing students. In a study set in Ireland, Timmins and Kaliszer (2002) reported that although financial constraints and academic related concerns emerged as the most stressful areas for undergraduate nursing students, a high percentage of nursing students reported stress associated with clinical placements (84%) and relationships with ward staff (68%). Using a tool to measure anxiety specific to various clinical experiences, Sprengel and Job (2004) identified the major sources of anxiety for beginning students in the clinical learning environment; the top two sources were “fear of making mistakes” (87 % of students) and “procedures (i.e. injections)” (80%).

Moscaritolo (2009) provided a review of the literature to inform nursing educators about strategies to reduce undergraduate student nurse anxiety. She focused on the use of humour, peer instructors and mentors, and mindfulness training as three successful strategies. Sprengel and Job (2004) emphasized peer mentoring whereby beginning undergraduate (freshmen) nursing students are mentored by senior (sophomore) nursing students with both groups reporting benefit. Both the freshmen and the sophomore nursing students reported increased confidence and comfort in practice as well as learning more about the role of nurses, responsibility, and delegation of work in the clinical learning environment (Sprengel & Job, 2004). In terms of the clinical learning environment, Timmins and Kasliszer (2002) recommend that nursing educators provide support structures for clinical areas and preceptorship programs. As indicated earlier, the preceptorship model pairs one student to one staff nurse and the student works alongside his/her preceptor who facilitates his/her learning.

Preceptorship in Nursing Education

For the thesis research, undergraduate nursing students were selected during their senior practicum placement (NURS 4290) in the final course of their program. This placement is a hybrid of the facilitation and preceptorship models. These senior students have a clinical staff nurse from their placement unit who accepts them as “their student” and a faculty member who acts as “advisor” and works with the preceptors to evaluate and determine the final grades for the students. Given the emphasis on the preceptorship model for this clinical education experience, a brief review of the literature on preceptors in nursing education is appropriate.

Nursing students gain the majority of their clinical experience in hospitals and health care institutions. In response to changes in health care and nursing education, nursing faculties are implementing innovative teaching strategies, and may use a variety of models such as the facilitation model and preceptorship in their programs. Many colleges and universities cannot offer admission to all qualified students because of the inadequate numbers of clinical instructors and decreasing availability of adequate clinical placement sites (American Association of Colleges of Nursing, 2004).

The traditional method for clinical teaching is the facilitation model where one instructor supervises a group of students. Shpritzs and O’Mara (2006) insisted that this model has disadvantages, such as lack of proper preparation of the student for the real world of nursing, insufficient time to practice complex technologies, and inadequate exposure to the complexities of the clinical setting. A way to overcome these disadvantages and the shortage of faculty instructors is with the preceptorship model. More formally defined, preceptorship is “a one-to-one contractual relationship between

student and preceptor with a set time limit delineated at the beginning of the educational experience” (Shpritz & O’Mara, 2006). Preceptorship occurs when an experienced practitioner teaches, instructs, supervises, and serves as a role model for a student or graduate nurse for a set period in a formalized program (Usher, Nolan, Reser, Owens, & Tollefson, 1999). In this model, the preceptor provides intensive, individualized learning opportunities that improve the student’s clinical competence and confidence (Gaberson & Oremann, 2007). There may or may not be a faculty instructor in attendance during these learning opportunities.

Chickerella and Lutz (1981) suggested that the advantages of a preceptorship model offset its disadvantages. They based this position from their evaluation of a program that used the preceptorship model in an acute care setting. At the end of the program, most of the students who participated in the preceptor based program accepted employment in the agency in which they had their student experiences. Freilburger (2001) indicated that preceptor programs provide students with opportunities to build trusting relationships and gain valuable insight into the real world of nursing. Moreover, preceptors help students to bridge the gaps between academia and clinical positions (Myrick & Barrett, 1994). Preceptors act as resources and supporters as they guide students to successfully perform skills and make appropriate decisions which, in turn, result in greater student confidence and self assurance (Baltimore, 2004). Guidance by preceptors and clinical teachers had a positive influence on the learning outcome, if reliable educational principles guided student supervision (Henderson et al., 2006; Saarikoski et al., 2008).

Clayton (1989) found that students who are assigned to preceptors scored higher on tests of leadership; teaching and collaboration; interpersonal relations and communication; and planning and evaluation. To avoid negative learning experiences for students during their clinical placements, Kevin (2006) emphasized the importance of clinically skilled and well-prepared preceptors. Furthermore, Billings and Halstead (2009) illustrated that well-planned orientation sessions are required to prepare the preceptors and ensure that they understand the full scope and responsibilities of their role. They suggested that these orientation sessions should provide information related to philosophical perspectives of preceptorship, expected outcomes, teaching strategies, and methods of evaluation.

On the other hand, the preceptor model does have some disadvantages. The experience requires extra time from the preceptor because of the added responsibility of having a student and the need to work with them in the learning process (Chickerella & Lutz, 1981). This will certainly be a challenge and for some it may create a hardship for the preceptor. Faculty evaluation of student performance is more difficult due to the fact that faculty do not directly observe and supervise students in the clinical setting all the time, and the process of follow up with the preceptor will be time consuming (Shpritzs & O'Mara, 2006). Preceptors are frequently selected based on their availability during the clinical placement of students, and not necessarily based on their desire to precept or their qualifications, thus undergraduate nursing students are assigned to preceptors with minimal or no preparation (Myrick & Barrett, 1994) .

In the NURS 4290 senior practicum course, students select an area of practice from a list of choices offered to them, and are assigned a faculty advisor and preceptor

from the clinical practice site. The faculty advisor is an instructor at the Faculty of Nursing, University of Manitoba who facilitates the learning experience by helping students to develop a formal plan with learning objectives that will meet the course goals. The site leader, usually the nurse manager of the unit completes a form that indicates the list of skills that are available for student learning. The faculty advisor meets regularly with the student to provide ongoing support and guidance, and most faculty advisors will meet with the preceptor prior to or early on in the clinical placement and at least two other times during the practicum. The faculty advisor completes the midterm and final evaluation of the nursing student's performance with the preceptor and in the presence of the nursing student (see Appendix C, evaluation form).

The ideal preceptor is an experienced and expert nurse who enjoys teaching and interacting with students and has volunteered to be a preceptor. As indicated earlier, sometimes the selection of a preceptor may be based on availability rather than choice. The preceptor is identified and assigned by the nurse unit manager of the clinical site. Many preceptors will have attended a one day preceptor orientation provided by the Faculty of Nursing. The preceptor's responsibilities are: providing an orientation for their student; coordinating the student's assignments; providing the student with guidance and assistance in organizing and performing nursing care and in making clinical judgments; and participating in the evaluation of the student's performance. The one day orientation session for preceptors emphasizes "role modeling", that is, an emphasis on the preceptor as a role model for the student as clinician and nursing professional. The Faculty of Nursing also provides a link on their website call "preceptor resources" that contains

evaluation forms, a preceptor handbook and a quick reference guide (see Appendix D for a copy of the quick reference guide).

Person-Environment Fit

The conceptual framework that guided this thesis research and indeed, guided Chan's development of the CLEI is the model of "person-environment fit". This model has its roots in Lewin's (1936) ecological equation, $B = f(P, E)$, that is, that human behaviour is a function of the relationship between the person and the environment. Lewin (1936) stipulated that human behaviour cannot be understood by isolating the person from his/her environment and furthermore that the characteristics of both the person and the environment and the interaction of these two characteristics that must be examined and explored for meaning. In this thesis research and in Chan's development of the CLEI, the greater emphasis is on the characteristics of the environment but the interaction piece is reflected in the development and use of two versions (actual and preferred) of the same clinical learning environment scale items. The relationship between these two versions speaks to the "fit" between what nursing students would have preferred to experience in relation to what they have actually experienced. Congruence between the two versions implies a good fit.

In writing about the use of the person-environment fit model in education and industry, Stern (1970) explored the later work of Murray (1938) and the "Need-Press Model". For this model, the need of the student or the learner is identified in relation to the "press" or demands of the learning environment. Congruence between need and press allows individuals to flourish whereas a dissonant relationship between need and press proceeds to a situation where the need and/or the press must be modified. Stern (1970)

contends that for any person, a congruent relationship between need and press produces a sense of satisfaction or fulfillment but discomfort and stress are the outcomes of dissonance between need and press (page 6).

In his development of the CLEI, Chan (2001) relied on the work of Moos (1974) whose social ecological approach to evaluating treatment environments was based on Lewin's (1936) and Murray's (1938) previous models of person-environment fit. Moos and Insel (1974) suggested that the social and psychological environment has a "personality" because it is made up of people who create a social climate or atmosphere and this atmosphere can be supportive or not supportive to the "person". Moos (1975) indicated that some social environments are more supportive than others, and the social environment has a substantial influence on the individuals functioning. As an example, Dunn and Burnett (1995) emphasized the dynamics that occur within the learning environment, for example, a ward atmosphere or attitude that values nursing students and their placement on that unit creates a good learning environment.

In developing the CLEI, Chan (2001) acknowledged the work of others and specifically cites Moos' (1974) development of the Social Climate Scales that would be used in psychiatric hospitals and correctional institutions and that provided the foundation for the Classroom Environment Scale (Moos & Trickett, 1974). Moos (1974) categorized three dimensions of all human environments: relationship (the nature and intensity of personal relationships within the environment); personal development (opportunities for self-enhancement and development of self-esteem); and system maintenance and system change (the environment possesses order and organization, clarity, control and innovation). The six scales of the CLEI and their 42 items were developed from the

literature on learning environments but Chan designates each of the six scales as being covered by one of Moos' (1974) three dimensions. The Individualization and Teaching Innovation scales cover the system maintenance and change dimension; the Satisfaction, Student Involvement and Personalization scales cover the relationship dimension; and the Task Orientation scale covers the personal development dimension.

For this thesis, the person-environment fit model is an appropriate conceptual framework for three reasons. First, the primary measurements are the six scales of the CLEI and the conceptualization and development of this tool was founded on the person-environment fit model and specifically the work of Moos (1974). Second, the concepts of fit and dissonance relate to not only separately measuring the two versions, the preferred and actual clinical learning environments (objectives #1 and #2) but also to comparing the relationship between these two versions (objective #3). Finally, nursing students are given an opportunity to not only respond to a closed-ended tool (CLEI) but also to respond individually and freely in relation to the two open-ended questions on ways to enhance their learning (objective #4) and perceived obstacles to learning (objective #5). This acknowledges the "person" in the person environment fit model. This thesis research could have investigated the perceptions of faculty advisors or preceptors or students about the learning environment but a choice was made to investigate the perceptions of the students as the central individuals in the clinical learning environment.

Summary

This chapter provided a review of the literature on clinical learning environments including a review of some of the challenges inherent faced by nursing educators in providing a constructive and healthy clinical learning experience to nursing students and

the crucial role played by the clinical staff during clinical placements of students. The CLEI developed by Chan (2001) was briefly described and several international studies that use this tool were cited, described and compared. Other studies of clinical learning environments also were described and the sources of stress for students related to clinical practice were outlined. The preceptorship model of nursing education was described generally and in relation to the senior nursing students who were participants in this thesis research. Finally, the conceptual framework, the person-environment fit model was presented with a brief history and its relevance to this thesis research was explained. The next chapter provides information on the methodology.

Chapter 3: Methodology

Introduction

This methodology chapter includes sections on design, sample, definitions, measurement and data analysis. A section on ethical approval precedes the final section, a summary of the chapter. This study combined quantitative and qualitative methods to learn more about nursing students' perceptions of their clinical learning environment.

Design

This thesis research was a cross-sectional, descriptive study that investigated the potential differences between students' perceptions of their preferred and actual psychosocial characteristics of the clinical learning environment, and their suggestions to enhance the clinical learning environment. The data were collected through the completion of the CLEI (Chan, 2001). At the end of the CLEI, two open-ended questions asked the nursing students to suggest ways to enhance the clinical learning environment by identifying things that would have given them a better learning experience and the obstacles that did not support their learning. The purpose of descriptive studies is to observe, describe, and document a phenomenon (Loiselle, Profetto-McGrath, Polit, & Beck, 2011), and in this thesis research, the phenomenon was the clinical learning environment. According to Wood and Ross-Kerr (2006), cross-sectional studies collect data at one point in time. There is a single data collection point. In this thesis research, data were collected near the end of the senior nursing students' final clinical placement in their nursing program in the Faculty of Nursing, University of Manitoba.

Sample

The sample for this study was drawn from the Bachelor of Nursing program in the University of Manitoba in Winnipeg, Manitoba. Inclusion criteria were “students who are enrolled in their final clinical course (NURS 4290) in fall 2010 or winter 2011 university terms and who are willing to participate in the study”. NURS 4290 is a full time clinical course that provides students with an intensive 450 hour clinical experience. The practicum is approximately 10-12 weeks in length. Senior practicum students are offered a list of potential placement settings and they are asked to select their preferred placement. The placement opportunities include a range of nursing practice settings including hospitals, the community, and long-term care facilities. Usually one clinical placement is available for each student although it is possible for a student to request placement in more than one setting. During the course of the practicum, nursing students may move to another setting but again, this is unusual. The intent of a single placement is to assist the student to consolidate his/her nursing skills while becoming comfortable and confident in the professional nursing role.

The model of education for the senior practicum NURS 4290 is a preceptorship model. During their senior practicum, students work under the direct guidance and supervision of experienced practicing clinical nurses who serve as their preceptors. Generally speaking, a student will be assigned to one preceptor but it is not uncommon for a student to have two preceptors. It is unusual for there to be more than two or several preceptors and again the one-to-one precepting is deemed a way to promote the student’s comfort and confidence as he/she consolidates his/her clinical skills.

Students also are assigned a faculty advisor who provides guidance and support and meets individually with the student throughout the practicum according to the student's individual needs. At the midterm and at the end of the practicum, the faculty advisor, in consultation with the preceptor, assigns a grade for the course in the presence of the student. A student who fails the course also fails to complete the nursing program and cannot graduate from the program or proceed to write the national exams to become a Registered Nurse. However, a student who fails the senior practicum course does have one opportunity to repeat the course. Students who pass their senior practicum have completed their nursing program and can proceed to write national exams. These exams are offered three times every year.

Recruitment of the sample involved a series of steps. A letter to the Dean of Nursing of the Faculty of Nursing at the University of Manitoba was sent seeking permission to access students who were enrolled in the fall 2010 and winter 2011 senior practicum course (NURS 4290) in two ways (See appendix E). Course leaders of NURS 4290 and the faculty advisors were asked to distribute an envelope containing a hard copy of the questionnaire to their students on an individual basis. Students chose to complete the hard copy and mailed or hand-delivered it to Manitoba Centre for Nursing and Health Research (MCNHR) a research unit within the Faculty of Nursing. Following approval from the Dean, the Director of the MCNHR agreed to receive hard copies and remove any identifiers before forwarding them for data entry by the investigator.

Secondly, students were recruited through the Faculty of Nursing email system that connected students to a surveymonkey version of the same questionnaire that could be completed on-line. The surveymonkey data went directly to the MCNHR where

identifiers were removed and a hard copy was made and forwarded to the investigator for data entry. For the surveymonkey recruitment, a first email letter was sent 4 weeks prior to the end of the course and provided information on the study and an invitation to participate by completing the questionnaire through the internet. The second email letter was sent two weeks prior to the end of the course, and again provided information and a second invitation to participate by completing the questionnaire on survey monkey (Emails in appendix F). For the 61 nursing students who participated in the study, 29 completed the hard copy provided by their faculty advisor and 32 completed the surveymonkey questionnaire on-line.

The recruitment process was staged through a series of requests for assistance from the Dean, to the MCNHR and to NURS 4290 course leaders and faculty advisors before the request to participate reached the senior practicum students in NURS 4290. An incentive (a draw conducted by the MCNHR for 3 coffee cards for 20\$) was offered to those students who completed the questionnaires. The process undertaken for data collection and the coffee card draw by the MCNHR ensured that participants were anonymous to the investigator.

The enrolment of students for the fall 2010 offering of NURS 4290 was 55 and 15 completed the questionnaire for a response rate of 27 %. The enrolment of students for the winter 2011 offering of NURS 4290 was 108 and 46 completed the questionnaire for a response rate of 43 %. The combined response rate was 38%.

Definitions

The following operational definitions were used in this thesis research:

1. Sociodemographics: Age, gender, campus, and type of placement.

2. **Students' Perception of the Clinical Learning Environment:** Nursing, like many other health-based disciplines, has a practice (clinical) component where the learning takes place in the clinical sites (that is, hospitals, clinics, schools, long-term care and other health care settings). This clinical experience immerses students in practice and provides them with the opportunity to learn and master skills through repeated practice with patients and clients (Edmond, 2001). This thesis research intended to measure students' perceptions of the psychosocial characteristics of their clinical learning environment.
3. **Baccalaureate Nursing Students:** Baccalaureate Nursing Students are the students who have enrolled in a four-year baccalaureate program that leads to the Bachelor of Nursing (BN) degree. The BN program consists of classroom-based theory courses and offers practice experience in a variety of clinical settings including acute care hospitals, the community, long-term care facilities and schools.

Measurements

The questionnaire (Appendix G) consisted of three parts: the sociodemographic characteristics of the sample of senior practicum nursing students; the CLEI; and the two open-ended questions.

Sociodemographic characteristics. Four sociodemographic questions were asked at the beginning of the questionnaire: age, gender, campus, and type of placement. Participants were asked to report their age (a continuous variable). Gender was categorized as male or female. Campus was categorized as Fort Garry or Red River. Type of placement categories consisted of: 1) medical-surgical units, 2) nursing homes, 3) community, or 4) other (and students will be asked to specify "other"). The

sociodemographic information was used to describe the sample and was not intended to be used analytically.

CLEI. Before the development of the CLEI, there were tools to assess the learning environment of students but none of these instruments measured the clinical learning environment from the students' perspective (Chan, 2002). As indicated in Chapter 2, Chan (2001) based the tool on the work of Moos (1974). Dr. Chan developed the tool after a thorough literature review on classroom learning environments, clinical learning environments, and discussions with experts in the field of nursing education and clinical nursing (Chan, 2001). The instrument was designed so that students answer the questions directly on the questionnaire. The CLEI consists of 42 items. The tool has two versions ("actual" and "preferred") and asks student nurses about their perception of the psychosocial characteristics of their actual learning environment and their perception of the preferred or ideal learning environment. The inventory consists of six scales: Personalization (emphasis on opportunities for individual student to interact with preceptor and on concern for student's personal welfare), Student Involvement (extent to which students participate actively and attentively in ward activities), Satisfaction (extent of enjoyment of clinical placement), Task Orientation (extent to which ward activities are clear and well organized), Teaching Innovation (extent to which preceptor plans new, interesting, and productive ward experiences, teaching techniques, learning activities, and patient allocations), and Individualization (extent to which students are allowed to make decisions and are treated differently according to ability or interest).

As others have done (e.g. Newton et al., 2010), numerical values were assigned to the response categories (Strongly Agree=5, Agree= 4, Disagree=2, and Strongly

Disagree= 1 with missing values assigned a 3, whereas, negative statements were scored in the reverse manner). Chan (2003) reported inter-item reliability (Cronbach's alpha) of .73 to .84 for the actual version and .66 to .80 for the preferred version. A copy of the questionnaire including the CLEI is contained in Appendix G.

Open-ended questions. Two open ended questions were added after the CLEI. The first question is, "Thinking back, what kinds of things would give you a better learning experience?" The second question is, "From your experience, what do you think were the obstacles or the things that did not support your learning in the clinical setting?" These questions were added to get a better understanding of the students' clinical learning experience.

Data Analysis

Sociodemographic characteristics and CLEI data were analyzed using a statistical computer program, PASW Statistics 18, which was available in the MCNHR. Sociodemographic data on age, gender, campus, and type of placement were analysed to provide a profile of the students who participated in the study. To address objectives #1 and #2, univariate statistics were used (mean scores for each version of each scale and the difference between the mean scores of the preferred and actual versions of each scale) to describe the nursing students' responses to the scale items. For the third objective "examine the differences between students' perceptions of the actual clinical learning environment and their preferred clinical learning environment", the comparison was made using a t-test.

For the fourth and fifth objectives "explore nursing students' recommendations on ways/things to enhance the clinical learning environment; and to explore nursing

students' observations on the ways/things in the clinical learning environment that did not support their learning", students' responses to the open-ended questions were analyzed to identify themes that represented the categories of students' responses (Sandelowski, 1986).

Ethical Approval

This thesis study received ethical approval from the Education Nursing Research Ethics Board (ENREB) at the University of Manitoba (October 2010). ENREB operates under the requirements of the Tri-council Policy for Research with Human Subjects (2010) and the policies of the University of Manitoba. (ENREB approval certificate in appendix B)

Summary

This chapter provided a description for the study design, sample, definitions, measurement, data analysis, and ethical approval. This study is a cross-sectional, descriptive study that investigated the potential differences between students' perceptions of their preferred and actual psychosocial characteristics of the clinical learning environment, and their suggestions to enhance the clinical learning environment. Inclusion criteria were "students who are enrolled in their final clinical course (NURS 4290) in fall 2010 or winter 2011 university terms and who are willing to participate in the study". The recruitment process was staged through a series of requests for assistance from the Dean of Nursing, the MCNHR and NURS 4290 course leaders and faculty advisors before the request to participate finally reached the senior practicum students in NURS 4290. The operational definitions and a description of the questionnaire used in

the study were provided. The data analysis plan was described followed by information on the ethical approval of the study.

Chapter 4: Study Findings

Introduction

This chapter provides a description of the study findings and places these findings in the context of the current literature and conceptual framework. The sections include: sample characteristics; reliability of the Clinical Learning Environment Inventory (CLEI); quantitative findings (for objectives #1, 2 and 3); qualitative findings (for objectives #3 and 4); and a summary of the chapter.

Sample Characteristics

The sample was derived from two offerings of NURS 4290 (September 2010 and January 2011) the senior practicum and final course in the four year program of the Faculty of Nursing, University of Manitoba. The participants were fourth year nursing students who during their senior practicum were engaged in a 450 hour intensive placement with the expectation that by the end of placement, they would be carrying 75-100% of the patient care load expected of a Registered Nurse. A total of 163 students were enrolled in the two offerings and 61 students (14 from the September group and 47 from the January group) voluntarily participated in the study, representing a 38% response rate. The response rate is one of the limitations of the study. Given that less than half of the eligible students participated, definitive conclusions as to how these 61 students' perceptions of the clinical environment were different from or similar to the majority who choose not to participate cannot be drawn.

As indicated in chapter 3, potential participants were contacted in two ways, that is, through their faculty advisors who provided an envelope containing the questionnaire and through the Manitoba Centre for Nursing and Health Research that contacted all

eligible students through their student email addresses and asked that they consider completing the online questionnaire through surveymonkey. The 61 students returned their questionnaires almost equally through the hard copy format (n=29) and the surveymonkey (n=31) on-line process. The vast majority of students completed the entire questionnaire with only 3 questionnaires having 1 to 2 missing responses. The completeness of data is a strength of the study.

Data on four sample characteristics were collected: age, gender, campus, and type of placement. The sample included 53 (86.9%) female and 8 (13.1%) male participants. The 61 participants ranged in age from 21 to 49 years with a mean of 28.8 and a standard deviation of 6.54. The participants' mean age and relatively high female percentage is similar to the mean age and female percentage reported in other studies. For example, in Smedley and Morey's (2010) study, the age of the participants ranged from 18 to 40 years and 85% were female. In the study by Perli and Brugnolli (2009), the female students were 84% of the sample. For this study and similar studies, the majority of participants are female and the age range within participants is substantial at about 20-25 years between the youngest and the oldest participant.

The Faculty of Nursing at the University of Manitoba has a Joint Program with the Nursing Department of Red River College, whereby nursing students from the college complete 3 years in the college and the fourth year is completed at university. Nursing students from the university complete all four years at the university. The university degree for both groups of students comes from the University of Manitoba. Both campuses were represented in the study as 41 (67.2%) of participants were from Fort Garry campus and 20 (32.8%) were from Red River college.

Students in NURS 4290 were assigned to a variety of clinical areas across several hospitals, long-term care facilities and community programs and agencies. Medical-surgical units of acute care hospitals provided the majority of students with their placement experiences (n=97 of the 163 students; 60%). Other clinical placements settings included: community care, critical care, mental health, palliative care, women's health, and long-term care. The majority of participants for this study had their clinical placements in medical-surgical units (n=35; 57.4%). See Table 2 for more details about the sample demographics for this study.

Table 2

Sample Demographics

Demographic	N	%
Type of placement		
Medical-Surgical	35	57.4
Community	7	11.5
Critical Care	7	11.5
Mental Health	4	6.6
Palliative Care	2	3.2
Women's Health	3	4.9
Long term Care	3	4.9
Campus		
Fort Garry	41	67.2
Red River	20	32.8
Gender		
Male	8	13.1
Female	53	86.9

Reliability: Clinical Learning Environment Inventory (CLEI)

The CLEI is a relatively new tool developed by Chan (2001). The six scales of the CLEI are reported in Chan's (2001) and other studies (Berntsen & Bjork, 2010; Henderson et al., 2006; Ip & Chan, 2005; Midgley, 2006; Perli & Brugnolli, 2009). None of the studies reported a cumulative score for the six scales of the CLEI. Chan (2001)

explained that, “In order to achieve economy in answering and processing, the CLEI was designed to have a relatively small number of reliable scales, each containing a relatively small number of items” (p.450). For this study, the internal consistency of items for the entire CLEI was calculated and Cronbach’s alpha coefficients were high for both the actual (alpha= .90) and preferred scales (alpha= .91). Similarly, a correlation matrix of the six scales of the actual version demonstrated high coefficients ranging from .31 (significant at the .01 level) for the relationship between Student Involvement and Satisfaction scales to .72 (significant at the .01 level) for the relationship between Task Orientation and Satisfaction. A correlation matrix of the six scales of the preferred version also revealed high coefficients ranging from .30 (significant at the .01 level) for the relationship between Individualization and Satisfaction scales to .74 (significant at the .01 level) for the relationship between Task Orientation and Personalization scales. Nevertheless, it is the six scales that provide meaning to the analysis and the reliability (internal consistency) of the six scales are of prime importance for this study. As in other studies, the value of this thesis research lies in the comparison of the corresponding actual and preferred versions of each scale.

As indicated earlier, in order to compare the findings from the study with the published studies’ results, items were scored, as in the original scale, 5 = Strongly Agree, 4 = Agree, 2 = Disagree, and 1 = Strongly Disagree. Negatively phrased statements were scored in the reverse manner, and omitted and invalid responses were scored 3. Cronbach’s alpha coefficients were calculated to determine reliability of each scale of the CLEI. Cronbach’s alpha coefficient is symbolized as a continuum with value from 0 to 1; zero indicates no reliability and one represents perfect reliability (Coakes & Steed, 1997).

For this study, the Cronbach's alpha coefficients for each scale of the CLEI ranged from .41 to .74 for the actual version and .48 to .77 for the preferred version (Table 3). The Student Involvement scale (extent to which students participate actively and attentively in ward activities) attained the lowest Cronbach alpha coefficients in the actual (.41) and preferred (.48) forms. The Personalization scale (emphasis on opportunities for individual student to interact with preceptor and on concern for student's personal welfare) was found to be internally consistent (Cronbach alpha coefficient of .74 for actual form and .73 for preferred form). The Satisfaction scale (extent of enjoyment of clinical placement) achieved Cronbach's alpha coefficients of .73 for actual form and .77 for preferred form. The Teaching Innovation scale (extent to which preceptors plan new, interesting, and productive ward experiences, teaching techniques, learning activities, and patient allocations) obtained Cronbach alpha coefficient of .52 for actual form and .66 for preferred form. The Individualization (extent to which students are allowed to make decisions and are treated differently according to ability or interest) Cronbach alpha coefficient were found to be .52 for actual form and .66 for preferred form. The Task Orientation scale (extent to which ward activities are clear and well organized) Cronbach alpha was found to be .67 for actual form and .68 for preferred form. If a Cronbach alpha coefficient of .60 is acceptable (Nunnally & Bernstein, 1994), then for this study, the actual and preferred scales for Personalization, Satisfaction and Task Orientation are acceptable. The actual and preferred scales of Teaching Innovation and Individualization are borderline while the actual and preferred scales for Student Involvement are unacceptable.

Table 3

Internal Reliability of the CLEI Scales

Scale	Cronbach Alpha	
	Actual	Preferred
Personalisation	.74	.73
Student involvement	.41	.48
Satisfaction	.73	.77
Task Orientation	.67	.68
Teaching innovation	.52	.66
Individualization	.52	.60

Although Chan (2003) reported acceptable Cronbach alpha coefficients (Student Involvement actual= .74 and preferred= .69), problems with reliability for the Student Involvement scale have been noted in other studies. Perli and Brugnolli (2009) reported Cronbach alpha coefficients of less than .60 for the Student Involvement, Task Orientation and Individualization scales. They suggested that because the CLEI was developed based on a homogeneous group of 2nd year students, it may not perform as well when used across different levels of students. Newton et al. (2010) conducted a factor analysis of the CLEI in Australia, and developed new factors. Their conclusion expands on Perli and Brugnolli's (2009) position by suggesting the new factors reflect the different levels of students and the heterogeneous clinical placement settings.

Another speculation as to why the Student Involvement scales (actual and preferred) seem to have problems with internal consistency can be made from this study. Taking a closer examination of the items that make up the scale (see Appendix H), while the items do reflect types of involvement, they vary from involvement with the preceptor, involvement in communication with staff and shift change and self-directed involvement

in effort and expressing opinions, and conversely wanting the shift to end. It may be that these items are disparate types of involvement that do not correlate well with each other.

A correlation matrix of the items separately for each Student Involvement version demonstrated that for the actual version, only items related to “effort” (#8, “I put effort into what I do”) and “opportunity” (#26, “I have little opportunity of handing over to the next shift”; #32, “I have opportunities to express opinions”) were statistically significant (at the .01 level). A correlation matrix for the preferred version, revealed more instances of significantly correlated items as might be expected with a slightly higher Cronbach’s alpha but there was no pattern evident, except that two items (#8, “I put effort into what I do”; #32, “I have opportunities to express opinions”) were again evident. Item #8 was statistically correlated with items # 14 and # 20 (“I can’t wait until the end of every shift”; “I pay attention to the communication among staff”). Item #32 was statistically correlated with all of the items except for item #14 (“I can’t wait until the end of every shift”).

All of this suggests that there may be cultural or social difference among nursing students from different countries that are demonstrated with these student involvement items. For this study, the items that indicate self-direction and taking opportunities seem to correlate well with each other but generally speaking not with other items. It may be that Canadian nursing students or nursing students in Manitoba are encouraged and expected to take the initiative in becoming involved and some items capture this educational or social norm better than others.

Quantitative Findings

Frequency distribution of the CLEI scales items (actual and preferred). The frequency distributions of the CLEI scale items are in Appendix H. The mean values can be understood as being within a range of 1 to 5 where 1 indicates strong disagreement with a positive statement and 5 indicates strong agreement with a positive statement. For the actual scale items, the range of mean values is from 2.62 (Student Involvement scale, “The preceptors talk rather than listen to me”) to 4.70 (Student Involvement scale, “I put effort into what I do”). This means that for these nursing students, there is high agreement that they are putting effort into what they do while there is disagreement (but not strong disagreement) that the preceptor talks rather than listens. Generally speaking, relatively lower mean values for items are found in the Student Involvement scale (actual and preferred) and in the Teaching Innovation scale (actual and preferred).

Objective #1 and # 2. The first two objectives of this study were to explore student perceptions of the psychosocial characteristics of their actual and preferred clinical learning experience using the CLEI. Keeping in mind that three of the six CLEI scales demonstrated less than the acceptable Cronbach’s alpha coefficient of .60, the mean values of all of the scales and versions still are described here.

The possible total range of scores in each CLEI version is 42 to 210. The mean score for this study is 151.87 (SD = 19.67) for the actual version and 165.93 (SD = 20.93) for the preferred version. The scores for each scale item range from one (strongly disagree) to five (strongly agree) and each scale has seven statements; hence, the maximum score for each scale is 35 (see Table 4).

Table 4

Mean Scores Differences between the Preferred and Actual Scales of the CLEI

Scale Name	Mean (Std. Deviation)		Mean difference	<i>t</i> -value	95% CI of the difference	
	Actual	Preferred			Lower	Upper
Personalisation	27.93 (4.58)	29.26 (4.47)	1.33	3.60*	.59	2.07
Student Involvement	24.69 (3.33)	26.18 (3.78)	1.49	4.36*	.81	2.18
Satisfaction	28.08 (4.76)	30.80 (4.43)	2.72	5.06*	1.64	3.39
Task Orientation	25.92 (4.06)	29.28 (3.52)	3.36	7.04*	2.41	4.32
Teaching Innovation	21.56 (3.98)	24.74 (4.68)	3.18	5.89*	2.10	4.26
Individualisation	23.69 (4.02)	25.67 (4.14)	1.98	5.36*	1.24	2.72

Note. CI = Confidence Interval

* $P < .001$

Three scales demonstrated acceptable internal consistency, the Satisfaction, Personalization and Task Orientation scales. The scale that scored highest in the actual version was Satisfaction (28.08). Satisfaction was also scored the highest in Perli and Brugnolli's (2009) study of 232 Italian nursing students, in Midgley's (2006) study of nursing students in England and in Henderson et al. (2006) study of Australian nursing students. For this study, in the preferred versions, the highest mean score was also the Satisfaction scale (30.80), and the difference between the means of 2.72 indicates that students still prefer more satisfaction than they have actually experienced. It is not surprising that nursing students' preferred clinical environment will surpass their actual experience. Chan (2003) has reported similar differences between the actual and preferred versions of the Satisfaction Scale. The finding that Satisfaction has the highest mean score for both versions is positive information for educators; it means high preference for satisfaction and high actual experience of satisfaction.

The Personalization scale demonstrated the second highest mean scores (27.98 for the actual version and 29.26 for the preferred version), with a small difference

between these mean scores (1.33). This suggests that these nursing students preferred positive opportunities to interact with their preceptor and this was very close to their actual experience. All of the items in the Personalization scale refer only to the preceptor and not to other staff members. Midgley (2006), Berntsen and Bjork (2010), and Chan and Ip, (2007) all reported relatively high mean scores for the Personalization scale compared with the other scales.

The Task Orientation scale measures the extent to which ward activities are clear and well-organized. The mean scores for the actual version of this scale were in the mid-range compared with other scales (25.92) but the preferred version's mean score was higher (29.28); the difference in mean scores was 3.36. This meant that these nursing students had higher preferences than they actually experienced in the clinical learning environment and the difference between the mean scores was the highest of all the scales. This suggests that this scale has the greatest disparity between what was preferred and what was actually experienced. Both Midgley's (2006) and Chan and Ip's (2007) findings were similar with Midgely (2006) reporting the Task Orientation actual version mean score of 23.66 and the preferred version mean score of 30.91 with a difference of means of 5.49. Ip and Chan reported the actual version mean score of 19.90 and the preferred version mean score of 25.38 with difference of means score of 5.56.

There were three scales that demonstrated unacceptable internal consistency: Teaching Innovation, Individualization and Student Involvement. The lowest score in the actual version was given to Teaching Innovation (21.56). Similarly to Chan's (2003) findings with Australian nursing students and Midgley's (2006) study of nursing students in England, the Teaching Innovation scale for this study had the lowest mean for actual

(21.56) and preferred (24.74) versions compared with all of the other scales. The difference between means was 3.18. This suggests that these nursing students have a less positive perception of their learning environment in relation to their preceptors teaching abilities although they preferred something better. The Teaching Innovation items refer directly to the preceptor's teaching and planning of innovative and interesting activities with new ideas while the negatively stated items refer to the "sameness" of tasks and activities. In fact, preceptors may have been chosen based more upon their interest and/or availability to precept and they may have minimal or no teaching preparation (Myrick & Barrett, 1994).

The Individualization scale addresses the extent to which students are allowed to make decisions and are treated differently according to ability and interest. The actual version of this scale attained the second lowest mean score of 23.69. This score is comparable with scores of other studies, such as Brensten and Bjork, (2010); Chan and Ip, (2007); and Midgely, (2006), with mean scores for the actual versions of 23.68, 21.35, and 21.70, respectively. For this study, the preferred version was 25.67 so the difference between the means was relatively small at 1.98. This suggests that these nursing students' preferences for Individualization and actual experience were relatively close compared with other scales and the low mean score for the actual version suggests that students have a less positive perception of their learning environment compared to other scales.

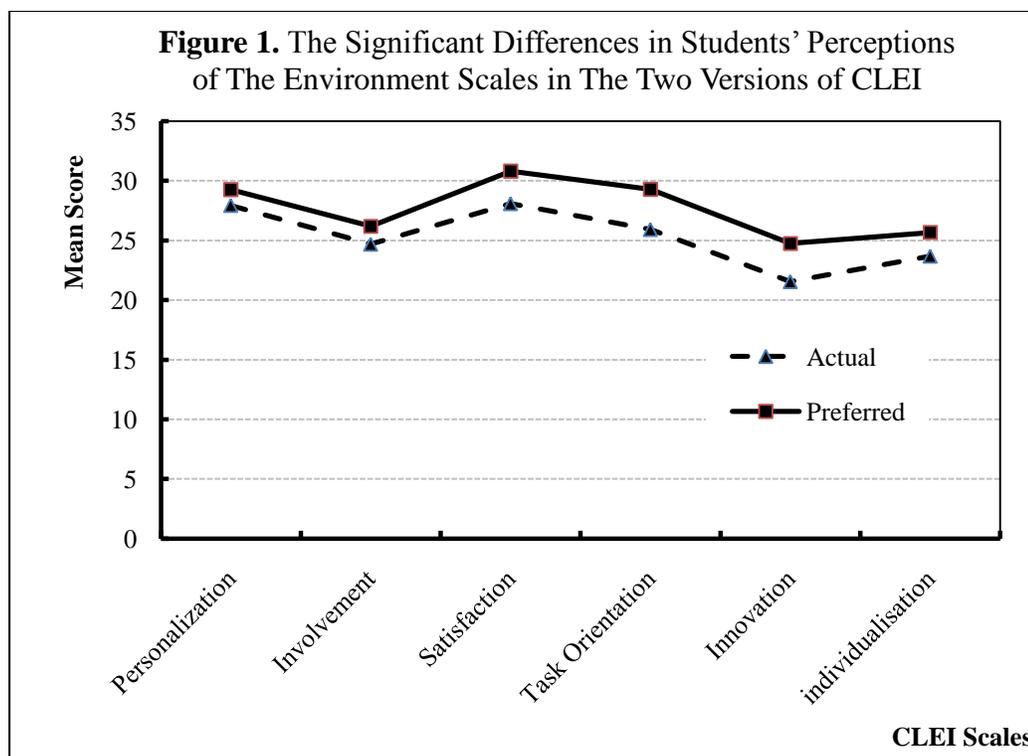
Finally, the Student Involvement scale means score were mid-range compared with the other scales. Student Involvement refers to the extent to which students participate actively and attentively in unit activities. The mean score for the actual version was 24.69 and the preferred version was 26.18 with a small difference of means of 1.49.

This means that preferred and actual experiences were close together but that the expectation of positive involvement was not as high as the other scale such as Satisfaction, Personalization and Task Orientation. Midgely (2006) and Chan and Ip, (2007) similarly reported mid-range mean scores for the Student Involvement scales compared to other scales.

Objective #3. Objective #3 addressed the comparison of the actual and preferred versions of the six scales. Data analysis was aided with a statistical computer program: PASW Statistics 18. Consultation with a statistical advisor through the Manitoba Centre for Nursing and Health Research (MCNHR) preceded the selection of appropriate statistical tests. For this study, both the nonparametric Wilcoxin test and the parametric t-test for paired samples were performed; both of them demonstrated statistically significant differences (at the level of .001) between actual and preferred CLEI scores for all of the scales. The t-test results are reported in Table 4.

The mean scores for all six scales of the preferred form were higher than the equivalent scales of the actual form, with the differences in scale means for each scale ranged from 1.33 (for personalisation) to 3.36 (for task orientation). Overall, the findings indicate that the students preferred a clinical learning environment with higher levels of Personalization, Student Involvement, Satisfaction, Task Orientation, Teaching Innovation and Individualization. However, for this study, it is important to remember that the reliability of the Student Involvement scale is suspect and unacceptable when the criterion for acceptability for Cronbach's alpha is .60. Similarly, the actual versions of Teaching Innovation and Individualization have Cronbach's alpha of less than .60. Overall, the findings from this study that mean scores for preferred versions are higher

than mean scores for actual versions are comparable with Chan's studies (2001) and the findings of other researchers who have used the CLEI. The significant differences in students' perceptions of the environment scales in the two versions of CLEI are illustrated graphically as in Figure 1.



Midgley (2006) reported t-test results in a sample of 67 nursing students in Leeds, England and like this study, the three areas of Satisfaction, Personalization and Task Orientation were identified as the most important domains in the clinical learning environment. This study identified Task Orientation and Teaching Innovation as having the greatest difference between how student nurses experienced the learning environment and how they would prefer it to be. Again, this compares well with Midgley (2006) who reported similar finding for Teaching Innovation and Task Orientation. However, it

should be noted that mean differences between scale's versions reported by Midgley (2006) were larger (from 4.47 to 9.21) compared with this study's mean difference range of 1.33 to 3.36. This indicates that the perceptions of actual and preferred clinical environment for this study's nursing students were relatively closer together compared with Midgley's (2006) sample of nursing students. This is also true for Chan's studies (2001) where the range of mean differences between actual and preferred scales was larger (2.36 to 4.29).

Chan (2001) based the development of the CLEI on the early work of Lewin (1936), Murray (1938) and Moos (1974) and on the available learning environment research literature. The emphasis on "fit" in relation to the person-environment fit model is expressed in the comparison of the actual and preferred scales. Chan's studies and the studies of others who have used the CLEI confirm that there is a lack of fit. Nursing students from Hong Kong, Australia, England and Norway have similarly indicated a lack of fit. This study of nursing students in Winnipeg, Canada has added to that literature with findings that bear out a similar lack of fit when the actual and preferred scales are compared.

Qualitative Findings

Objective #4 and # 5. Chan's (2001) first study combined quantitative and qualitative methods to test the CLEI and Midgley (2006) suggested that focus groups or interviews might help explain quantitative findings from the CLEI. This study used two open-ended questions to get a better understanding of the nursing students' clinical learning experiences. The two open-ended questions were placed at the end of the questionnaire and these were: "Thinking back, what kinds of things would give you a

better learning experience?” and “From your experience, what do you think were the obstacles or the things that did not support your learning in the clinical setting?” Initially, it was thought that these two questions would elicit different responses. However, on review of the nursing students’ responses, it became clear that these two questions were too similar to separate so that objectives #4 and #5 were analyzed and presented together. For example, some students talked about obstacles under the question about “a better learning experience”. Four students did not respond to these questions and eleven students did not respond or indicated “nothing” or “none” under the question about obstacles. However, because the remaining students usually made one or more responses to each of the questions, there were a total of 126 responses.

The responses were placed into 12 categories. Two of these categories were recommendations for changes in the four-year program and the senior practicum. These recommendations are presented later in this section. One category consisted of single items (n=14) that were either unique to the student or to the setting. A few of these items will be highlighted later in this section. This left nine categories of responses comments: generic positive comments; preceptors; time; fatigue and scheduling; variation in tasks; staff and unit environment; self-directed learning and independence; learning opportunities; and working with other staff (see Appendix I).

The first category of generic positive comments contained responses such as “I had a very positive education experience” and “I was satisfied with all aspects of the practicum”. A few students stated that they had good advisors and preceptors. These responses indicated satisfaction with the learning experience but did not provide any information on what made the learning experience positive and satisfying. It is

understandable that students who had overall satisfactory experiences might not go into detail but it would have been a welcome to hear more about the basis for their evaluation. Twelve students made 13 positive comments in this category. Interestingly, the category of generic positive comments fits with Chan's definition of the Satisfaction scale ("extent of enjoyment of clinical field placement") and reflects the high level of satisfaction reported from this study's quantitative findings from the CLEI.

The category that contained the largest number of responses was the "preceptor" category and while this category contained mostly negative comments, there were a few positive remarks, "I had a lot of support from my preceptor" and "the things that helped me with my learning experience were the flexibility my preceptor allowed in regards to how quickly I reached a full patient load". Fourteen students made 17 responses in this category. Six students commented on their experience of having two or more preceptors and all but one of them described this as a negative experience. Students identified that having more than one preceptor hampered consistency and accuracy of feedback, for example by saying, "Having several preceptors provided inconsistent feedback", and "I would also recommend having only 1 preceptor because it was difficult for them to see how I improved on regular basis". In Lofmark and Wikblad's (2001) study, nursing students emphasized that receiving feedback as a factor that facilitated their learning. Other student comments in the preceptor category related to the unclear communication, poor teaching skills and inflexible approach of the preceptor, for example, "giving me clear guidance on what my preceptor expects me to accomplish by the end of my practicum will have been... a better learning experience", "teaching didn't come natural

for her” and “my preceptor expected things to be done her way without consideration to other ways of doing things”.

It is not surprising that students might be more critical than praising of their preceptors. It is the preceptor who decides when the student should increase his/her patient load and it is the preceptor who provides the information to the advisor on the midterm and final evaluation of the student’s progress. In addition, the preceptor may have not chosen this role but instead have been persuaded or delegated to this task. Being a preceptor can be a challenge particularly the first time this happens. One student said:

“My preceptor was a relatively young nurse and I was her first practicum student. It took us awhile to figure out what would work best for both of us, but in the end it was very positive.”

One student had a preceptor whose workload increased because she agreed to be a preceptor. The student reported, “...often my preceptor was given extra work because they know she had a student, leaving little time for teaching”. When this happens, taking the role of preceptor becomes punitive and little value is placed on the time commitment to teach and guide the nursing student. The preceptor category most closely aligns with Chan’s Teaching Innovation scale and the negative responses in this category are somewhat confirmed by the finding that the Teaching Innovation scale have the lowest mean score of all the scales.

A third category was labelled “time” and 7 students each made one comment about lack of time to learn, to study and to reflect about their clinical learning. A few responses exemplify this category: “[I was] too busy to take time and think about what I was doing and why”; and “there is so much to learn in the clinical setting, it was hard to find the time to study outside of clinical”. Because many of the responses related to

clinical tasks, this category has some relationship to Chan's Task Orientation scale although it should be noted that Chan does not have an item in the scale that directly addresses the time pressures that are felt by this group of nursing students and likely by most students. Lofmark and Wikblad (2001) examined facilitating and obstructing factors for learning in clinical practice by asking students to keep a diary during their clinical practice. One example of organizational shortcomings of supervision was expressed by students who felt that the stress on the units was overwhelming and lack of time meant they had no time to talk with patients. Lofmark and Wikblad (2001) point out that while many obstacles that were identified early on by students were less evident as time progressed, stress and lack of time occurred throughout the clinical placement.

The fourth category was related to time and was labelled "fatigue and scheduling". Seven students made 8 comments. In this category, students reported feeling exhausted and overwhelmed without time to rest between shifts. The students said, "...having to work so many 8 hour shifts in a row, [I was] too exhausted to learn at my full potential", and "schedules [are] too tight, no time in between to rest enough". This reporting of fatigue and shift scheduling is also not evident in Chan's CLEI items. However, this category might be viewed as a lack of satisfaction because Chan defines the Satisfaction scale as "the extent of enjoyment of clinical field placement".

The fifth category was variation in tasks. For this category, students usually expressed the need to have more exposure and variation in the types of patients, task or skills that would promote their learning. Nine students made 10 comments. Generally speaking, students are looking for more opportunities and time for them to explore different clinical experiences and be directly involved in hands-on care. In the

quantitative findings, the Task Orientation scale demonstrated the largest mean difference between the preferred and actual versions and this is reflected in the comments provided by students in this category. One student said that what was needed was, "...more variety of clients' conditions to develop critical thinking, psychomotor, communication skills" and another student stated, "I received many patients that had different illnesses (medical and surgical) [and] I believe it was a really good learning experience..." Certainly the clinical environment is the place to learn new skills and consolidate previous skills (Chan, 2001). McBrien (2006) suggested that the purposeful organization of learning situations with variation in care tasks was a key factor in a good clinical learning environment.

The sixth category is clinical staff and unit environment. Twelve students made 14 comments. Most of the responses from students were negative (n=9) and some were positive (n=5). In terms of the latter, students commented on helpful supportive staff members who answered their questions and explained things to them. One student commented, "the staff were amazing at making me feel valued and comfortable in the clinical setting". Dolan (2003) pointed out that clinical staff members are creating a good learning environment when it is safe for students to ask questions. On the other hand, most of the comments about clinical staff and unit environment were negative and some were disturbing such as the student who said that she was "belittled" in front of her client and family by her preceptor and another who responded that there was "bullying" on the unit and "everyone talking about people behind their backs". One student reported negative experiences with staff but also seemed to put this kind of behaviour in context, saying:

“...the occasional nurses who do not work well with students. One ignored me entirely and the other was condescending. However, every work environment always has a few challenging personalities. So what can you do?”

Another student commented:

“Some nurses, not my preceptor, were very rude to me because I am a student. I don’t understand why nurses are so hostile towards students. They have forgotten what it is like to be new and learning.”

Student nurses have identified sources of stress that emanate from the clinical environment including relationships with ward staff (Timmins & Kaliszer, 2002). For the senior practicum, the vulnerability of the students may be even greater because this is their final course before graduating. It is unfortunate that some nurses did not support the students’ learning and did not recall their own past uncertainties and vulnerabilities as students. This category fits most closely with Chan’s Personalization scale defined as having the emphasis on opportunities for individual students to interact with clinical teacher or clinician and on concern for the student’s personal welfare. Clearly, most of the experiences reported by these nursing students were quite the opposite of concern for their welfare.

The seventh category was self-directed learning and independence and eight students made 12 comments. Response placed in this category reflected the students’ needs or wishes to be more independent in their practice and involved or directive in their learning. One student indicated the desire to be more directive by saying “...with input from me as to what I wanted my practicum experience to be”. Some students wanted more independence and fewer restrictions from their preceptor. For example, one student said, “...preceptor was not wanting to step back and allow me to provide care independently so that I [would be able] to see what my weaknesses were” and another

explained, “I think I would be able to get a better learning experience if I was allowed to implement my learning plan”. In general, students would have liked to be allowed to make more decisions. This fits with Papp et. al’s (2003) description of self direction as the feeling that students were responsible for their learning and in order to be self directed, they needed to know their own strengths and limitations. This category fits with Chan’s Individualization scale that addresses the extent to which students are allowed to make decisions and are treated differentially according to ability and interest. The Individualization scale had a relatively lower mean value compared with the other scales indicating less agreement with positively stated items.

The eighth category was learning opportunities and this category spoke to missed opportunities and wanting more opportunities. Comments in this category were parallel to some comments made in the category of variation of tasks. Eight students provided 9 responses. For a few students, the comments seemed to convey that there were other (non-practicum) students on the unit and that this took away learning opportunities from them. Other times, learning opportunities would not be offered or there was a lack of opportunity within the unit. One student said, “As much as having a full patient load has taught me about time management, it would sometimes require me to miss a learning experience such as watching a code blue or starting an IV for another nurse”. This category like the “time” and “variation” categories fits with Chan’s Task Orientation scale because it relates to performing tasks that the student is assigned and carries out in the context of a well-organized unit.

The ninth and final category was working or interacting with other staff and this category primarily related to two areas: wanting to learn how other nurses did things and

wanting to learn more about the roles of other members of the health care team such as physicians. Six students made 6 responses that fell into this category. Some examples of where students wanted to learn more about different ways to manage care include the following comments, “Also working with different people I could see how the same tasks were managed differently by the individuals” and “working a few more shifts with a second preceptor or another nurse to get a variety of teaching and nursing styles”.

Another student indicated wanting to know more about nurse-physician interaction:

“...probably more interaction between my preceptor and doctors. I never really saw much interaction and never really knew the doctors by their face or name.”

This category likely fits closest to the Student Involvement scale with emphasis on the extent to which students participate actively and attentively in hospital ward activities but only 2 of the 7 items relate specifically to “staff” other than the preceptor. Perhaps these nursing students were working so closely with their preceptors that they felt absent from the larger environment of the unit and the people in the unit and yet they wanted to be part of unit milieu. Nolan (1998) emphasized that nursing students want to fit in with the clinical learning environment and be part of the team. Ransie and Grelish’s (2007) findings indicated that acceptance of nursing students by the clinical staff assisted these students to engage in their nursing work.

There were 14 responses from 14 students that did not fit in any of the nine categories of 126 responses. For some responses, this was because they were ambiguous (“being placed in areas where the student was not responsible for”) or idiosyncratic to the unit (“lack of supplies”) or the student (“more day shifts”). However, two single items are believed to warrant some attention. One response to the question of what would have given a better learning experience was “meeting with other students to discuss our clinical

experiences”. The idea of peer support is mentioned in the literature as one strategy to help with stress and anxiety for students in clinical practice (Hart & Rotem, 1995; Rance & Grealish, 2007). However, this was only mentioned by one student and it may be that other students did stay in touch with each other even though they were on different units. Most units will not take more than one senior practicum student. For NURS 4290, each of the students has every other student’s email address through the course information platform. This study cannot add to what is known about peer support because there were no questions either in the CLEI or the open-ended questions to capture this information. The second single item of note was stated this way, “I felt sometimes I was there filling the gaps and doing the work of a nurse because they were so short-staffed”. Clearly, this is an unacceptable learning situation for a senior practicum student and although it appears to be rare for this group of students, it is noteworthy because it goes against nursing education principles.

Finally, there were a four recommendations made by three students directed to the four-year program, all of which involved increasing clinical hours generally or in specific clinical areas. There were also some observations and recommendations for the senior practicum. Eight students provided 12 responses. Four responses related to preceptors that emphasized the selection (or screening) of preceptors and their orientation to the role and expectations of preceptorship. One student said,

“I think that had there been a screening process into preceptors’ personalities and abilities to mentor, my experience would have been greatly increased. As well, my preceptor was not offered an opportunity to attend the preceptor workshop.”

Two responses related the role of faculty advisors, recommending that expectations be clear and that faculty advisors should meet students during their shifts and not on days off. Other recommendations seemed to be idiosyncratic to the student or the unit.

Summary

This chapter described the sample of nursing students for this study. Only four items were asked: age, gender, campus and type of placement. The majority of nursing students were female (86.9%) with a mean age of 28.8 years and approximately 2/3 were from the Fort Garry campus of the University of Manitoba and 1/3 from Red River College. The majority of nursing students had their senior practicum placement in medical-surgical units of acute care hospitals.

The CLEI developed by Chan (2001) was analyzed for internal consistency using Cronbach's alpha coefficient with a value of .60 as acceptable reliability. One of the six CLEI scales did not reach this level. Cronbach's alpha for the Student Involvement scale was .41 for the actual version and .48 for the preferred version. It was speculated that this might be explained by the disparate nature of the items of the scale or by the cultural and educational norms of this study's nursing students. The actual versions of the Teaching Innovation and Individualization scales also did not reach .60.

The quantitative analysis demonstrated that students consistently preferred a clinical learning environment with higher levels of Personalization, Student Involvement, Satisfaction, Task Orientation, Teaching Innovation and Individualization. The differences between the all six scales in relation to the preferred and actual versions were statistically significant. Comparing the mean scores of the six scales demonstrated that Satisfaction, Personalization and Task Orientation had the highest mean values

suggesting that overall these nursing students were satisfied with their clinical learning environment, felt that they were given opportunities to learn and their assigned were clear and planned. The three other scales (Individualization, Teaching Innovation and Student Involvement) had not met reliability standards and their mean scores were relatively lower. This suggests that this group of nursing students tended to feel that they were not treated as individuals, that teaching strategies were not innovative and they were not as involved in unit activities as they preferred to be.

The qualitative analysis of the two open-ended questions resulted in 12 categories with 2 being recommendations for the four year program (more clinical hours) and the senior practicum (expectations must be clear and faculty advisors should meet with students during their shifts), and 1 category consistently of a collection of responses that were ambiguous or idiosyncratic. However, two items were presented and these related to peer support as an enhancement to learning and the perception that nursing students were a solution for staff shortages. The remaining 9 categories were: generic positive comments; preceptors; time; fatigue and scheduling; variation in tasks; staff and unit environment, self-directed learning and independence; learning opportunities; and working with other staff. These categories were described and linked with Chan's six scales (Individualization, Teaching Innovation, Student Involvement, Personalization, Task Orientation and Satisfaction) and the findings from other studies. Categories such as time, fatigue and scheduling, and self-directed learning and independence were noted as not being well represented in the CLEI. The next chapter moves from this summary to a discussion of the meaning of these findings to the field of clinical learning environments.

Chapter 5: Discussion

Introduction

This chapter provides a discussion of the findings that emerged from the study “Undergraduate nursing students’ perceptions of the psychosocial characteristics of the clinical learning environment”. Following the findings, several recommendations are made that reflect the value of the findings to nursing educators, preceptors, faculty advisors, managers, and health care institution leaders. The limitations of this study will be outlined followed by directions for future research and a conclusion.

Discussion of the Findings

This discussion of the findings is organized around the six scales of the Clinical Learning Environment Inventory (Chan, 2001). All of the preferred versions of the scales have higher mean scores compared with their corresponding actual versions. As indicated in chapter 4, this suggested that these nursing students consistently preferred a clinical learning environment with higher levels of Personalization, Student Involvement, Satisfaction, Task Orientation, Teaching Innovation and Individualization than they actually experienced in the clinical learning environment. However, because the preferred and actual scales were completed at the same point in time, the nursing students may have tended to see the “relationship” between the two versions rather than viewing them separately. For example, if the preferred version were completed prior to entering the clinical environment, nursing students may have been more optimistic about their preferences, and later without the baseline of the preferred version in front of them, their responses to the actual version may have been more or less optimistic. This is something that cannot be learned from this study but it may be a suggestion for future studies.

Nevertheless, the findings indicate a statistically significant difference between the actual and preferred versions of all six scales.

The findings of a statistically significant difference between the actual and preferred versions of all the scales must be taken with caution. Three of the six CLEI scales demonstrated problems with the internal consistency of items and indicated a Cronbach's alpha coefficient of less than .60. These were the Student Involvement (both versions), the Teaching Innovation (actual version only) and the Individualization (actual version) scales. To begin with the Student Involvement scale, it should be noted that other studies have reported unacceptable Cronbach alpha coefficients for this scale (Brensten & Bjork, 2010; Ip & Chan, 2005; Perli & Brugnoli, 2009). Ip and Chan (2005) suggested that the low internal consistency of items might be related to different methods in clinical teaching between their study participants in Hong Kong and the Australian study by Chan (2003).

For this study, it was suggested that the consistency problem might be related to the disparity of items and further it was reported that involvement scale items related to effort and opportunity were statistically correlated in both versions of the scale. It might be that these nursing students have been encouraged to make efforts and take opportunities and that these are social or educational norms that can be expressed only partially in this scale. From the qualitative findings for the category of "working or interacting with other staff", there are indications that students want to become more involved with other nurses on the unit and with other health professionals. New items that address this type of involvement might correlate well with Chan's items on effort and opportunity and increase the internal consistency of the scale for this group of nursing

students. Other studies have suggested that nursing students want to be part of the team and their acceptance of staff into the team will benefit the students as they engage in their learning (Nolan, 1998; Ranse & Grelish, 2007)

The Teaching Innovation scale in the actual version also demonstrated a problem with the internal consistency of items (Cronbach's alphas coefficient of .52) and it is the actual version that is the primary focus when attempting to learn more about nursing students' perceptions of their clinical learning environment. It seems likely that this problem again is related to the individual items and the potential social and educational norms related to teaching innovation for these nursing students. Both versions of this scale also have the lowest mean score (21.56) compared with the other scales and have with the second highest mean difference (3.18) between the versions. This means that these nursing students have a less positive perception of their learning environment in relation to their preceptor's teaching and their learning activities compared to the other scales. In studies by Chan (2002), Ip and Chan (2005), and Smedley and Morey (2010), Teaching Innovation also presented the lowest mean score in the actual version (22.01, 15.23 and 20.61 respectively).

The skills and abilities of the preceptor are central to the quality of the clinical learning environment (Gaberson & Oermann, 2007) and these students are not reporting high agreement to positive statements about their preceptors teaching ability and their patient assignment. It may be that students have become accustomed to classroom teaching and are using this standard of teaching when evaluating the preceptor. It should be noted that at the Faculty of Nursing, University of Manitoba, this is the only course that has a preceptor. All the other courses have clinical educators who are university staff

members. Thus the students in NURS 4290 have never worked with a preceptor from the clinical practice setting and as neophytes may be misunderstanding or overestimating the role of the preceptor. Given the high mean difference between the preferred and actual versions, these nursing students have high expectations that are not realized in the clinical practice setting. In addition, preceptors are frequently selected based on their availability and not necessarily on their desire to precept or their qualifications, thus undergraduate nursing students are assigned to preceptors with minimal or no preparation as teachers (Myrick & Barrett, 1994)

The third scale that presented a Cronbach's alpha coefficient of less than .60 was the Individualization scale on the actual version (.52). Individualization is the extent to which students are allowed to make decisions and are treated differently according to ability or interest and the mean score for the actual version was 23.69, the second lowest mean score. However, it was interesting to note that the mean difference between the actual and preferred versions was small at 1.98. This suggests that students' preferences for individualization and actual experience were relatively close compared with other scales and the low mean score for the actual version suggests that students have a less positive perception of their learning environment in relation to Individualization compared to other scales. For the nursing students in this study, there may have been few choices offered or available. Often they will follow their preceptors' shift schedules and their workload is set from the beginning to eventually be 75-100% of a patient care load by the end of the practicum. However, the qualitative findings from the category of self-directed learning and independence suggested that these nursing students do want more individualization and more opportunity to make decisions on their clinical practice. Papp

et al.'s (2003) found four themes expressed through nursing students' perceptions of their clinical learning experiences and one of these was related to self-direction. The findings suggested that nursing students have a role to play in getting the most out of their clinical experience and that some students were highly self-directed while others needed their preceptor to direct them.

The Personalization, Task Orientation and Satisfaction scales all demonstrated acceptable internal reliability with Cronbach alpha coefficients at above .60. The Personalization scale was based on the opportunities for students to interact with their preceptor and on concern for the student's personal welfare. This scale had relatively high mean values for both versions and a small mean difference between the preferred and actual version meaning that students' expectations were not far from their actual experience. It is therefore perplexing that in the open-ended questions, more students expressed negative experiences related to their welfare compared with those who expressed positive experiences. All of the items from the Personalization scale are directed to the preceptor whereas all but one of the negative clinical experiences reported by students related to clinical staff or the unit in general. It may be that preceptors were concerned with the students' welfare and this was expressed in the Personalization scale but other clinical staff members were not. Nine of the 61 students (15%) reported behaviour that would be unacceptable in any workplace and certainly should not be acceptable in a health care setting that was also a clinical learning environment for new health professionals.

The Task Orientation scale relates to the extent that ward activities are clear and well-organized. For Task Orientation, the mean scores were in the middle range

compared to other scales but the difference between the mean scores of the preferred and actual versions was the largest compared to all of the scales. This indicated that these nursing students experienced a larger difference between what they preferred and what they actually experienced in relation to clinical tasks and activities. Studies have suggested that nursing students are anxious about skill acquisition and concerned about making mistakes and doing procedures correctly (Sprenkel & Job, 2004; Timmins & Kaliszer, 2002). From the qualitative data, there were three categories that related to Task Orientation: time, variation in tasks, and learning opportunities. In response to the open-ended questions, nursing students expressed that they did not have enough time to learn, reflect and practice. They wanted more opportunities to provide care to a variety of patients with a variety of needs and they wanted learning opportunities to explore other clinical units. Their comments were grounded in the need for skill acquisition and consolidation.

The final scale was the Satisfaction scale and the items in this scale seek to measure the extent of enjoyment that took place in the clinical placement. This scale has the highest mean scores and a difference between the mean scores of the two versions of 2.72. This means that students were satisfied and there was some difference between what they preferred and actually experienced. From the qualitative comments, there were two categories, one of which was the generic positive comments and the other was fatigue and scheduling. These nursing students expressed several general comments about their clinical experience; their experiences were described as amazing, incredible, positive and awesome; their learning was supported and they learned a lot in a short time. On the other

hand, their comments from the fatigue and scheduling category spoke to feelings of exhaustion with no time to rest between shifts.

Recommendations

A good clinical environment for nursing students who will be the future health professionals can be established through good cooperation between the educators and the clinical staff (Papp et al., 2003). Collaboration between the educational institutions and health care organizations is essential. Given the findings of this study, there are some specific recommendations related to educator, clinical staff and nursing students.

1. For nursing students, it seems clear that one preceptor is ideal and two is possible but more than two means inconsistent feedback and evaluation. Students should be encouraged to see their preceptor as someone who is concerned about their welfare but who may be struggling to learn and develop the new role of preceptor. In a sense, new preceptors are also “students” and must be nurtured and supported as well. Perhaps a preceptor peer learning group would be helpful. Students might also benefit from peer support and be encouraged to communicate through the NURS 4290 group list to talk with each other.
2. The role of the preceptor must be valued and supported by both the educational institutions and the health care organization. Some of this is already in place through the orientation session and the website for preceptors. To answer the question, “what else do preceptors need to feel confident, satisfied and appreciated in their important role of educator?”, one must ask the preceptors. This study cannot answer this question except to say that

valuing and support of preceptors must emanate from educators and employers. Health care institutions must provide some type of reward or incentive that provides tangible evidence of value. Managers have a role by making clinically credible preceptors available, and reducing (not increasing) their workload so they can be available to teach students. Similarly, educators must find ways to equip preceptors with a toolbox of teaching strategies and ways to encourage and support student learning in the clinical area. Students are most concerned about skill acquisition and consolidation.

3. Faculty advisors must be in tune with the nursing student's schedule and plan meetings around the shift schedules of students. If the student is experiencing bullying or belittling, then this is a toxic clinical learning environment and in collaboration with the health care institution, a new placement setting is necessary. Alternatively, the faculty advisor must be equipped to provide strategies to the nursing student who is experiencing an unhealthy clinical learning environment.

Limitations

A number of limitations were identified for this study. The first limitation is the small number of participants (n=61; 38% response rate). So, generalization of the findings is limited. Associated with this limitation is a caution that must be taken when interpreting the qualitative data where several categories representing small number of nursing students are evident. A second limitation is that three of the six CLEI scales demonstrated unacceptable internal consistency of items. These may be related to different social and educational norms of the students from this study compared with the

groups of nursing student who comprised the study that lead to the validation of the CLEI. Third, the preferred and actual versions of the scales were administered at the same time so it is not clear whether or not the nursing students were responding to the “relationship” between the two versions rather than viewing them separately. Fourth, this study placed parameters around the data that were collected and there are two examples of where different or more information might have been collected. Only the students’ perceptions of the clinical learning environment were collected whereas including perceptions from the faculty advisors and preceptors would have provided a fuller picture of what constitutes a healthy and positive clinical learning environment. Also, the person-environment fit model suggests that a lack of fit creates dissonance and for this thesis study, data were not collected on the dissonance or stress experienced by nursing students.

Future research

There are several ideas for future research that emanate from this study. First, findings suggest that three scales are not reliable with this group of nursing students. Further research is required regarding the use of the CLEI and its suitability with Canadian nursing students or American nursing students who may share social and educational norms that are different from their Asian, Australian and European counterparts. This is not to suggest that one sample constitutes or represents a “Canadian” sample but this study is the first study with a sample of Canadian nursing students and as such, findings may be speculated as falling within that social or cultural context. The CLEI as developed by Chan (2001) does not contain items related to: time constraints or pressure, fatigue and scheduling, and self-directed- learning and

independence although these aspects of the clinical learning environment are expressed by students and reported in other studies. Nursing students from this study were looking for more opportunities to learn and master the skills expected of a Registered Nurse. Second, more research could be directed toward learning more about the qualities that make a good preceptor and a good faculty advisor. The literature has shed light on what makes a good clinical learning environment but more emphasis could be placed on the role of faculty advisors and preceptors as key individuals who can assist with nursing students who want to learn and “fit in” and be accepted in the clinical setting. Finally, more research is necessary to better understand clinical settings where bullying and belittling take place, not only in relation to nursing student learning but also in relation to the clinical staff and others who need a healthy work environment as a foundation to provide quality care.

Conclusion

Generally speaking the students in this study seemed eager to learn, made an effort and looked for variation in tasks and took opportunities to learn from their preceptors and others in the clinical environment. To the nursing students, their preceptors seemed concerned about their welfare but tended to lack knowledge of teaching and learning strategies. The obstacles for the students were time pressure, fatigue emanating primarily from shift scheduling, and for some, a non-supportive clinical learning environment. Overall, their preferences for a clinical learning environment are more optimistic compared with their actual experience. However, their assessment from the CLEI satisfaction scale and responses to open-ended questions indicated satisfaction with the clinical learning experience. Nursing educators strive to equip nursing students

to move from the student role to the professional status of a Registered Nurse. Clinicians, managers and health care organization administrators strive to assist in this preparation of students to this same goal in order to provide safe, competent and compassionate care.

There is still work to be done to provide a healthy and supportive clinical learning environment for nursing students and this task belongs to nursing researchers, educators, and health care organization preceptors and leaders.

References

- American Association of Colleges of Nursing. (2004). *Thousands of students turned away from the Nation's nursing schools despite sharp increase in enrollment*. Retrieved from <http://www.aacn.nche.edu/media/newsreleases/enr103.htm>
- Baltimore, J. J. (2004). The hospital clinical preceptor: Essential preparation for success. *Journal of Continuing Education in Nursing*, 35(3), 133-140. Retrieved from <http://www.slackjournals.com/pastIssue.aspx?pubid=jcen>
- Beck, D. L. & Srivastava, R. (1991). Perceived level and sources of stress in baccalaureate nursing students. *Journal of Nursing Education*, 30(3), 127-133. Retrieved from <http://www.slackjournals.com/pastIssue.aspx?pubid=jne>
- Berntsen, K., & Bjork, I. T. (2010). Nursing students' perceptions of the clinical learning environment in nursing homes. *Journal of Nursing Education*, 49(1), 17-22. doi:10.3928/01484834-20090828-06
- Billings, D. M. & Halstead, J. A. (2009). *Teaching in nursing: A guide for faculty* (3rd ed). St. Louis, Missouri: Saunders Elsevier.
- Chan, D. (2001). Development of an innovative tool to assess hospital learning environments. *Nurse Education Today*, 21(8), 624-631. doi:10.1054/nedt.2001.0595
- 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. *The Journal of Nursing Education*, 41(2), 69-75. Retrieved from <http://www.slackjournals.com/pastIssue.aspx?pubid=jne>
- Chan, D. S. (2004). Nursing students' perceptions of hospital learning environments - An Australian perspective. *International Journal of Nursing Education Scholarship*, 1(1), 1-13. Retrieved from <http://www.bepress.com/ijnes/>
- Chan, D. S. K. (2003). Validation of the clinical learning environment inventory. *Western Journal of Nursing Research*, 25(5), 519-532. doi:10.1177/0193945903253161
- Chan, D. S. K., & Ip, W. Y. (2007). Perception of hospital learning environment: A survey of Hong Kong nursing students. *Nurse Education Today*, 27(7), 677-684. doi:10.1016/j.nedt.2006.09.015
- Chapman, L., & Kirby, D. (2008). A critical analysis of the benefits and limitations of an applied degree in undergraduate nursing education. *Nursing Leadership (Toronto, Ont.)*, 21(4), 73-84. Retrieved from <http://www.longwoods.com/publications/nursing-leadership/all>

- Chen, S., Brown, J. W., Groves, M. L., & Spezia, A. M. (2007). Baccalaureate education and american nursing homes: A survey of nursing schools. *Nurse Education Today*, 27(8), 909-914. doi:10.1016/j.nedt.2007.01.004
- Chickerella, B. G., & Lutz, W. J. (1981). Professional nurturance: Preceptorships for undergraduate nursing students. *American Journal of Nursing*, 81(1), 107-109. Retrieved from <http://journals.lww.com/ajnonline/pages/issuelist.aspx>
- Clark, R., Culver, & Allison-Jones, L. (2011). Investing in human capital: An academic-service partnership to address the nursing shortage. *Nursing Education Perspectives*, 32(1), 18-21. Retrieved from <http://www.nln.org/nlnjournal/index.htm>
- Clayton, G. M., Broome, M. E., & Ellis, L. A. (1989). Relationship between a preceptorship experience and role socialization of graduate nurses. *The Journal of Nursing Education*, 28(2), 72-75. Retrieved from <http://www.slackjournals.com/pastIssue.aspx?pubid=jne>
- Coakes, S. J., & Steed, L. G. (1997). *SPSS analysis without anguish*. Brisbane, Australia: John Wiley.
- Dolan, G. (2003). Assessing student nurse clinical competency: Will we ever get it right? *Journal of Clinical Nursing*, 12(1), 132-141. doi:10.1046/j.1365-2702.2003.00665.x
- Dunn, S. V., & Burnett, P. (1995). The development of a clinical learning environment scale. *Journal of Advanced Nursing*, 22(6), 1166-1173. Retrieved from <http://www.journalofadvancednursing.com/>
- Edmond, C. (2001). A new paradigm for practice education. *Nurse Education Today*, 21, 251-259. doi:10.1054/nedt.2000.0543
- Fisher, D. L., & Parkinson, C. A. (1998). Improving nursing education classroom environments. *The Journal of Nursing Education*, 37(5), 232-236. Retrieved from <http://www.slackjournals.com/pastIssue.aspx?pubid=jne>
- Foxman, S. (2004). Welcome to 2005: A new era for nursing education. *The Standard*, 29(4), 12-15.
- Freiburger, O. A. (2001). A tribute to clinical preceptors. Developing a preceptor program for nursing students. *Journal for Nurses in Staff Development: JNSD: Official Journal of the National Nursing Staff Development Organization*, 17(6), 320-327. Retrieved from <http://journals.lww.com/jnsdonline/pages/default.aspx>
- Gaberson, K. B. & Oermann, M. H. (Eds.). (2007). *Clinical teaching strategies in nursing* (2nd ed.). New York, NY: Springer Publishing Company.

- Glover, P. A. (2000). 'Feedback. I listened, reflected and utilized': Third year nursing students' perceptions and use of feedback in the clinical setting. *International Journal of Nursing Practice*, 6(5), 247-252. Retrieved from <http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291440-172X/issues>
- Hart, G., & Rotem, A. (1995). The clinical learning environment: Nurses' perceptions of professional development in clinical settings. *Nurse Education Today*, 15(1), 3-10. Retrieved from <http://www.nurseeducationtoday.com/issues>
- Henderson, A., Twentyman, M., Heel, A., & Lloyd, B. (2006). Students' perception of the psycho-social clinical learning environment: An evaluation of placement models. *Nurse Education Today*, 26(7), 564-571. doi:10.1016/j.nedt.2006.01.012
- Hibberd, J. M. & Smith, D. L. (2006). *Nursing leadership and management in Canada* (3rd ed.). Toronto, ON: Elsevier Canada.
- Ip, W. Y., & Chan, D. S. K. (2005). Hong kong nursing students' perception of the clinical environment: A questionnaire survey. *International Journal of Nursing Studies*, 42(6), 665-672. doi:10.1016/j.ijnurstu.2004.09.019
- Kevin, J. (2006). Problems in the supervision and assessment of student nurses: Can clinical placement be improved? *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 22(1), 36-45. Retrieved from <http://search.informit.com.au/browseJournalTitle;res=IELHEA;issn=1037-6178>
- Laschinger, H. (2006). Nursing administration research. In J. Hibberd & D. Smith (Eds.) *Nursing leadership and management in Canada* (3rd ed.) (pp. 481-495). Toronto, ON: Mosby.
- Lewin, K. (1936). *Principles of topological psychology*. New York, NY: McGraw-Hill Book Company.
- Lewis, J. B., & Deans, S. K. (1991). The importance of collaboration with staff nurses in the socialization of nursing students. *Nursing Connections*, 4(2), 27-31.
- Lockwood-Rayermann, S. (2003). Preceptor leadership style and the nursing practicum. *Journal of Professional Nursing*, 19(1), 32-37. doi:10.1053/jpnu.2003.7
- Löfmark, A., & Wikblad, K. (2001). Facilitating and obstructing factors for development of learning in clinical practice: A student perspective. *Journal of Advanced Nursing*, 34(1), 43-50. Retrieved from <http://www.journalofadvancednursing.com/>
- Loiselle, C. G., Profetto-McGrath, J., Polit, D. F., & Beck, C. T. (2011). *Canadian essentials of nursing research* (3rd ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

- Mairis, E. (1992). A good example and a lasting impression. facilitating an effective learning environment for student nurses. *Professional Nurse (London, England)*, 8(3), 143-146.
- Massarweh, L. J. (1999). Promoting a positive clinical experience. *Nurse Educator*, 24(3), 44-47. Retrieved from <http://journals.lww.com/nurseeducatoronline/pages/default.aspx>
- McBrien, B. (2006). Clinical teaching and support for learners in the practice environment. *British Journal of Nursing (Mark Allen Publishing)*, 15(12), 672-677. Retrieved from http://www.internurse.com/cgi-bin/go.pl/library/issues.html?journal_uid=9
- McCabe, B. W. (1985). The improvement of instruction in the clinical area: A challenge waiting to be met. *The Journal of Nursing Education*, 24(6), 255-257. Retrieved from <http://www.slackjournals.com/pastIssue.aspx?pubid=jne>
- Midgley, K. (2006). Pre-registration student nurses perception of the hospital-learning environment during clinical placements. *Nurse Education Today*, 26(4), 338-345. doi:10.1016/j.nedt.2005.10.015
- Moos, R. H. & Insel, P. M. (1974). *Health and the social environment*. Lexington, MA: Lexington Books.
- Moos, R. H. (1974). *Evaluating treatment environments: A social ecological approach*. New York, NY: John Wiley & Sons.
- Moos, R. H. (1975). *The human context: Environmental determinants of behavior*. New York, NY: John Wiley & Sons.
- Moos, R., & Trickett, E. (1974). *Classroom environment scale manual*. Palo Alto: CA.
- Morgan, R. (2005). Practice placements for students: A literature review. *Nursing Times*, 101(30), 38-41. Retrieved from <http://www.nursingtimes.net/publication-index/>
- Moscaritolo, L. M. (2009). Interventional strategies to decrease nursing student anxiety in the clinical learning environment. *Journal of Nursing Education*, 48(1), 17-23. doi:10.3928/01484834-20090101-08
- Murray, H. A. (1938). *Experience in personality: A clinical and experimental study of fifty men of college age* (6th ed.). New York, NY: Oxford University Press.
- Myrick, F., & Barrett, C. (1994). Selecting clinical preceptors for basic baccalaureate nursing students: A critical issue in clinical teaching. *Journal of Advanced Nursing*, 19(1), 194-198. Retrieved from <http://www.journalofadvancednursing.com/>

- Newton, J. M., Jolly, B. C., Ockerby, C. M., & Cross, W. M. (2010). Clinical learning environment inventory: Factor analysis. *Journal of Advanced Nursing*, 66(6), 1371-1381. doi:10.1111/j.1365-2648.2010.05303.x
- Nolan, C. A. (1998). Learning on clinical placement: The experience of six Australian student nurses. *Nurse Education Today*, 18(8), 622-629. Retrieved from <http://www.nurseeducationtoday.com/issues>
- Nunnally, J. C. & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York, NY: McGraw-Hill.
- Palmer, S. P., Cox, A. H., Callister, L. C., Johnsen, V., & Matsumura, G. (2005). Nursing education and service collaboration: Making a difference in the clinical learning environment. *Journal of Continuing Education in Nursing*, 36(6), 271-276. Retrieved from <http://www.slackjournals.com/pastIssue.aspx?pubid=jcen>
- 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(4), 262-268. doi:10.1016/S0260-6917(02)00185-5
- Perli, S., & Brugnolli, A. (2009). Italian nursing students' perception of their clinical learning environment as measured with the CLEI tool. *Nurse Education Today*, 29(8), 886-890. doi:10.1016/j.nedt.2009.05.016
- Ranse, K., & Grealish, L. (2007). Nursing students' perceptions of learning in the clinical setting of the dedicated education unit. *Journal of Advanced Nursing*, 58(2), 171-179. doi:10.1111/j.1365-2648.2007.04220.x
- Saarikoski, M., Isoaho, H., Warne, T., & Leino-Kilpi, H. (2008). The nurse teacher in clinical practice: Developing the new sub-dimension to the clinical learning environment and supervision (CLES) scale. *International Journal of Nursing Studies*, 45(8), 1233-1237. doi:10.1016/j.ijnurstu.2007.07.009
- Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in Nursing Sciences*, 8(3), 27-37.
- Shpritz, D. W. & O'Mara, A. M. (2006). A model preceptor program for student nurses. In J. P. Flynn & M. C. Stack (Eds.), *The role of the preceptor: A guide for nurse educators, clinicians, and managers* (2nd ed., pp. 28-53). New York, NY: Springer Publishing Company.
- Smedley, A., & Morey, P. (2010). Improving learning in the clinical nursing environment: Perceptions of senior Australian bachelor of nursing students. *Journal of Research in Nursing*, 15(1), 75-88. doi:10.1177/1744987108101756

- Sprengel, A. D., & Job, L. (2004). Reducing student anxiety by using clinical peer mentoring with beginning nursing students. *Nurse Educator*, 29(6), 246-250. Retrieved from <http://journals.lww.com/nurseeducatoronline/pages/issuelist.aspx>
- Stern, G. G. (1970). *People in context: Measuring person-environment congruence in education and industry*. New York, NY: John Wiley & Sons.
- Stokes, L.G., Kost, C.,(2009). Teaching in the clinical setting. In D. Billings &J. Halsteded (Eds.). *Teaching in nursing, A guide to faculty* (3rd ed). St. Louis, Missouri: Saunders Elsevier.
- Timmins, F. & Kaliszer, M. (2002). Aspects of nurse education programmes that frequently cause stress to nursing students - Fact-finding sample survey. *Nursing Education Today*, 22, 203-211. doi: 10.1054/nedt.2001.0698
- Usher, K., Nolan, C., Reser, P., Owens, J., & Tollefson, J. (1999). An exploration of the preceptor role: Preceptors' perceptions of benefits, rewards, supports and commitment to the preceptor role. *Journal of Advanced Nursing*, 29(2), 506-514. doi:10.1046/j.1365-2648.1999.00914.x
- Watts, T. E. (2011). Supporting undergraduate nursing students through structured personal tutoring: Some reflections. *Nurse Education Today*, 31(2), 214-218. doi:10.1016/j.nedt.2010.06.005
- Wood, M. J. & Ross-Kerr, J. C. (2006). *Basic steps in planning nursing research: From question to proposal* (6th ed.). Sudbury, MA: Jones and Bartlett Publishers.
- Young, L. E. & Myrick, F. (2007). Preceptorship pathways for the senior undergraduate nursing student. In *Teaching nursing: Developing a student-centered learning environment*. Philadelphia, PA: Lippincott Williams & Wilkins.

Appendix A
Dr Chan Permission to use the CLEI

Hello Abeer

Thank you for the note; you have my permission to use the CLEI for your study. Please find attached the 2 versions of the CLEI (actual & preferred) along with details of subscale items and scorings method. Naturally I would appreciate the usual respect for copyright with acknowledgement of my authorship of the CLEI in all related publications and presentations. I wish you a smooth and productive study.

Kind regards

Dominic Chan

Appendix B
Ethics Approval Certificate



UNIVERSITY OF MANITOBA | **Ethics**
Office of the Vice-President (Research)

CTC Building
208 - 194 Dafoe Road
Winnipeg, MB R3T 2N2
Fax (204) 269-7173
www.umanitoba.ca/research

APPROVAL CERTIFICATE

October 22, 2010

(Advisor L. Guse)

TO: **Abeer Alraja**
Principal Investigator

FROM: **Stan Straw, Chair** 
Education/Nursing Research Ethics Board (ENREB)

Re: **Protocol #E2010:110**
"Undergraduate Nursing Students' Perceptions of the Psychosocial Characteristics of the Clinical Learning Environment during their Clinical Placements"

Please be advised that your above-referenced protocol has received human ethics approval by the **Education/Nursing Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement. This approval is valid for one year only.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

Please note:

- If you have funds pending human ethics approval, the auditor requires that you submit a copy of this Approval Certificate to the Office of Research Services, fax 261-0325 - please include the name of the funding agency and your UM Project number. This must be faxed before your account can be accessed.
- if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.

The Research Ethics Board requests a final report for your study (available at: http://umanitoba.ca/research/ors/ethics/ors_ethics_human_REB_forms_guidelines.html) in order to be in compliance with Tri-Council Guidelines.

Appendix C
NURS 4290 STUDENTS' COURSE EVALUATION FORM

UNIVERSITY OF MANITOBA

FACULTY OF NURSING
SENIOR PRACTICUM EVALUATION FORM 2010

The Senior Practicum evaluation form measures general performance expectations for senior nursing students. These performance expectations can be applied in a range of nursing roles and clinical sites and are based on the College of Registered Nurses of Manitoba, (CRNM) Entry Level Competencies for Registered Nurses in Manitoba. Entry Level Competencies for Registered Nurses in Manitoba may be found on the CRNM web site.

This evaluation tool consists of several competency categories. These competencies have been developed in Manitoba by the CRNM and are consistent with those of other Canadian jurisdictions. They serve as a useful framework for evaluation and as a means to familiarize senior students with the expectations and standards by which their nursing practice may be assessed following graduation.

<p>Competencies: Behaviours that reflect the knowledge, skills, judgment, and personal attributes required of a practitioner.</p>
--

GUIDELINES for using the Senior Practicum Evaluation Form:

1. The evaluation tool uses a rating scale format for ease of use by preceptors.
2. It is important to support your rating scale assessment with narrative comments that include examples and explanations. Please date narrative comments. Use the back of the page for additional comments.
3. **Timing** of Evaluations: The evaluation tool should be used at approximately the half-way point; and at or near the end of date of the student's placement (see Timetable for suggested dates). Informal evaluation in the form of regular or daily debriefing is important for providing opportunities for feedback, encouragement, questions, clarification, teaching, and for helping students identify their strengths and areas for improvement.
4. **Final Grading:** Faculty advisors determine the final grade based mainly, but not exclusively, on the information, or examples provided by the preceptor. Preceptors are not required to determine the final course grade. Evaluation materials should be provided to the faculty advisor on completion of the practicum.
5. **Non-Complex:** (Stable) Situations in which the person's health status can be anticipated, the plan of care is established, and care is managed with interventions that have predictable outcomes.

Complex: (Unstable) Situations characterized by a combination of variables that do not have predictable outcomes based on theoretical knowledge. The nursing care requires the transfer of relevant best practices and knowledge, the ability to make simultaneous assessments, clinical judgments, analysis and evaluations. Initially, the entry level practitioner needs to consult with experienced registered nurses in complex situations. Complex Interventions: e.g. advanced wound care skills, caring for a client with unstable health problems, facilitating group process.

6. A grade of A+ or outstanding is available to students, however only a small number of students will meet the criteria for this evaluation.
7. Students functioning at the unsatisfactory level should be followed closely and with the assistance of the faculty advisor. The advisor or course leader should be notified immediately of any student falling below the satisfactory level on any indicator and/or when ever client safety is a concern.
8. We recognize the evaluation process may be complex. **Do not hesitate to call on the Faculty advisor for assistance with evaluations.**

DEFINITIONS OF QUALIFIERS:

While caring for 50-75% of the preceptor workload at mid term and 75-100% of the preceptor workload at the end of senior practicum (workload to be determined in specialized areas of practice) the nursing student demonstrates consistent growth, applies principles of primary health care, incorporates critical thinking, and performs nursing care:

Outstanding - At a level well beyond that expected of a Year IV nursing student; meets all criteria with a high degree of independence. The student consistently:

- Applies more complex theoretical knowledge clinically every time (without prompting)
- **Performs safely**
- Is able to function confidently in complex situations
- Provides exceptional holistic centered care in complex situations
- Demonstrates exceptional organizational skill and prioritization
- Recognizes when supportive or directive cues are necessary and seeks assistance appropriately

Excellent - At an Excellent level expected of a Year IV nursing student; meets outcome criteria independently. The student consistently:

- Applies theoretical knowledge accurately
- **Performs safely**
- Provides holistic centered care
- Demonstrates excellent organizational skills and prioritization
- Functions confidently in a variety of situations
- Recognizes when supportive or directive cues are necessary and seeks assistance appropriately

Very Good - At a very good level expected of a Year IV nursing student: meets outcome criteria with minimal assistance.

- Applies theoretical knowledge most of the time
- **Performs safely**
- Provides holistic centered care majority of the time
- Demonstrates very good organizational skills and prioritization
- Is able to function confidently and safely in increasingly complex situations
- Recognizes when supportive or directive cues are necessary and seeks assistance

Good - At a competent level expected of a Year IV nursing student; meets outcome criteria with occasional assistance.

- Identifies theoretical principles, with evidence of application of theoretical principles in clinical practice
- **Performs safely**
- Incorporates principles of holistic centered care
- Developing good organizational skills and prioritization
- Is able to function safely in increasingly complex situations
- Recognizes when supportive or directive cues are necessary and seeks assistance appropriately

Satisfactory - At a satisfactory level expected of a Year IV nursing student; meets outcome criteria with varying degrees of assistance throughout the clinical rotation.

- Identifies theoretical principles, but requires assistance to identify application of theoretical principles in clinical practice
- **Performs safely**
- Developing organizational skills and prioritization for 75% of work assignment
- May focus primarily on tasks, not consistently taking into account “the whole client”
- Is able to function in ‘focused’ situations (not complex situations); requires reassurance from preceptor and/or other health care professionals
- Recognizes when supportive or directive cues are necessary and seeks assistance appropriately

Unsatisfactory - Unable to demonstrate consistent growth and unable to meet outcome criteria despite frequent assistance.

- Fails to perform consistent/safe nursing care for a year IV student.
- Unable to identify theoretical principles or apply theoretical principles in clinical practice
- Unable to perform in a safe manner
- Lacks organization and prioritization.
- Attempts activity or behaviour yet unable to complete safely and/or correctly – does not seek required assistance
- Requires continuous monitoring

Note: Person/Client may refer to: an individual, a family, a client group or a community. Please check the appropriate qualifier in the shaded box and provide supportive narrative comments at the mid-term and final evaluation. For additional comments please use reverse of page or attach documentation. Thank-you.

A.KNOWLEDGE AND COMPETENT APPLICATION	Mid Term Evaluation						Final Evaluation					
<i>Goal: The nursing student will be able to practice safely, competently, independently and confidently at the beginning practitioner level.</i>	Outstanding	Excellent	Very Good	Good	Satisfactory	Un-satisfactory	Outstanding	Excellent	Very Good	Good	Satisfactory	Un-satisfactory
A.1. Performs and refines client assessments (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><i>The nursing student performs and refines comprehensive and holistic client assessments.</i></p> <ul style="list-style-type: none"> • Collects accurate/complete data from a variety of sources (client, previous and current health records, family etc) within the context of scientific knowledge • Conducts an accurate, organized/systematic and complete assessment using appropriate techniques (i.e. auscultation, inspection, screening tests, interpretation of lab data etc) • Updates assessment data on an ongoing basis • Anticipates client's actual and potential health care • Completes assessments in a timely manner • Completes assessments in accordance with agency policy and protocols 	Comments:						Comments:					
A.2. Develops client focused plans of care (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><i>The nursing student demonstrates the ability to develop client focused plans of care.</i></p> <ul style="list-style-type: none"> • Effectively establishes priorities • Facilitates the appropriate involvement of clients in identifying their preferred health outcomes • Applies critical inquiry process in making clinical judgements • Planning is ongoing and includes client, family, health care team members and community • Anticipates potential staff safety concerns and initiates appropriate action 	Comments:						Comments:					

A. KNOWLEDGE AND COMPETENT APPLICATION	Mid Term Evaluation						Final Evaluation					
<i>The nursing student demonstrates the ability to implement safe, effective and holistic care.</i>	Out-standing	Excellent	Very Good	Good	Satisfactory	Un-satisfactory	Out-standing	Excellent	Very Good	Good	Satisfactory	Un-satisfactory
A.3. Applies knowledge (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Utilizes theoretical knowledge (e.g. physiology, pharmacology, evidenced-based practice) as a basis for nursing interventions of clients at all levels on the health-illness continuum Performs nursing interventions safely and effectively Applies safety principles to prevent injury to clients, self, health team 	Comments:						Comments:					
A.4. Teaches and verifies learning (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Assesses clients' learning needs (i.e. medical treatment, nursing interventions, lifestyle changes) Develops, implements and evaluates appropriate teaching strategies 	Comments:						Comments:					

A.KNOWLEDGE AND COMPETENTAPPLICATION	Mid Term Evaluation						Final Evaluation					
<i>The nursing student demonstrates the ability to implement safe, effective and holistic care.</i>	Out-standing	Excellent	Very Good	Good	Satisfactory	Un-satisfactory	Out-standing	Excellent	Very Good	Good	Satisfactory	Un-satisfactory
A.5. Provides client centered care (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Demonstrates respect for client age, individuality, culture, and diversity • Functions as a client advocate • Assists client to identify own assets and resources for self-care, health promotion and in identifying and accessing relevant health resources in their community, e.g., home care, support groups 	Comments:						Comments:					
A.6. Organizes client assignments (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Plans and organizes workload managing multiple client demands and workplace demands simultaneously utilizing delegation and supervision of others • Coordinates client care within the context of the team model • Recognizes, seeks immediate assistance, helps others in rapidly changing situations 	Comments:						Comments:					

A.KNOWLEDGE AND COMPETENT APPLICATION	Mid Term Evaluation						Final Evaluation					
<i>The nursing student demonstrates consistent growth in the ability to effectively evaluate client progress and outcomes of care.</i>	Out-standing	Excellent	Very Good	Good	Satisfactory	Un-satisfactory	Out-standing	Excellent	Very Good	Good	Satisfactory	Un-satisfactory
A.7. Evaluates client progress (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Evaluates the effects of nursing care in relationship to expected outcomes; revises and implements plan of care in response to changes in the client's/ family's health care status Verifies evaluation findings with client/family and members of the health care team Evaluates client care in a timely manner 	Comments:						Comments:					
A.8. Communicates effectively (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>The nursing student effectively communicates with the client, family, preceptor and other members of the health care team.</i>	Comments:						Comments:					
<ul style="list-style-type: none"> Identifies the effects of own values and assumptions on interactions with clients Independently establishes and maintains a broad range of communication skills that: <ul style="list-style-type: none"> Provide therapeutic communication Respect appropriate professional boundaries Create a caring environment Supports clients in achieving health outcomes. Communicates effectively and appropriately with members of the health care team to provide continuity and comprehensiveness of client care Uses negotiation and conflict resolution skills with preceptor support to maintain open communication 	A.9. Documents effectively (check one)						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>The nursing student effectively documents client information/data appropriate to their clinical site.</i>	Comments:						Comments:					
<ul style="list-style-type: none"> Documentation is thorough, concise, updated in a timely manner Follows agency policy Understands the significance of informatics/communication technology Maintains client confidentiality in all forms of communication 												

B. PROFESSIONALISM/ACCOUNTABILITY	Mid Term Evaluation						Final Evaluation					
<i>The nursing student demonstrates consistent professional behaviour in their practice of nursing with the client, family, preceptor and other health care team members.</i>	Out-standing	Excellent	Very Good	Good	Satisfactory	Un-satisfactory	Out-standing	Excellent	Very Good	Good	Satisfactory	Un-satisfactory
B.1.Demonstrates accountability (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Practices in a manner consistent with the Code of Ethics, Standards of Practice, PHIA • Is consistently prepared to perform nursing care • Seeks guidance and acts on directions/feedback • Reports situations honestly, objectively, and promptly • Identifies and deals with errors • Demonstrates awareness of own limitations 	Comments:						Comments:					
B.2 Demonstrates professional conduct (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Displays initiative • Maintains a professional appearance • Is punctual for nursing practice • Demonstrates flexibility in adapting to change • Accepts constructive feedback • Establishes and maintains positive working relationships with co-workers • Practices collaboratively and cooperatively with other members of the health care team • Provides constructive feedback to colleagues about client care • Maintains positive working relationship with preceptor(s) • Promotes team problem solving, decision making, and interdisciplinary collaboration 	Comments:						Comments:					
B.3.Developing own competence (check one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Able to work independently as appropriate • Asks for supervision when necessary • Participates in/attends unit conferences, clinical rounds, conferences, and in-service classes • Reviews current literature/research reports in the clinical area • Able to accurately assess own skills and competency • Utilizes study days and "down time" for library searches and other individual learning opportunities. 	Comments:						Comments:					

Preceptor summary comments: Please provide a summary of student's strengths and areas requiring further development.

Mid-Term Evaluation	Final Evaluation
Strengths:	Strengths:
Area of development:	Area of development:
Preceptor: _____ Student: _____ Advisor: _____ (signatures) Date: _____	Preceptor: _____ Student: _____ Advisor: _____ (signatures) Date: _____

Student: _____ Student Number: _____

Practicum Site: _____ Preceptor(s): _____

Clinical Dates: _____ Advisor: _____

	Practice 80%	Grade	Value
A.1. Performs and refines client assessments			
A.2. Develops client focused plans of care			
A.3. Applies knowledge			
A.4. Teaches and verifies learning			
A.5. Provides client centered care			
A.6 Organizes client assignments			
A.7 Evaluates client progress			
A.8 Communicates effectively			
A.9 Documents effectively			
B.1 Demonstrates accountability			
B.2. Demonstrates professional conduct			
B.3Developing own competence			
	Mid practicum exemplar 20 %		
(total practice value / 12 X .8) + (mid term assignment X .2) =			
	Final Grade		

Advisor comments:

Student: _____
(signatures)

Advisor: _____
(signatures)

Course Leader: _____
(signatures)

Date: _____

Appendix D

QUICK PRECEPTOR REFERENCE GUIDE

University of Manitoba
Faculty of Nursing

The following guide provides information and answers to questions frequently asked by preceptors about the senior practicum course.

How to Prepare for the Preceptor Role: The following suggestions will help you prepare to carry out the functions of a preceptor:

1 Review the course syllabus, evaluation tool, and Preceptor Handbook. Your student's Faculty

Advisor will provide these, go over them with you and answer any questions.

2. If possible attend a Preceptor Workshop. These day long workshops are offered by the Faculty free-of-charge. Notices of dates and locations are sent to unit managers at all placement sites.

3. Clarify your student's learning objectives by reviewing the student's practicum proposal and cover letter. Students will provide these to you approximately before the start of the practicum.

This information will help you get to know the student and plan their experience.

How to Orientate Your Student: Preceptors should ensure that students are well oriented to: 'the physical lay-out; 'location of supplies and equipment, 'policies and procedures; 'emergency procedures; 'nursing roles and responsibilities; 'organization of the health care team in your area.

How to Organize Your Students Assignments: Patient assignments, responsibilities and expectations for independent functioning should be gradually increased during the placement. The following is recommended in most circumstances: start by having your student assist you with your assignment for a few days; then, assign the student a small number of your less complex patients; once they are managing this well, gradually increase the number and the complexity of the patient assignment.

What to Expect of the Student: At approximately the mid way point of the practicum students are expected to manage 50-75% of a typical workload assignment competently, confidently and independently, at the beginning practitioner level,. This expectation increases to 75-100% by the end of the practicum. These expectations may vary in special care areas such as Emergency Depts. and L&D units
Students are expected to follow all institutional policies regarding issues such as dress, conduct, and limitations on student practice. They are also expected to contact their faculty advisor on a regular basis.

How to Evaluate Your Student: Your input into your student's clinical performance evaluation is crucial not only for the grading process but for the students continued growth and progress. Plan to complete the evaluation form at or near the times indicated in the syllabus.

Daily post-shift debriefings are recommended to provide the student with on-going positive and negative feedback and strategies for improvement. Concerns should promptly be made known to both the student and the faculty advisor.

Remember - Your student is performing in a full-time nursing role for the first time and will require many more years to reach your level of experience and expertise.

Student/Preceptor Relationship: Preceptors mentor, supervise the student and plan and coordinate their experience. Your most important roles are:

- 1) Learning resource,
- 2) Clinical teacher, when new procedures are introduced or when those previously learned require supervised review;
- 3) Professional role model. The preceptors professional behaviour, e.g. dress, whether they introduce themselves to patients, their communication style, how they handle interpersonal conflict, and deal with mistakes can have a profound influence on the student.

Faculty Advisor/Preceptor Relationship: Each student is assigned to a faculty advisor who can assist you in planning the student experiences, with evaluations, in identifying problems areas in the student's performance and in developing and implementing strategies to deal with them. Faculty advisors should be contacted immediately whenever:

- 1) You identify a pattern or single occurrence of unsafe behaviour (see syllabus for Unsafe Practice Policy);
- 2) If you have other repeated concerns regarding the students psychomotor skills, knowledge base, organizational, decision-making, communication abilities, or their professional conduct;
- 3) If the student becomes ill or injured at work;
- 4) Whenever you have any questions or concerns about the program, the course or the students general preparation; and
- 5) If the student fails to arrive for an assigned shift without notice.

Please rely on the faculty advisor as an academic resource and support throughout the practicum.

Other Frequently Asked Questions:

How long is the practicum?

The practicum length is based on a full-time 38.75 hour work week for a total of 450 hours. It is approximately 12 weeks in length although some shift rotations will provide the required hours over a shorter period.

Do preceptors have an opportunity to evaluate the course?

Yes. You will receive a course evaluation form by mail, along with a thank-you letter, after completion of the practicum.

How are preceptors chosen?

Ideally preceptors are chosen for their clinical expertise, their professional behaviour and their interest and willingness to work with students. The Faculty relies on unit managers to identify and recommend nurses for the preceptor role.

Your student's name is _____

Your student's faculty advisor is _____

Phone: (bus) _____ (res) _____

E-mail: _____

Best times to contact advisor: _____

Thank -you for your interest in the preceptor role. Consult the course syllabus for additional details.

Appendix E
LETTER TO THE DEAN

Dauna Crooks, RN, PhD
Dean, Faculty of Nursing
University of Manitoba
Dear Dean Crooks,

My name is Abeer A. Alraja. I am a MN student in the nursing administration stream in the Faculty of Nursing, University of Manitoba. My advisor is Dr. Lorna Guse, my internal member is Dr. Judy Scanlan, my external member is Dr. Orest Cap (Faculty of Education), and my clinical member is Jo-Ann Lapointe McKenzie. I intend to conduct a thesis study titled, "Undergraduate nursing students' perceptions of the psychosocial characteristics of the clinical learning environment". The purpose of this study is to investigate nursing students' perceptions of their clinical learning environment and their suggestions to enhance it.

In order to conduct the study purpose, I intend to collect the data from senior practicum nursing students (NURS 4290) in the Faculty of Nursing. Therefore, I would like your permission to access students who are enrolled in the fall 2010 and winter 2011 senior practicum (NURS 4290) in two ways. First, I wish to directly distribute the questionnaires (see attached cover page and questionnaire) through the NURS 4290 faculty advisors to the students at the time of their final evaluation. I am attaching my letter to the NURS 4290 course leaders, Rae Harwood (fall 2010) and Marilyn Kimczak (winter 2011) that outlines the recruitment protocol and asks for their assistance. Second, I wish to make the questionnaire available through surveymonkey.

For the first process, with your permission, I would need the assistance from the MCNCR to send 3 e-mails to senior practicum students (the e-mails are attached). I am requesting that the MCNCR research assistant send the first email two weeks prior to the end of the course; this email provides information on the study and an invitation to participate by completing the questionnaire through the internet using surveymonkey. The second e-mail will again provide information and a second invitation to participate by reminding students to participate by completing the questionnaire on survey monkey. The third e-mail will be sent after the successful defence of the thesis in order to inform NURS 4290 students about the findings of the thesis.

For the second process, my advisor, Dr. Guse has spoken with James Plohman at the Manitoba Centre for Nursing and Health Research (MCNHR) about the procedure whereby the MCNHR manages the surveymonkey data collection as has been done for other researchers in the Faculty of Nursing. I am attaching my letter to the MCNHR.

I would appreciate hearing from you as soon as possible. If you require any other information, I would be pleased to provide it.

This study has been approved by the Education Nursing Research Ethics Board. If you have any concerns or complaints about this project, please contact me (xxx-xxxx) or my advisor, Dr. Guse (xxx-xxxx) or the Human Ethics Secretariat at xxx-xxxx or email xxxxxx@umanitoba.ca

Thank you very much.
Sincerely,
Abeer Alraj

Appendix F
**E-MAILS OF INFORMATION SENT BY THE MCNHR REASRCH ASSISTANT
TO SENIOR PRACTICUM STUDENTS**

Dear senior practicum students,

This email is being sent by the undergraduate program assistant on behalf of Abeer Alraja.

My name is Abeer A. Alraja, a Master's student in the nursing administration stream in the Faculty of Nursing at the University of Manitoba. I am conducting a research study as part of the requirements of my Master's degree. And I would like to invite you to participate. My thesis advisor is Dr. Lorna Guse. The title of my thesis is, "Undergraduate nursing students' perceptions of the psychosocial characteristics of the clinical learning environment during their clinical placement".

The purpose of my master's thesis study is to investigate nursing students' perceptions of their clinical learning environment and their suggestions to enhance it. You have been selected to participate in this study because you are a NURS 4290 senior practicum student who has completed the program. You are being asked to complete the questionnaire by clicking on the link below. The questionnaire asks about your perceptions regarding your preferred and actual clinical placement experience. You are also being asked to answer two questions related to how your clinical experience could have been enhanced. It should take approximately 20 minutes or less to complete the questionnaire. After you have completed the questionnaire it goes to the Manitoba Centre for Nursing and Health Research (MCNHR) in the Faculty of Nursing. Please be assured that your responses on the questionnaires are confidential and staff at MCNHR who will be printing the completed questionnaires have signed a pledge of confidentiality. Abeer Alraja and her committee members will see the questionnaires without any personal identifiers so we will not know who answered the questionnaires. At the end of the questionnaire, you will have an opportunity to enter a draw for a \$20 coffee card. Please be assured that this draw again will be handled completely by the MCNHR and not by me or my committee.

There are no risks for your participation. There may be benefits for future students in the undergraduate program. The answers that you provide will be analyzed in aggregate form and the results from the thesis will be provided to nursing educators and managers to assist their further development and planning of clinical placements. Results of this study will also be presented at scholarly conferences and in publications.

If you have any questions about the study, you may ask the investigator or her advisor at the contact information given below. You are free to refuse to participate or to answer any of the questions. This research has been approved by the Education Nursing

Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the below-named persons or the Human Ethics Secretariat at 474-7122. Please keep a copy of this invitational e-mail for your records and reference. If you complete the questionnaire, this is considered to be your voluntary informed consent to participate.

(The link for the questionnaire will be provided here)

All students in NUR 4290 Senior Practicum will be receiving a summary of findings once the analysis of the data is complete through an email from the undergraduate program assistant.

Abeer A. Alraja

Dr. Lorna Guse

Appendix G
THE QUESTIONNAIRE

Letter of information to Senior Practicum (NURS 4290) Students

I am Abeer A. Alraja, a Master's student in nursing administration stream in the Faculty of Nursing at the University of Manitoba. The title of my thesis is "Undergraduate nursing students' perceptions of the psychosocial characteristics of the clinical learning environment during their clinical placements". The purpose of my master's thesis study is to investigate nursing students' perceptions of their clinical learning environment and their suggestions to enhance it. My thesis advisor is Dr. Lorna Guse.

I am sensitive to the issues of privacy and voluntariness of approaching you regarding participation. Therefore, this envelope and questionnaire have been given to you by your faculty advisor. The faculty advisor is not an investigator in this study and is simply giving you the envelope and questionnaire so that you can choose to participate or not to participate. You are being asked to participate in this study because you are a NURS 4290 senior practicum student who has completed the program. You are being asked to complete this questionnaire which asks about your perceptions regarding your preferred and actual clinical placement experience. You are also being asked to answer two questions related to how your clinical experience could have been enhanced. It should take approximately 20 minutes or less to complete the questionnaire. After you have completed the questionnaire, please place it in the mail or take it to Manitoba Centre for Nursing and Health Research in the Faculty of Nursing. Only staff of the MCNHR will know who has chosen to complete the questionnaire. Please be assured that your responses on the questionnaires are confidential and staff at MCNHR who will be collecting the questionnaires have signed a pledge of confidentiality. Abeer Alraja and her advisor will get the questionnaires without individual identifiers. Abeer Alraja and her advisor will only see the anonymous questionnaires. The hard copy questionnaires will be destroyed by the MCNHR in confidential waste after the successful defense of the thesis. The data on my memory stick, my computer, and my advisor's memory stick will be deleted five years after I successfully defend my thesis. You will have an opportunity to enter a draw for a \$20 coffee card by filling your name and e-mail on the last page of the questionnaire. If you decide to enter the draw for the coffee card, please be assured that this draw will be handled completely by the MCNHR.

There are no risks for your participation. There may be benefits for future students in the undergraduate program. The answers that you provide will be analyzed in aggregate form and the results from the thesis will be provided to nursing educators and managers to assist their further development and planning of clinical placements. Results of this study will also be presented at scholarly conferences and in publications.

I'm asking for your participation. If you have any questions about the study, you may ask the investigator or her advisor at the contact information given below. You are free to refuse to participate or to answer any of the questions. This research has been approved by the Education Nursing Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the below-named persons or the Human Ethics Secretariat at xxx-xxxx. Please keep a copy of this invitational letter for your records and reference. If you complete the questionnaire and send it to the MCNHR, this is considered to be your voluntary informed consent to participate. Please note that all NURS 4290 Senior Practicum students also will be receiving an email from James Plohman, Research Technician at the Manitoba Centre for Nursing and Health Care Research that invites you to complete this same questionnaire through surverymonkey. If you have completed and returned/mailed this hard copy of the questionnaire, please disregard the email invitation from Mr. Plohman.

All students in NUR 4290 Senior Practicum will be receiving a summary of findings once the analysis of the data is complete through an email from James Plohman.

Thank you for your participation.

Abeer A. Alraja

Dr. Lorna Guse

Demographic Data

Age: _____

Gender: Male Female

Type of Placement: Medical-Surgical Units
 Personal Care Homes
 Community
 Other (please specify): _____

Third year nursing courses taken on: Fort Garry Campus
 Red River College Campus

Thank you.
Please turn to  see next page

Clinical Learning Environment Inventory

The purpose of this questionnaire is to collect your opinions about your clinical practice on two conditions 1) your ACTUAL clinical experience in your senior practicum (NURS 4290), and 2) your PREFERRED clinical experience in your senior practicum (NURS 4290). Please circle the appropriate answer as instructed below under each of the 2 conditions (circle both conditions for each statement):

SA if you STRONGLY AGREE
 A if you AGREE
 D if you DISAGREE
 SD if you STRONGLY DISAGREE

	1. Your <u>ACTUAL</u> experience in your senior practicum				2. Your <u>PREFERRED</u> experience in your senior practicum			
	Strongly Agree	Agree	Disagree	Strongly Disagree	Strongly Agree	Agree	Disagree	Strongly Disagree
1. The preceptor(s) usually consider my feelings.	SA	A	D	SD	SA	A	D	SD
2. The preceptor(s) talk rather than listen to me.	SA	A	D	SD	SA	A	D	SD
3. I look forward to attending clinical placement.	SA	A	D	SD	SA	A	D	SD
4. I know exactly what has to be done in this clinical setting	SA	A	D	SD	SA	A	D	SD
5. New ideas are seldom tried out.	SA	A	D	SD	SA	A	D	SD
6. I am expected to do the work in the same way as other students.	SA	A	D	SD	SA	A	D	SD
7. The preceptor(s) talk with me personally.	SA	A	D	SD	SA	A	D	SD
8. I put effort into what I do.	SA	A	D	SD	SA	A	D	SD
9. I am dissatisfied with what is done.	SA	A	D	SD	SA	A	D	SD
10. Getting work done is important in this setting.	SA	A	D	SD	SA	A	D	SD
11. Different ways of teaching are seldom used.	SA	A	D	SD	SA	A	D	SD
12. I am generally allowed to work at my own pace.	SA	A	D	SD	SA	A	D	SD
13. The preceptor(s) try his/her very best to help me.	SA	A	D	SD	SA	A	D	SD
14. I can't wait to the end of every shift.	SA	A	D	SD	SA	A	D	SD
15. I have a sense of satisfaction with this clinical placement.	SA	A	D	SD	SA	A	D	SD
16. The preceptor(s) instructions often get sidetracked.	SA	A	D	SD	SA	A	D	SD
17. Innovative activities are always arranged for me.	SA	A	D	SD	SA	A	D	SD
18. I usually have a say in how the shift is spent.	SA	A	D	SD	SA	A	D	SD
19. The preceptor(s) help me whenever I have trouble.	SA	A	D	SD	SA	A	D	SD
20. I pay attention to the communication among staff.	SA	A	D	SD	SA	A	D	SD
21. This clinical placement is a waste of time.	SA	A	D	SD	SA	A	D	SD
22. This is a disorganized clinical placement.	SA	A	D	SD	SA	A	D	SD

	1. Your <u>ACTUAL</u> experience in your senior practicum				2. Your <u>PREFERRED</u> experience in your senior practicum			
	Strongly Agree	Agree	Disagree	Strongly Disagree	Strongly Agree	Agree	Disagree	Strongly Disagree
23. The preceptor(s) used different teaching methods to guide me.	SA	A	D	SD	SA	A	D	SD
24. I am allowed to negotiate my workload.	SA	A	D	SD	SA	A	D	SD
25. The preceptor(s) seldom go around talking to me.	SA	A	D	SD	SA	A	D	SD
26. I have little opportunity of handing over to the next shift.	SA	A	D	SD	SA	A	D	SD
27. This clinical placement is boring.	SA	A	D	SD	SA	A	D	SD
28. Clinical tasks assigned to me are always clear.	SA	A	D	SD	SA	A	D	SD
29. My assigned clinical activities are always the same.	SA	A	D	SD	SA	A	D	SD
30. I am allowed to proceed at my own pace.	SA	A	D	SD	SA	A	D	SD
31. The preceptor(s) do not bother with my feelings.	SA	A	D	SD	SA	A	D	SD
32. I have opportunities to express opinions.	SA	A	D	SD	SA	A	D	SD
33. I enjoy coming to this clinical setting.	SA	A	D	SD	SA	A	D	SD
34. Routine activities are clearly explained.	SA	A	D	SD	SA	A	D	SD
35. The preceptor(s) often plan interesting activities.	SA	A	D	SD	SA	A	D	SD
36. I have little opportunity to pursue my interests.	SA	A	D	SD	SA	A	D	SD
37. The preceptor(s) are inconsiderate towards me.	SA	A	D	SD	SA	A	D	SD
38. I seldom involve myself actively during debriefing sessions.	SA	A	D	SD	SA	A	D	SD
39. This clinical placement is interesting.	SA	A	D	SD	SA	A	D	SD
40. My assigned activities are carefully planned.	SA	A	D	SD	SA	A	D	SD
41. I do the same type of tasks in every shift.	SA	A	D	SD	SA	A	D	SD
42. The preceptor(s) do not negotiate when assigning my activities.	SA	A	D	SD	SA	A	D	SD

Thank you.
Please turn to
see next page →

Finally, we would like you to complete two open-ended questions about how your clinical experience could have been enhanced.

1. Thinking back, what kinds of things would have given you a better learning experience?

2. From your experience, what were the obstacles or the things that did not support your learning in the clinical setting?

You are invited to participate in three draws for a \$20 coffee card. Please provide your name and email address on this page if you wish to have your name entered in the draw.

Name: _____

Email address: _____

Appendix H
FREQUENCY DISTRIBUTION OF THE ITEMS

Personalization (Actual):

- #1 The preceptor(s) usually consider my feelings (m= 4.46, SD= 0.67)
- #7 The preceptor(s) talk with me personally. (4.39, 0.67)
- #13 The preceptor(s) try his/her very best to help me. (4.56, 0.59)
- #19 The preceptor(s) help me whenever I have trouble (4.48, 0.60)
- #25 The preceptor(s) seldom go around talking to me (3.15, 1.39)
- #31 The preceptor(s) do not bother with my feelings (3.34, 1.41)
- #37 The preceptor(s) are inconsiderate towards me. (3.56, 1.47)

Personalization (Preferred):

- #1 The preceptor(s) usually consider my feelings (m= 4.62, SD= 0.49)
- #7 The preceptor(s) talk with me personally. (4.61, 0.59)
- #13 The preceptor(s) try his/her very best to help me. (4.77, 0.42)
- #19 The preceptor(s) help me whenever I have trouble (4.64, 0.48)
- #25 The preceptor(s) seldom go around talking to me (3.44, 1.47)
- #31 The preceptor(s) do not bother with my feelings (3.36, 1.50)
- #37 The preceptor(s) are inconsiderate towards me. (3.82 1.46)

Student Involvement (Actual)

- #2 The preceptor(s) talk rather than listen to me. (2.62, 1.17)
- #8 I put effort into what I do. (4.70, 0.46)
- #14 I can't wait to the end of every shift (2.85, 1.34)
- #20 I pay attention to the communication among staff (4.48, 0.50)
- #26 I have little opportunity of handing over to the next shift. (3.00, 1.40)
- #32 I have opportunities to express opinions (4.16, 0.66)
- #38 I seldom involve myself actively during debriefing sessions. (2.87, 1.29)

Student Involvement (Preferred)

- #2 The preceptor(s) talk rather than listen to me. (2.97, 1.33)
- #8 I put effort into what I do.(4.80, 0.40)
- #14 I can't wait to the end of every shift (2.93, 1.37)
- #20 I pay attention to the communication among staff (4.61, 0.50)
- #26 I have little opportunity of handing over to the next shift.(3.30, 1.48)
- #32 I have opportunities to express opinions (4.51, 0.50)

#38 I seldom involve myself actively during debriefing sessions. (3.07, 1.40)

Satisfaction (Actual)

#3 I look forward to attending clinical placement (4.21, 0.76)

#9 I am dissatisfied with what is done (3.08, 1.45)

#15 I have a sense of satisfaction with this clinical placement (4.33, 0.79)

#21 This clinical placement is a waste of time. (3.80, 1.47)

#27 This clinical placement is boring. (3.89, 1.44)

#33 I enjoy coming to this clinical setting. (4.26, 0.77)

#39 This clinical placement is interesting.(4.51, 0.60)

Satisfaction (Preferred)

#3 I look forward to attending clinical placement (4.59, 0.59)

#9 I am dissatisfied with what is done (3.61, 1.53)

#15 I have a sense of satisfaction with this clinical placement (4.72, 0.55)

#21 This clinical placement is a waste of time. (4.20, 1.33)

#27 This clinical placement is boring. (4.34, 1.24)

#33 I enjoy coming to this clinical setting. (4.66, 0.48)

#39 This clinical placement is interesting.(4.69, 0.47)

Task Orientation (Actual)

#4 I know exactly what has to be done in this clinical setting (3.85, 0.96)

#10 Getting work done is important in this setting (4.56, 0.67)

#16 The preceptor(s) instructions often get sidetracked (2.51, 1.06)

#22 This is a disorganized clinical placement (3.51, 1.50)

#28 Clinical tasks assigned to me are always clear (3.87, 0.87)

#34 Routine activities are clearly explained. (4.11, 0.71)

#40 My assigned activities are carefully planned (3.51, 1.03)

Task Orientation (Preferred)

#4 I know exactly what has to be done in this clinical setting (4.57, 0.50)

#10 Getting work done is important in this setting (4.66, 0.48)

#16 The preceptor(s) instructions often get sidetracked (2.84, 1.32)

#22 This is a disorganized clinical placement (4.20, 1.33)

#28 Clinical tasks assigned to me are always clear (4.43, 0.59)

#34 Routine activities are clearly explained. (4.52, 0.50)

#40 My assigned activities are carefully planned (4.07, 0.77)

Teaching Innovation (Actual)

- #5 New ideas are seldom tried out. (2.79, 1.13)
- #11 Different ways of teaching are seldom used. (2.82, 1.18)
- #17 Innovative activities are always arranged for me. (3.11, 1.10)
- #23 The preceptor(s) used different teaching methods to guide me. (3.84, 0.84)
- #29 My assigned clinical activities are always the same. (2.80, 1.24)
- #35 The preceptor(s) often plan interesting activities. (3.30, 1.09)
- #41 I do the same type of tasks in every shift. (2.90, 1.21)

Teaching Innovation (Preferred)

- #5 New ideas are seldom tried out. (3.11, 1.42)
- #11 Different ways of teaching are seldom used. (3.20, 1.42)
- #17 Innovative activities are always arranged for me. (3.97, 0.98)
- #23 The preceptor(s) used different teaching methods to guide me. (4.34 0.57)
- #29 My assigned clinical activities are always the same. (2.98, 1.35)
- #35 The preceptor(s) often plan interesting activities. (4.15, 0.85)
- #41 I do the same type of tasks in every shift. (2.98, 1.31)

Individualisation (Actual)

- #6 I am expected to do the work in the same way as other students (2.84, 1.11)
- #12 I am generally allowed to work at my own pace (3.82, 0.99)
- #18 I usually have a say in how the shift is spent. (3.61, 1.16)
- #24 I am allowed to negotiate my workload. (3.69, 1.04)
- #30 I am allowed to proceed at my own pace. (3.70, 1.05)
- #36 I have little opportunity to pursue my interests (3.02, 1.23)
- #42 The preceptor(s) do not negotiate when assigning my activities (3.02, 1.31)

Individualisation (Preferred)

- #6 I am expected to do the work in the same way as other students (2.92, 1.31)
- #12 I am generally allowed to work at my own pace (4.30, 0.78)
- #18 I usually have a say in how the shift is spent. (4.11, 0.90)
- #24 I am allowed to negotiate my workload. (4.11, 0.90)
- #30 I am allowed to proceed at my own pace. (4.21, 0.76)
- #36 I have little opportunity to pursue my interests (2.97, 1.37)
- #42 The preceptor(s) do not negotiate when assigning my activities (3.05, 1.38)

Appendix I
QUALITATIVE RESPONSES LINKED WITH CLEI SCALES

CLEI Scales	Categories
Personalisation	#6 Clinical staff & unit environment
Student involvement	#9 Working or interacting with other staff
Satisfaction	#1 Generic positive comments #4 Fatigue and scheduling
Task Orientation	33 Time #5 Variation in tasks #8 Learning opportunities
Teaching innovation	#2 Preceptor
Individualization	#7 Self-directed learning and independence