

NURSING STUDENTS' PERCEPTIONS OF
EFFECTIVE CLINICAL TEACHER BEHAVIOURS

by

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BScN, McMaster University, 1988

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTERS OF SCIENCE IN NURSING

in

THE FACULTY OF GRADUATE STUDIES

School of Nursing

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

October 1994

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Abstract

This study sought to identify nursing students' perceptions of effective clinical teacher behaviours, and to determine whether novice and advanced beginner students perceive different teacher behaviours as effective. The theoretical framework for the study drew on the concepts of clinical teacher behaviours (Reilly & Oermann, 1992), students' perceptions (Woodruff, 1967), and the competency levels of the students (Benner, 1984). The study took place in selected colleges and university colleges within British Columbia, collaborating to develop and implement a 'caring curriculum' (Bevis & Watson, 1989). The study sample included 83 students enrolled in their third term, who were considered novices, and 55 students enrolled in their sixth term, who were considered advanced beginners. Data were collected through the use of two instruments: the Priority Clinical Teacher Behaviour Questionnaire; and the Nursing Clinical Teacher Effectiveness Inventory.

Results of the study indicated that all students emphasized the need for clinical teachers to be knowledgeable, demonstrate clinical skill and judgment, be approachable, provide support, and be open minded and non-judgmental. Novice and advanced beginner students shared many of the same perceptions regarding effective clinical

teacher behaviours, although certain differences were evident. Novice students placed more emphasis than advanced beginner students did on teacher behaviours of being caring, giving positive feedback, and demonstrating clinical skill and judgment. Advanced beginner students, on the other hand, placed more emphasis on teacher behaviours of taking responsibility for their actions, and being honest, enthusiastic, and nonjudgmental. Analysis also revealed a subset of behaviours emphasized by advanced beginner students. Statistically significant ($p < .05$) differences were found between advanced beginner and novice ratings of certain categories of teacher behaviours, such as personal characteristics, interpersonal skills, and evaluation. Students' perceptions were also found to vary somewhat across sites. While some of these findings supported research previously conducted in the area, other findings offered a new perspective on students' perceptions of effective clinical teacher behaviours.

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Acknowledgements

This thesis would not be complete without the acknowledgement of certain individuals. I extend my gratitude to the members of my thesis committee, Carol Jillings and Linda Leonard, for all of their time and valuable feedback. Many thanks to Kevin Craib for sharing his statistical knowledge and expertise. To my mom and dad, your support and words of encouragement have meant a great deal. Many thanks, as well, to the numerous faculty at all three sites who facilitated data collection, and to the students who generously offered their time and viewpoints. I am also grateful for the funding received from Langara College for this project.

Finally, two other individuals have been instrumental in the development and completion of this thesis. My deepest appreciation goes to the chair of my thesis committee, Anne Wyness, for her endless encouragement, support, feedback, and time. Finally, my heartfelt gratitude goes to my husband Rod, for his constant understanding and love, and for developing his housekeeping and culinary skills while I completed my MSN.

CHAPTER ONE

Introduction

Background to the Study

The clinical experience has long been recognized as a significant and essential component of nursing education. Because of the importance of clinical learning experiences, and because resources are limited, students must optimize clinical practice opportunities. They must therefore work with effective clinical teachers (Mogan & Knox, 1987).

Nurse educators have a responsibility not only to their students, but also to clients and the nursing profession to identify and exhibit effective clinical teacher behaviours (Zimmerman, 1986). Most clinical teachers in nursing, however, have had little formal preparation for this complex teaching role (Meleca, Schimpfhauser, Witterman & Sach, 1981). Clinical teachers are trained primarily in the theoretical and technical aspects of their role, relying on practical experience for their teaching skills, or teaching according to how they were taught (Beck, Youngblood & Stritter, 1988; MacDonald-Clarkson, 1986). As a result, many clinical teachers may be less than effective.

The determination of what constitutes an effective clinical teacher presents a unique challenge. Part of this challenge is related to varying

perceptions regarding teacher effectiveness. Studies investigating student and faculty views indicate a diversity of perceptions concerning what constitutes effective clinical teacher behaviours (Bergman & Gaitskill, 1990; Jarski, Kullig & Olson, 1989; Mogan & Knox, 1985, Mogan & Knox, 1987; Pugh, 1988).

Interest in this study stemmed not only from the limited nursing research in this area, but also from the researcher's personal experience as a clinical teacher in nursing. While striving for excellence in clinical teaching, this researcher attempted to understand the clinical teacher behaviours that were most effective, and therefore promote learning. The diversity of perceptions in this area, however, made the identification of effective behaviours a difficult task. Furthermore, little is known about the clinical teacher behaviours valued by students at different competency levels. Thus, no clear direction is provided for the teacher who attempts to adjust his/her behaviours to different student levels.

Three factors which may influence student perceptions of effective clinical teacher behaviours have been identified in the literature. One factor relates to current trends in nursing education, particularly concepts inherent in the "curriculum revolution" (Bevis & Watson, 1989; de Tornyay, 1990; Tanner, 1990). Teachers and students are shifting from their traditional roles, becoming partners in learning (Bevis & Watson). Thus, renewed focus is on the student-teacher relationship. As the process of learning in nursing education is changing, perceptions of students may also be changing. It is valuable, therefore,

to reexamine teacher behaviours which were previously considered effective (de Tornyay, 1990).

A second factor which may influence student perceptions of effective clinical teacher behaviours is the competency level of the student. The competency level of the student, as used in this study, refers to the level of the student within the program. It is generally accepted that students at different competency levels have different learning needs. It is unclear, however, whether a student's level of competency influences his/her perception of clinical teacher behaviours. Students who differ in competency level and learning needs may have different perceptions of what constitutes an effective clinical teacher.

A third factor which may affect student perceptions of effective clinical teacher behaviours is increasing student diversity. Today's nursing students are more diverse not only in sociocultural and economic status, but also in life experience, educational background, and maturity (Anderson & Adams, 1992). Thus, teacher behaviours that were considered effective twenty years ago may not be appropriate with today's students (de Tornyay, 1990).

If nurse educators understand students' perceptions of effective clinical teacher behaviours, they can optimize those behaviours which students at various competency levels consider effective, thus improving or maintaining the quality of their teaching.

Statement of the Research Problem

Nursing students' perceptions of the clinical experience in general, and more specifically, their perceptions of effective clinical teaching have not been examined extensively. Moreover, it is unclear whether students' perceptions of effective clinical teacher behaviours are influenced by their competency level as they advance through the program. Because teacher behaviours have a direct impact on student learning at all competency levels (Wells & Higgs, 1990), nurse educators must understand students' perceptions of effective clinical teacher behaviours.

Theoretical Framework

The theoretical framework for the study draws on concepts derived from the works of Benner (1984), Reilly and Oermann (1992), and Woodruff (1967). Interactions between teachers and students drive the teaching-learning process. While many factors exist which may impinge on this process, and may ultimately affect learning outcomes, three major concepts form the framework for this study. The first concept is clinical teacher behaviours. The second concept is the student's perception of these teacher behaviours. The third and final concept is the level of competency of the student.

Clinical Teacher Behaviours

The literature suggests that effective clinical teachers exhibit a variety of teacher behaviours that can be categorized (Bergman & Gaitskill, 1990; Fong & McCauley, 1993; MacDonald-Clarkson, 1986;

Mogan & Knox, 1985; Reilly & Oermann, 1992). One category of teacher behaviour is knowledge and clinical competence. The effective teacher exhibits behaviours which indicate extensive, up-to-date knowledge and clinical skills, and the ability to communicate this knowledge and these skills to students. The teacher analyzes theories, is able to synthesize from a number of sources, and promotes students' conceptual understanding. Acting as a role model, the teacher demonstrates expert clinical judgment (Fong & McCauley, 1993; Reilly & Oermann, 1992).

A second category of teacher behaviour is teaching skill. This category includes behaviours such as: presenting material and providing demonstrations in a clear and organized manner, asking questions which stimulate learning, answering questions clearly, helping students organize their thoughts about patient problems, and being well prepared for the clinical experience (Fong & McCauley, 1993; Mogan & Knox, 1985, Reilly & Oermann, 1992).

A third category of teacher behaviour relates to the teacher-student relationship. The effective teacher has interpersonal relationships with students that are characterized by warmth, mutual respect, caring, and openness. The teacher who possesses effective teaching behaviours in this category also listens attentively to students, is supportive, approachable, and encourages students to question, challenge, and actively pursue knowledge (Mogan & Knox, 1985, Reilly & Oermann, 1992).

A fourth category of teacher behaviour is personal characteristics. The effective teacher has behaviours which indicate personal characteristics of: enthusiasm, dynamism, humour, being friendly, cooperative, admitting mistakes and limitations, being flexible and patient, and commitment to teaching and to nursing (Mogan & Knox, 1985; Reilly & Oermann, 1992).

A final category of teacher behaviour is evaluation. The effective teacher is one who gives specific, frequent feedback containing positive and constructive elements, makes specific suggestions for improvement, and corrects student mistakes without belittling them (Mogan & Knox, 1985).

According to Reilly and Oermann (1992), effective clinical teachers possess a variety of behaviours which reflect all of the above areas. The researcher presumes that in order for nursing students to view a clinical teacher as effective, the above behaviours must also be evident to the student. Whether these behaviours are apparent to the student depends not only on the teacher, but also on the perception of the student.

Student Perceptions of Clinical Teacher Behaviours

The concept of student perceptions of effective clinical teacher behaviour draws on elements of Woodruff's (1967) model of behaviour and learning.

Individuals receive immense amounts of stimulation from a variety of sources (Woodruff, 1967). This information is selectively filtered. Only

that information which has personal meaning is stored, forming concepts which later become the basis for decision-making and action (Van Hoozer, 1987; Woodruff, 1967).

In the clinical setting, a nursing student receives much stimulation. This stimulation may come from a variety of sources, including: content provided by the teacher, written material such as kardexes, charts, and student assignments, the clinical environment, including clients, staff, the clinical teacher, and the clinical setting. Additionally, the student receives stimulation from his/her own feelings, which may focus on any part of the teaching/learning process or clinical experience, as well as interactions with the clinical teacher, clients, peers, and other health care professionals (Dalme, 1983; Windsor, 1987).

According to Woodruff's model (1967), the nursing student filters the received information, including behaviours that the clinical teacher exhibits. Those teacher behaviours which have less impact or meaning for the student are discarded, while those which have more meaning are stored. This enables the student to form a concept of the effectiveness of certain clinical teacher behaviours. In this way, the student formulates his/her own idea of what constitutes an effective clinical teacher. As the student forms his/her own concept of effective clinical teacher behaviours, he/she is able to communicate this concept to others.

A student's individual perception of what constitutes effective clinical teacher behaviour may also be influenced by other factors. Van

Hoozer et al (1987) note that perceptual abilities are developed through maturation and learning. This researcher believes that a student's level of competency may influence his/her perception. If two students at different competency levels have very different learning needs, for example, the teaching behaviours that have the most impact on each student may also differ. For instance, a student who wishes to develop independence and critical thinking would likely focus on different teacher characteristics than the student who is performing a skill for the first time.

Student Levels of Competency

The final concept, which is drawn from Benner's (1984) research, is student levels of competency. It is important to note that while Benner's work focussed on practicing nurses, the focus of this study was nursing students. Several researchers, however, successfully utilized Benner's work when studying nursing students (Carlson, Crawford, & Contrades, 1989; Downey, 1993; Monahan, 1991), demonstrating applicability of this work to the study population.

Based on Dreyfus' model of skill acquisition, Benner studied and identified levels of competency held by nurses in clinical practice as follows: novice, advanced beginner, competent, proficient, and expert. Because this study focussed on novices and advanced beginners only, the latter three levels of competency are not described.

Benner hypothesized that increasing levels of competency reflect changes in three aspects of skilled performance. She noted that her use

of the term 'skill' did not refer to psychomotor skills, but rather "the applied skill of nursing in actual clinical situations" (Benner, 1984, p 14). One change in skilled performance is from reliance on abstract principles to the use of past concrete experience as paradigms. A second change involves the learner perceiving the situation less as an accumulation of smaller components, and more as a complete whole in which only certain parts are relevant. A third change in skilled performance is a movement from detached observer to involved performer. An important assumption of Benner's research is that a skill is transformed through experience and mastery, bringing about improvement in performance (Benner).

The novice is described by Benner (1984) as having no experience or background understanding of the situation in which he/she is expected to perform. To gain competence, the novice learns in terms of context-free rules and objective features that can be recognized without situational experience.

Beginning nursing students are considered novices since they learn in terms of context-free rules and objective features. They have little experience as student nurses, and therefore have limited background understanding to draw upon (Downey, 1993). A novice level of competency impacts on many aspects of the students' learning processes. Because of their limited experience and understanding, novice students may value clinical teacher behaviours such as an ability to provide clear explanations and demonstrations, answer questions

effectively, and be clinically knowledgeable. Due to their lack of experience, novice students may place more importance on a teacher's ability to be supportive, open, warm, caring, and friendly, since these attributes presumably increase student comfort in the clinical setting.

The second stage of clinical competence is referred to as advanced beginner, and is characterized by learners who have had sufficient experience to recognize overall meaningful aspects of a situation (Benner, 1984). Senior students are considered advanced beginners since they have gained more clinical experience, and their competency in delivering nursing care has increased (Downey, 1993). The added experience and competency provides advanced beginner students with an ability to move somewhat from context-free rules. Instead they are able to recognize, sometimes with assistance, other significant aspects of a situation. Advanced beginners possess different learning needs than novices. Because of their greater clinical experience and ability to move away from context free rules, these students may value a clinical teacher who promotes independence, demonstrates expert clinical judgment, and who asks questions which stimulate learning.

Summary of the Conceptual Framework

Three concepts considered to play an integral role in the teaching/learning process are: teacher behaviours, student perceptions, and the competency level of the student. These concepts are interrelated. Individual perceptions cause students to filter out

meaningful teacher behaviours, allowing formulation of their own concept of effective clinical teacher behaviours. Additionally, students' competency level, reflective of learning needs, may influence their perception of effective clinical teacher behaviours.

Purpose

The purpose of the study was to determine the perceptions that novice and advanced beginner nursing students have about effective clinical teacher behaviours.

Research Questions

1. What are nursing students' perceptions of effective clinical teacher behaviours?
2. Do novice and advanced beginner students perceive different teacher behaviours as effective?

Definition of Terms

In the proposed study, the following definitions applied:

1. Clinical teacher: an instructor of nursing students in the clinical setting.
2. Nursing student: a student engaged in the study of nursing, presently enrolled in a nursing program preparatory to nurse registration.
3. Effective clinical teacher behaviours: actions, activities, and verbalizations of a clinical teacher that facilitate student learning by helping to meet learning needs (O'Shea & Parsons, 1979).
4. Competency level: a stage of skill acquisition, consistent with Benner's (1984) research.

5. Novice: a level of competency in which the learner possesses no background understanding of the situation, necessitating context-free rules for safe performance (Benner, 1984); beginning nursing students were considered to possess a novice level of competency.

6. Advanced beginner: a level of competency, where a learner has sufficient experience to recognize meaningful aspects of a situation (Benner, 1984) ; senior nursing students were considered to possess an advanced beginner level of competency.

Assumptions

The study was based upon five assumptions.

1. Novice and advanced beginner nursing students have enough experience as learners to be able to provide their perceptions of effective clinical teacher behaviours.

2. Novice and advanced beginner students have different levels competency, and therefore have different learning needs.

3. Students in the third term of their nursing program possess a novice level of competency, while students in the sixth term possess an advanced beginner level of competency.

4. Students perceive the effectiveness of teacher behaviours according to how well the teacher facilitates their learning, and contributes to the meeting of their learning needs.

5. The Nursing Clinical Teacher Effectiveness Inventory (N.C.T.E.I.) provides a measurement of student perceptions of effective clinical teacher behaviours.

Limitations

1. Due to a lack of random sampling, the results of the study are generalizable to the study population only.
2. Although previous reliability and validity of the N.C.T.E.I. had been established, they were not verified with the study sample.

Significance

Scientific significance.

The study contributes to the body of knowledge pertaining to nursing education, by helping to identify and describe nursing students' perceptions of effective clinical teachers. Since clinical teacher behaviours have impact on student learning outcomes, knowledge of student perceptions of the effectiveness of these behaviours is critical. Identification and understanding of these perceptions enhances the potential for improving student learning outcomes and the quality of clinical instruction.

Practical significance.

The study has implications for teaching and learning in the clinical setting. With an appreciation of students' perceptions across the levels of the program, clinical teachers can adapt teaching behaviours to groups of students possessing different competency levels. Thus, if nurse educators understand what teacher behaviours novice students value, teachers exhibiting these behaviours could work with novice students. Similarly, faculty exhibiting teacher behaviours considered effective by advanced beginner students could teach in the upper levels of the

program. In this way, teacher behaviours can be matched to student needs, thereby optimizing the teaching-learning experience.

Current changes in nursing education recognize the importance of student-teacher interactions. As these interactions drive the teaching-learning process, teachers must be effective if learning is to be maximized. By identifying students' perceptions of effective clinical teacher behaviours, this study may lead to the formation of workshops, seminars and faculty development sessions focussing on knowledge of effective clinical teacher behaviours, as many nurse educators lack formal education on how to teach (Beck, Youngblood & Stritter, 1988; MacDonald-Clarkson, 1986). Additionally, the study may lead to the inclusion of content related to effective clinical teacher behaviours into baccalaureate and graduate education, since many of these students are being prepared to assume teaching positions.

Finally, the study focussed on a number of educational facilities within British Columbia, who are collaborating to develop and implement a 'caring curriculum' based on current concepts and trends in nursing education. These concepts, including a renewed focus on the student-teacher relationship, and the creation of an egalitarian, individualized, and caring approach, warranted further exploration of students' views of effective clinical teacher behaviours. To date, however, no other research has been conducted on clinical teacher effectiveness within this context.

Summary

Research is limited concerning students' perceptions of effective clinical teacher behaviours. Moreover, little is known about whether student perceptions change as they advance through their nursing education. This study sought to determine nursing students' perceptions of effective clinical teacher behaviours, and to compare novice and advanced beginner students' perceptions. The study contributes to the development of knowledge in nursing education by providing nurse educators with knowledge of students' perspectives on teaching effectiveness in the clinical setting. This knowledge can be used to maintain or improve teaching effectiveness, thereby maximizing student learning.

CHAPTER TWO

Review of the Literature

Introduction

The following literature review is divided into two major sections. The first section reviews relevant literature and research related to student nurses' perceptions of the clinical experience. The second section considers literature pertaining specifically to clinical teacher behaviours. Within the latter section, studies examining different levels of students with respect to their perceptions of effective clinical teacher behaviours are discussed.

Student Nurses' Perceptions of the Clinical Experience

One factor which is believed to influence nursing students' perceptions of the clinical experience as a whole is increasing student diversity. Anderson and Adams (1992) note that nursing students are now more diverse in terms of sociocultural and economic status, life experience, maturity, and educational background than were students in the past. Johnson (1992) also reports the increasing diversity of today's nursing students, and stresses that traditional approaches to learning are often inappropriate with these 'nontraditional' students. He further indicates that with a partnership approach to learning between student and teacher, "students arrive better-prepared for both clinical and class, and ask more thoughtful questions...they work harder and more efficiently...and feel that what they have to say is valued" (p. 196). Thus,

today's diverse population of nursing students calls for a reexamination of teaching in the clinical experience that was previously considered effective.

Current concepts in nursing education, including the previously identified renewed focus on the student-teacher relationship, may also have impact on students' perceptions of effective clinical teacher behaviours. Advocates of these concepts in nursing education state that in order for students to provide care which will empower the client, they must experience empowerment in their role as learners (Bevis & Watson, 1989; de Tornyay, 1990). This means that "educators should not treat students as lay persons without valid experiences and abilities, but instead as active, self-aware participants" (Symonds, 1989, p. 53). Once a faculty member shifts to a more egalitarian relationship with students, teacher behaviours which most enhance learning must be reassessed, and student views regarding the learning experience must be known (Tanner, 1989). Teachers must therefore understand students' perspectives of not only effective teacher behaviours, but of the clinical experience as a whole.

Several studies have explored nursing students' perceptions of various aspects of the clinical experience. Windsor (1987) attempted to learn students' individual perceptions of the clinical experience as a whole by interviewing nine nursing students enrolled in their final semester at an American university. Using naturalistic inquiry, Windsor found that students talked about three general areas of learning: nursing skills, time

management, and professional socialization. Students indicated that the quality of their learning was related to the clinical teacher's behaviours, as well as to their own preparation for the clinical experience, opportunities in the clinical setting, and interdisciplinary relationships (Windsor, 1987). This study thus verified the impact clinical teacher behaviours have on student learning, and the importance of teaching effectively in the clinical setting.

Results of Windsor's (1987) study indicated that the subjects valued clinical teacher behaviours similar to those described in the conceptual framework. Students expressed a desire for clinical teachers who had high expectations and who were knowledgeable (teaching skill), professional, and demonstrated excellence in nursing skills (clinical competence), who were confident, respectful and supportive of students (interpersonal relationships), who were warm, and enthusiastic (personal characteristics), and who gave feedback in a timely manner (evaluation).

Dalme (1983) focussed on one particular aspect of the clinical experience that was included in Windsor's (1987) research. Dalme's study sought to determine the correlation, if any, between nursing students' perceptions of the influence of specific groups of people in the clinical setting and the development of professional identity. Two hundred and fifty students in their first and second year of a four year baccalaureate program completed a 73 item Likert-type scale questionnaire. Professional identity development was measured using

students' attitudes toward the nursing profession. Perceptions concerning the influence of peers, faculty, and staff were also measured. Findings of the study indicated that the first-year students were influenced predominantly by peers, whereas the second year students were influenced not only by peers, but by faculty and staff. Dalme (1983) suggests that as a student spends more time in the clinical area, different groups of people influence the development of his/her professional identity. Dalme further notes that, "since the student's perception of faculty and staff nurses seems to be related to professional identity development, there is a need to have the student associate with faculty and staff nurses who demonstrate excellence in the practice setting" (p. 143). Thus, it would appear that clinical teachers have influence not only on learning, but also on the development of nursing students' professional identities. The findings of this study support the need for effective clinical teacher behaviours, and for students' perceptions of these behaviours to be understood.

O'Reilly-Knapp (1994) explored a different aspect of student perceptions of the clinical experience. This researcher sought to determine the types of social support that baccalaureate nursing students desired and perceived as obtained from faculty during the clinical experience. Data were collected through the use of a questionnaire completed by 242 students, as well as interviews with 12 students. Junior and senior student responses were compared to learn whether there were differences in the two groups related to the amount

of social support desired or perceived as obtained. Results indicated that students in general desired more support than they were obtaining in the clinical setting. Based on student responses to the questionnaire and interviews, the researcher also concluded that different types of social support can be used by faculty in the clinical setting: directive guidance, nondirective support, tangible assistance, and positive social interaction. O'Reilly-Knapp further learned that junior students desired more directive guidance and feedback than senior students, but that the groups of students did not differ with respect to other types of social support desired. This study is important in reminding nurse educators of the importance of providing support for students in the clinical setting, and that junior students may require different types of support than senior students.

Kleehammer, Hart, and Keck (1990) examined a related aspect of student perceptions of the clinical experience. These researchers sought to identify student nurses' perceptions of anxiety-producing clinical experiences, and to learn whether junior and senior students had different perceptions of anxiety-producing experiences. Thirty-nine junior students and 53 senior students from one American baccalaureate program completed a questionnaire, in which they rated sixteen items on a Likert-type scale according to their anxiety-producing effect. Items included aspects of patient care, interpersonal relationships with members of the health care team, communication, and interaction with clinical teachers. Subjects also completed an open-ended question

asking them to identify the most anxiety producing aspect of the clinical experience.

Analysis of responses to the open-ended question indicated that negative interaction with the clinical teacher produced the most anxiety. In addition, students were anxious about observation and evaluation by their clinical teachers. Junior students reported feeling more anxiety than senior students with respect to procedural nursing skills and hospital equipment. Seniors reported unavailability of the instructor as more anxiety producing than juniors. While the first finding might have been anticipated, the latter was surprising, since it might be expected that senior students generally function more independently in the clinical setting. Kleehammer, Hart and Keck (1990) noted this unanticipated result, and suggested that further study in this area was needed. Moreover, they stated "...clinical faculty need to continually be cognizant of how their interactions with the student are perceived. A faculty member seen as unsupportive may have a great impact on the student's ability to learn due to increased student anxiety" (p. 187). By understanding student perceptions of effective clinical teacher behaviours, teachers can minimize behaviours considered to be anxiety-producing, thereby enhancing student learning.

Literature Related to Effective Clinical Teacher Behaviours

Clinical teaching effectiveness has been studied to a limited extent in nursing and other health care disciplines. Several authors have discussed the challenge that clinical teachers face in exhibiting effective

teacher behaviours. This challenge is due, in part, to the complexity of the clinical teacher's role. MacDonald-Clarkson (1986) notes that the primary purpose of the clinical setting is the delivery of quality patient care; thus clinical teachers must recognize, monitor and support not only student but also client needs. A clinical teacher must therefore be proficient at education, as well as being a competent practitioner (Bergman & Gaitskill, 1990; Wong & Wong, 1987). The complexity of the clinical teaching role underscores the need for faculty to understand more about which teacher behaviours are effective. McCabe (1985) further emphasizes that "faculty need to give more attention to the development of strategies and skills of teaching which would enable them to function as teachers rather than nurses who just happen to be teachers" (p. 256).

Freitas, Lantz and Reed (1991) related teacher effectiveness in nursing to creativity, and identified several strategies for enhancing creative teaching. These strategies included: connecting the students' life experiences with the educational material, including humour and experiences involving the students' feelings, encouraging students to take the role of the patient rather than the nurse, exhibiting risk taking behaviour, and presenting information dramatically (Freitas, Lantz & Reed).

Other authors have studied clinical teacher effectiveness more broadly, and have developed categories of effective clinical teacher behaviours. These categories include: knowledge and clinical

competence, teaching skill, teacher student relationship, personal characteristics, and evaluation (Bergman & Gaitskill, 1990; Fong & McCauley, 1993; McDonald Clarkson, 1986; Reilly & Oermann, 1992; and Mogan & Knox, 1985). Researchers have examined a number of different aspects of these teacher behaviours categories.

Flagler, Loper-Powers and Spitzer (1988) studied one aspect of clinical teacher behaviours. These researchers sought to determine clinical teacher behaviours that student nurses perceived as important in promoting their self-confidence. Teacher behaviours that the students viewed as enhancing their self-confidence included: giving positive reinforcement, giving specific feedback, showing confidence in students, encouraging and accepting questions, and providing support (Flagler, Loper-Powers, & Spitzer). Some of these behaviours relate directly to the categories of teacher behaviours previously described. For instance, giving positive reinforcement and specific feedback relates to the category of evaluation, whereas showing confidence in students and providing support relates to the student teacher relationship.

Jarski, Kulig and Olson (1989) examined clinical teacher behaviours from another perspective. These researchers conducted a study to identify clinical teaching behaviours perceived by 139 physiotherapy students and 33 clinical instructors as most effective and most hindering to their learning. Subjects, who represented eight American physiotherapy programs, rated 58 teacher behaviours on a Likert-type scale ranging from very helpful to very hindering. Behaviours

were categorized in a similar fashion to behaviour categories previously described. These categories were: interpersonal skills, professional skills, communication skills, and adult instructional skills.

Findings of Jarski, Kulig, and Olson's (1989) study indicated that behaviours perceived to be most helpful were in the adult instructional and communication categories, while behaviours perceived to be more hindering were primarily in the interpersonal domain. The researchers noted that teachers who exhibited strong skills in some categories, but weak skills in others, hindered learning. In order to be considered effective, therefore, it would seem that clinical teachers must have skill in all categories of teacher behaviours.

Fallon, Croen and Shelvov (1987) examined another aspect of clinical teacher behaviours. By studying 79 faculty and student evaluations of clinical teachers at one American college of medicine, they discovered that faculty self-assessments and student ratings of faculty differed significantly. The students rated the instructors higher than the teachers rated themselves on their ability to answer students' questions clearly, but rated them lower as role models. Results of this study illustrate that faculty self-assessments and student perceptions of faculty effectiveness do differ. It is not sufficient, therefore, for faculty to simply evaluate their own clinical teaching. They must also understand student perceptions of their teacher behaviours, if learning is to be maximized.

Irby, Gillmore and Ramsey (1987) studied factors affecting ratings of clinical teachers in medicine. A clinical teaching assessment form was used to collect data from 4050 medical students and residents. In contrast to Jarski, Kulig and Olson's (1989) findings, however, this study revealed that subjects related teacher effectiveness with the degree of the teacher's involvement with the students, as well as with teaching in elective versus required courses. Additionally, results of this study demonstrated that "teachers were rated highest for being knowledgeable and analytical, clear and organized, and enthusiastic and stimulating. The teachers were rated lowest on the items pertaining to providing direction and feedback, demonstrating clinical skills and procedures, and being accessible" (p. 3). When comparing these results to those of Jarski, Kulig and Olson, whose subjects valued adult instructional and communication behaviours, the diversity of perceptions concerning what constitutes effective clinical teacher behaviours becomes apparent. It was of interest to note that the residents rated their clinical teachers more highly than did medical students. This finding might reflect a closer relationship between faculty and residents as the residents advance through their education (Irby, Gillmore, & Ramsey, 1987). It is uncertain, however, whether similar findings would result from examining junior versus senior nursing students' perceptions.

In a series of studies, Mogan and Knox (1983, 1985, 1987) explored effective clinical teacher behaviours. In the initial study, they analyzed 435 Canadian baccalaureate nursing student evaluations of clinical

teachers. Student comments were categorized into five major areas: Teaching Ability, Interpersonal Relationships, Personality Traits, Nursing Competence, and Evaluation. Based on these findings, the researchers developed the Nursing Clinical Teacher Effectiveness Inventory (N.C.T.E.I.). This instrument (Appendix B) is comprised of 48 clinical teacher behaviours, each of which is rated by the subject on a Likert-type scale. Reliability and validity of the instrument were established (Mogan & Knox, 1983). The N.C.T.E.I. is comprehensive, and reflects most of the individual behaviours and categories of behaviours described in the literature.

Mogan and Knox (1985) then utilized the N.C.T.E.I. to identify and compare the perceived importance ratings of the five categories of clinical teaching behaviours. While this study examines only student perceptions of effective clinical teacher behaviours, Mogan & Knox's (1985) study population included nursing faculty, graduates, and student nurses. Subjects were asked to rate each teaching behaviour on a seven-point Likert-type scale, according to the behaviour's perceived importance. Results demonstrated that all three groups of subjects rated 'Evaluation' as highly important, and 'Personality Traits' as least important. The low rating of "Personality Traits" by students contradicts beliefs held by some that student evaluations of clinical teachers are only popularity contests (Bronstein, 1979).

Significant differences were found when comparing faculty, student, and graduate ratings. Faculty placed more value on 'Nursing

Competence' than did students, but placed less value on "Teaching Skill". This finding may be reflective of most nursing faculty being educated to be practitioners before becoming clinical teachers (Mogan & Knox, 1985). Graduates also placed more value on 'Nursing Competence', perhaps because of their concern for patients' well-being (Mogan & Knox, 1985). In contrast, students placed emphasis on 'Interpersonal Relationships', perhaps because of their need for support in order to minimize anxiety in the clinical setting.

When academic levels of student ratings were compared, Mogan and Knox (1985) noted some significant differences. For example, first and third year students attributed less importance to 'Nursing Competence', but more importance to "Interpersonal Relationships" than did second and fourth year students. First year students also valued "Personality Traits" more than did second year students. This may be related to anxiety felt in a new and unfamiliar environment, and the need for approachable and warm teachers (Mogan & Knox, 1985).

In a third study, Mogan and Knox (1987) sought to identify and compare characteristics of 'best' and 'worst' clinical teachers, as perceived by university nursing faculty and students. Subjects, including 28 clinical teachers and 173 baccalaureate nursing students, were drawn from one Canadian and seven American university schools of nursing. Using the N.C.T.E.I., subjects rated how descriptive each behaviour was of the 'best' and 'worst' instructor that they could recall. Results indicated that there was faculty-student consensus on 40 percent

of the 'Nursing Competence' and 'Interpersonal Relationship' behaviours. Faculty, however, placed importance on items in 'Nursing Competence' and 'Teaching Ability' categories, while students emphasized categories of 'Evaluation', 'Interpersonal Relationships' and 'Personality Traits'. Both groups agreed role modelling was the most critical characteristic differentiating 'best' and 'worst' clinical teachers (Mogan & Knox, 1987). Some findings of this study seem to contradict those of Mogan and Knox's 1985 study. For example, students in their earlier study attributed little importance to "Personality Traits", whereas they placed more value on this category in the 1987 study. Further study would allow for validation of results and interpretation of this diversity.

MacDonald-Clarkson (1986) employed the N.C.T.E.I., and a method similar to that of Mogan and Knox (1987), to study 50 nursing faculty and 202 nursing students at two community college nursing programs in Canada. Results were comparable to those of Mogan and Knox (1987). Students placed most importance on 'Personality Traits', 'Interpersonal Relationships' and 'Evaluation' behaviours, while faculty emphasized 'Teaching Ability', 'Nursing Competence' and 'Evaluation' characteristics.

MacDonald-Clarkson (1986) also considered a number of teacher and student variables which might influence ratings of teacher behaviours. When class levels of students were examined, "significant differences were found in four categories of behaviours for effective clinical teachers: "Teaching Ability", "Personality Traits", "Nursing

Competence", and "Evaluation" (p. 63). Junior students attributed more value to "Personality Traits" and "Evaluation", while senior students emphasized "Nursing Competence". MacDonald-Clarkson speculated that an increasing ability to appraise teacher effectiveness might account for some of these differences. Comparisons of specific teacher behaviours across class level were not made. MacDonald-Clarkson recommended further study exploring the influence of student variables (including class level) on the perceptions of clinical teacher effectiveness.

Pugh (1988) conducted a similar study in an effort to determine which clinical teaching behaviours faculty and nursing students considered to be important. Fifty American nursing faculty and 358 baccalaureate nursing students completed an eleven page questionnaire, rating and ranking the importance of various clinical teaching behaviours. Comparisons were drawn between faculty and student ratings. Additionally, factors such as type and level of student were considered. Findings illustrated that faculty and students agreed on the relative importance of only one of the five most highly related behaviours. This behaviour was "correct and comment on written assignments". Faculty-student consensus occurred with four of the five lowest rated behaviours. These behaviours were: "use anecdotal notes as a basis for evaluation"; "share anecdotal notes with students"; "interact with students' patients/families"; and "make assignments based on course objectives". It is interesting to note that the first two behaviours comprise

part of the teaching area of evaluation. While students and faculty in this study rated these behaviours as lowest, subjects in Mogan and Knox's (1985) study place great value on evaluative behaviours. Similarly, students in MacDonald-Clarkson's research (1986) emphasized evaluation.

Pugh (1988) also compared ratings of teacher behaviours across levels of students, and found three significant differences. Senior students rated "help with synthesis of patient data", "contact with their patients", and "observation while they are engaged in actual patient care" significantly lower than juniors rated these items (p. 30). This finding might reflect an increasing desire for independence as the student advances through the nursing program. As some of the previously described studies did not analyze specific teacher behaviours, but rather teaching categories (MacDonald-Clarkson, 1986; Mogan & Knox, 1985), cross study comparison with respect to differences between class levels is difficult.

Bergman and Gaitskill (1990) sought to identify effective clinical teacher behaviours, as perceived by nursing students and faculty, and to determine whether student perceptions shift as they approach graduation. One hundred and thirty-four baccalaureate nursing students and 23 faculty at one American university school of nursing completed a 20 item questionnaire, in which they rated clinical teacher behaviours. Descriptive analysis revealed that both faculty and students valued clinical expertise, equitable evaluation, and skills involving the

student-faculty relationship. Professional or personal attributes of the instructor were considered by both groups to be less important. Differences between faculty and student perceptions also emerged. Faculty appeared to place a higher value on instructor interest in patients, while students were more concerned with the teacher being well informed and able to communicate effectively.

Comparisons across levels of students revealed that as students advance toward graduation, they place more emphasis on teachers showing genuine interest in patients, providing useful feedback on student progress, and having realistic expectations. Additionally, senior students gave less emphasis to the teacher's respect for and confidence in students (Bergman and Gaitskill, 1990) .

Summary

A review of the research and non-research based literature related to nursing students' perceptions of the clinical experience, as well as clinical teacher behaviours, has been presented. The diversity of perceptions concerning effective clinical teacher behaviours and variations in findings reflect the exploratory stage of research in the area of clinical teaching. Measurement instruments as well as methodology used in these studies have been diverse, affecting generalizability, and making cross study comparisons difficult. Moreover, those studies which have considered the level of the student have discussed their findings primarily with respect to categories of teacher behaviours. Research is

limited concerning the influence of student competency level on student perceptions of specific teacher behaviours.

The renewed focus on the student-teacher relationship, as reflected in the 'curriculum revolution', as well as the increasing diversity of today's students emphasizes the need for teachers to understand students' perspectives. Knowledge of students' perceptions of effective clinical teacher behaviours is crucial in order for teachers to promote student learning.

CHAPTER THREE

Methodology

Introduction

In this chapter, a description of the research design, setting, sample selection, data collection procedures, and data collection instruments is presented. Ethical considerations, as well as an explanation of the data analysis procedure, are also included in this chapter.

Research Design

A descriptive research approach was used for this study. Polit and Hungler (1991) delineate descriptive research as aiming to describe phenomena rather than explain them. This type of research is often conducted when a field is new, when there is a shortage of facts, or when previous findings are inconclusive. A descriptive design was appropriate for the research, because of the scarcity of nursing literature in the area, and the diversity of both instruments and findings.

Setting

The study took place in selected colleges and university colleges within the province, accessible to the researcher. These colleges were collaborating to develop and implement a "caring curriculum" based on current nursing trends and concepts inherent in the works of Bevis and Watson (1989). The colleges provided comparable clinical experiences,

and had analogous organization of teaching semesters, allowing for generalizations across institutions to be made.

Sample

Nursing students enrolled in their third term, and students in the sixth term were asked to participate. Students having previous nursing experience (i.e. nursing assistants, practical nurses) were not included in the study, as it was thought that the additional nursing experience might influence the competency level of these students. Additionally, only those students who were enrolled in the term for the first time were included.

Polit and Hungler (1991) indicate that the larger the sample, the more representative of the population it is likely to be. The N.C.T.E.I. measures five variables or factors of clinical teaching effectiveness. Keeping in mind the general rule for sample size of 20 subjects per variable (Polit and Hungler, 1991), the desired sample size for the proposed study was 100 subjects. The study involved a once only measurement of all subjects' perceptions, therefore compensation for attrition was not necessary.

Data Collection Procedures

A letter of explanation (Appendix D), an overview of the study (Appendix F), and an agency consent form (Appendix E) requesting approval to undertake the study, as well as to use class time, were sent to the coordinator/chair of the nursing department at each of the three colleges. Subjects were given a packet including written instructions

(Appendix A), a Priority Clinical Teacher Behaviour Questionnaire (P.C.T.B.Q.) and a copy of the N.C.T.E.I. (Appendices B, C), together with an information letter (Appendix G), and a sealable envelope. Data collection occurred between the second and sixth weeks of the student term. In order to minimize the influence of the N.C.T.E.I. on the students' initial descriptions of effective clinical teacher behaviours, students were asked to complete the priority clinical teacher behaviour questionnaire first. Following completion of the P.C.T.B.Q., students were asked to reflect on the clinical teachers with whom they had previously interacted. They were then directed to complete the N.C.T.E.I., rating each teacher behaviour according to how important that behaviour was to them. The length of time to complete the instruments averaged twenty minutes. Due to distance and financial constraints, questionnaires were distributed by faculty at two of the colleges, and were returned to the researcher via the mail. At the third college, the researcher distributed and collected the questionnaires.

Instruments

Priority Clinical Teacher Behaviour Questionnaire (P.C.T.B.Q.)

The P.C.T.B.Q. (Appendix B) was developed by the researcher to gather descriptive data about student perceptions of effective clinical teacher behaviours. The questionnaire asks subjects to list three characteristics which they considered most important for a clinical teacher to possess, in order to capture the essence of what teacher behaviours the students viewed as most important. In addition, the

P.C.T.B.Q. provided a check to see that behaviours that students viewed as most important were reflected in the N.C.T.E.I.. Face validity of the P.C.T.B.Q. was established by three experienced nurse educators, who also confirmed its clarity.

Nursing Clinical Teacher Effectiveness Inventory (N.C.T.E.I.)

The N.C.T.E.I. was used to measure students' perceptions of effective clinical teacher behaviours (Appendix C). The instrument consists of 48 items, each describing a clinical teacher behaviour. This tool directed subjects to indicate how important each behaviour was to them as a learner by ranking the behaviour on a scale of one to seven, one being least important, and seven being most important.

The N.C.T.E.I. consists of five major categories including: Teaching Ability, Interpersonal Relationships, Personal Characteristics, Nursing Competence, and Evaluation. Definitions of each category are as follows.

1. Teaching Ability: "the process of transmission of skills and attitudes and the creation of an atmosphere in which this is done" (Mogan & Knox, 1987, p. 332). This category corresponded to the area of teacher behaviours previously described in the conceptual framework as "teaching skill".

2. Interpersonal Relationship: "a state of reciprocal interest or communication between two or more people excluding specific therapeutic communication between nurse and patient" (Mogan &

Knox, 1987, p. 332). This category paralleled the area of teacher behaviours previously described as the "teacher-student relationship".

3. Personal Characteristics: "the totality of the individual's attitudes, emotional tendencies and character traits, which are not specifically related to teaching, nursing or interpersonal relationships but may affect all three" (Mogan & Knox, 1987, p. 332). This category related to the teacher behaviours previously described in the conceptual framework under the same title.

4. Nursing Competence: "the clinical teacher's theoretical and clinical knowledge used in the practice of nursing as well as the teacher's attitude toward the profession" (Mogan & Knox, 1987, p. 332). This category corresponded to the area of clinical teacher behaviours previously named "knowledge and clinical competence".

5. Evaluation: "the type and amount of feedback the student receives from the teacher regarding clinical performance and written clinical assignments" (Mogan & Knox, 1987, p. 332). This corresponded to the "evaluation" category of teacher behaviours previously described in the conceptual framework.

The N.C.T.E.I. has established reliability. Polit and Hungler (1991) recommend a reliability coefficient of 0.60 to 0.70 when making group-level comparisons (p. 373). Using coefficient alpha, previous reliability estimates for the N.C.T.E.I. ranged from $\alpha = 0.82$ to 0.89 for each of the five major categories of teacher behaviours, and $\alpha = 0.79$ to 0.88 for each of the 48 items. The instrument had been found to be stable over

time, with test-retest scores for each of the 48 items at four weeks interval ranging from $r = 0.76$ to 0.93 . Correlation for the entire instrument was $r = 0.82$. These results are within the range of accepted reliability (Jalowiec, Murphy & Powers, 1984).

Validity of the N.C.T.E.I. had been confirmed. Content validity, described as " ... the sampling adequacy of the content area being measured" (Polit & Hungler, 1991, p. 375), had been established in two ways. Items of the N.C.T.E.I. evolved from descriptions of effective and ineffective teaching behaviours present in both nursing students' descriptions and in the literature (Mogan & Knox, 1983). All items were also judged important by nursing students, graduates, and faculty (mean importance ratings 84 to 93 percent). Face validity is reported by Dull (1989) as being established when the instrument includes all the items considered important to be measured. Mogan and Knox (1983) assumed face validity of the N.C.T.E.I. in view of positive comments received from respondents, stressing the importance of all 48 items.

The N.C.T.E.I. was adapted for use in this study. In order to more closely approximate current descriptions of teacher behaviours, the category of teacher behaviour known as personality traits (Mogan & Knox, 1987), was renamed to become personal characteristics. Additionally, subjects in Mogan and Knox's (1987) study were asked to think of a past clinical instructor who was effective, and then use the N.C.T.E.I. to rate that particular teacher's behaviours. Subjects in this study, however, were asked to rate each of the 48 teacher behaviours

according to their perceived importance, as it was believed that this procedure would elicit the teacher behaviours which students perceived to be most important. Permission was granted by Mogan for the above adaptations to be made.

Ethical Considerations

Data collection began following approval by the 'U.B.C. Behavioral Sciences Screening Committee for Research and Other Studies Involving Human Subjects'. A letter of explanation (Appendix D), agency consent form (Appendix E), and overview of the study (Appendix F) were given to the coordinator/chair of the nursing department at each of the three colleges. Written agency consent approving the study was obtained prior to the commencement of data collection. In addition, teachers teaching the classes in which data collection occurred were also provided with an overview of the study (Appendix F).

Subjects' knowledge and understanding of the research was addressed through a written description of the study (Appendix G). It was emphasized that participation in the study was completely voluntary, and that refusal to participate would in no way jeopardize the student's status. In the information letter, subjects were assured as to the confidentiality and anonymity of their responses. No data which might identify a student was requested. Completion and return of questionnaires was interpreted as consent to participate. Data were

returned to the researcher in sealed envelopes. Upon completion of the study, raw data were destroyed.

Data Analysis

In order to answer the research question, "what are nursing students perceptions of effective clinical teacher behaviours?", data obtained from both the Priority Clinical Teacher Behaviours Questionnaire and the Nursing Clinical Teacher Effectiveness Inventory were analyzed. Student responses to the P.C.T.B.Q. were analyzed to determine themes, by grouping similar descriptions of teacher behaviours into categories, and considering frequencies of responses. Analysis of the N.C.T.E.I. included the following measurements. To determine the central tendencies and variability within student responses, means, medians, ranges, and standard deviations were calculated for individual behaviours listed in the N.C.T.E.I.. The behaviours receiving the highest rating, as measured by mean, were compared to behaviours receiving most emphasis in student responses to the P.C.T.B.Q.. Responses to the two tools were compared to determine similarities and differences.

To answer the research question of "do novice and advanced beginner students perceive different clinical teacher behaviours as effective?", behaviours most emphasized by novice respondents to the P.C.T.B.Q. were compared to behaviours most emphasized by advanced beginner respondents. Novice and advanced beginner perceptions of effective clinical teacher behaviours, as measured by their responses to the N.C.T.E.I. were compared using four different analysis procedures.

Firstly, the ten behaviours most highly rated by novice students were compared to the ten most highly rated by advanced beginners. Secondly, the Mann Whitney test was used to determine statistically significant ($p < .05$) differences between novice and advanced beginner ratings of individual teacher behaviours. Thirdly, category scores were obtained for each category of teacher behaviour by summing means of individual behaviours within each category. The Mann Whitney test was then used to determine whether statistically significant ($p < .05$) differences between novice and advanced beginner ratings of categories of teacher behaviours existed. Finally, novice and advanced beginner ratings of categories of teacher behaviours were compared to determine whether statistically significant differences ($p < .05$) occurred across sites, using the Mann Whitney test. Findings related to student responses to the P.C.T.B.Q. and the N.C.T.E.I. were compared to ascertain similarities and differences.

Summary

In this chapter, the methodology of the research study has been presented, including a description of the research design, setting, sample selection, data collection procedures, instruments, ethical considerations, and data analysis. Results of the study are presented and discussed in Chapter Four.

CHAPTER FOUR

Presentation and Discussion of Findings

Introduction

In this chapter, the results of the study are presented in four major sections. Subject response rates are reported in the first section. In the second section, findings related to the first research question are discussed, including responses to both the Priority Clinical Teacher Behaviour Questionnaire (P.C.T.B.Q.) and the Nursing Clinical Teacher Effectiveness Inventory (N.C.T.E.I.). In the third section, findings which relate to the second research question are discussed with respect to student responses to both tools. In the final section of this chapter, a summary of the key findings of the study is presented.

Response Rates

A total of 205 questionnaires, which were comprised of the P.C.T.B.Q. and the N.C.T.E.I., were distributed to 100 novice and 105 advanced beginner nursing students at three colleges within the province. Of these, 138 questionnaires were returned, giving a total response rate of 67.3 %. Novice students returned a total of 83 questionnaires, resulting in a response rate of 83.0 %. Advanced beginner students returned a total of 55 questionnaires, resulting in a response rate of 52.2%.

Numbers of students' responses from the three colleges were as follows: College A: 38 novice students; College B: 45 novice students

and 33 advanced beginner students; and College C: 22 advanced beginner students. Only one level of students participated at Colleges A and C because no students were available at the other level at the time of data collection. Response rates of students at each of the three colleges were as follows: College A: 86.7 %; College B: 70 %; and College C: 44%.

Differences in response rates among colleges may be related to data collection procedures. These procedural differences were due to distance and financial limitations. At College A, subjects were offered an explanation of the study through the information letter, as well as through a verbal description by the researcher. In addition, the researcher personally distributed and collected the questionnaires, and was present to answer student questions. Some of these questions related to interpretation of the scale used in the N.C.T.E.I.. For instance, several students experienced difficulty choosing which behaviours listed on the N.C.T.E.I. to rank as very important, as they believed all of the behaviours were important. At Colleges B and C, faculty members distributed the questionnaires, and the study was explained to subjects through the information letter only. Questionnaires from these colleges were returned to the researcher via the mail.

Polit and Hungler (1991) indicate that response rates of mailed questionnaires may be as low as 20 %. It is interesting to note that the response rates of subjects at the two colleges where questionnaires were mailed were both substantially greater than this figure. Additionally, Polit

and Hungler suggest that if a general response rate is 60 % or greater, there is little chance of response bias, indicating that the responses are generalizable to the study population (Polit & Hungler). Since the overall response rate was 67.3 %, results are generalizable to the study population. Furthermore, the high overall response rate suggests that students at the surveyed colleges were eager to share their perceptions of effective clinical teacher behaviours.

Perceptions of Effective Clinical Teacher Behaviours

Student responses to the P.C.T.B.Q., as well as to the N.C.T.E.I., were analyzed in an effort to answer the research question: what are nursing students' perceptions of effective clinical teacher behaviours? A comparison between responses to both tools was also made to further understand nursing students' perceptions of effective clinical teacher behaviours.

Findings Related to Priority Clinical Teacher Behaviours

Nursing students' perceptions of critical behaviours that an effective clinical teacher must exhibit were elicited through their responses to the P.C.T.B.Q.. As responses to the P.C.T.B.Q. were obtained prior to students reading the N.C.T.E.I., subject bias was minimized. Results of responses to the P.C.T.B.Q. also served as a check to ensure that the behaviours viewed by subjects as important were reflected in the N.C.T.E.I..

Student responses were pooled in order to gain an understanding of common themes which permeated the overall group. These themes

are discussed with respect to the categories of teacher behaviours previously presented in the theoretical framework. Each theme has been compared to the current literature concerning students' perceptions of effective clinical teacher behaviours.

The first theme identified in the students' responses to the P.C.T.B.Q. relates to the category of teacher behaviour concerning knowledge and clinical competence. Forty-nine novice and advanced beginner students cited "knowledgeable" as one of the most important behaviours that a clinical teacher should exhibit. This figure represents 35.5 % of all subjects surveyed. Students indicated that a clinical teacher must have "excellent clinical skill and judgment", and "current knowledge of practice, skills, and nursing issues". Other students stated that a clinical teacher must possess a "wide base of knowledge and clinical experience". Both the scope of the teacher's clinical experience, as well as his/her currency in the field appeared to be important to the students surveyed. As one student remarked, "the clinical teacher must be in touch with reality in the workplace".

The above finding supports some of the general literature and research studies related to clinical teacher effectiveness. For instance, several authors of general literature on clinical teacher effectiveness have identified the need for clinical teachers to have extensive, up-to-date knowledge and clinical skills (Fong & McCauley, 1993; Reilly & Oermann, 1992). Researchers such as Bergman and Gaitskill (1990) have further noted that students highly value clinical expertise, while

MacDonald-Clarkson (1986) stated that nursing competence was considered important by senior students. Other research studies, however, have determined that knowledge was not emphasized by students (Mogan & Knox, 1987; Pugh, 1988).

The above findings refute the claim by some that student evaluations of teachers are simply popularity contests (Bronstein, 1979; Fallon, Croen & Shelvov, 1987). If student evaluations of teachers were based on popularity only, it is unlikely that knowledge and clinical competence would be as heavily emphasized as they were by subjects in this study. Instead, other behaviours such as personal attributes of the clinical teacher would likely be stressed. The emphasis given to knowledge and clinical skill by subjects in this study suggests that student evaluations of clinical teachers are useful, and go beyond valuing only the personal attributes of a teacher.

Another theme which was present in the overall student group of responses to the P.C.T.B.Q. centred around the category of teacher behaviour related to the student-teacher relationship. Thirty-six students (26.1 %) identified being approachable as an important clinical teacher behaviour. Another 36 students (26.1 %) identified being patient as a critical quality. A high number of students also named having empathy (22 students or 16.0 %), being understanding, (22 students or 16.0 %), being supportive (20 students or 14.5 %), and being caring (12 students or 8.7 %) as important qualities for a clinical teacher to exhibit. Students varied slightly in their descriptions of these behaviours. While many

simply named the terms, others were more specific and descriptive. For instance, one student wrote, "patient- allows a student to make minor mistakes then discusses them afterwards. Instructors that make comments while you're doing it not only makes it hard for the students but embarrasses them too". Another student urged clinical teachers to "*listen* and be patient". Others described an effective teacher as one who "is understanding and doesn't blow up when you make a mistake or don't understand", and "is understanding and remembers being a student".

These data suggest that a clinical teacher's ability to use effective interpersonal skills within the student-teacher relationship is a major concern for students. Because the students in this study were in a program which operationalized the trend toward emphasizing the student-teacher relationship, the finding that students stressed the student-teacher relationship is not surprising. However, analogous results have also been found in other studies preceding this trend. For example, MacDonald-Clarkson (1986) noted that students most frequently identified the teacher's ability to relate interpersonally as an effective teacher behaviour. Students described an effective teacher as being approachable, caring, willing to help, and demonstrating mutual respect (MacDonald-Clarkson). Mogan & Knox (1987) also found that students emphasized behaviours related to interpersonal relationships such as "is approachable, provides support and encouragement to students, and demonstrates empathy" (p. 334). These similar findings

underscore the need for clinical teachers to be aware of the impact that their interpersonal skills have on student learning in the clinical environment.

A third theme identified by smaller percentages of student responses relates to personal qualities of the clinical teacher. Eighteen students (13.0%) identified being open-minded, 14 students (10.1 %) identified being organized, and nine students (6.5 %) identified being non-judgmental as important qualities for a clinical teacher to exhibit. Nine students (6.5 %) stated that being enthusiastic was important, and nine others (6.5 %) identified that being honest was crucial. Others claimed that having a sense of humour (eight students or 5.8 %), being non-threatening (seven students or 5.1 %), and being honest (nine students or 6.5 %) were critical qualities of an effective clinical teacher.

These results suggest that for the study population, personal characteristics of the clinical teacher are important, but may be valued by fewer students than characteristics related to nursing competence and interpersonal relationships. A comparison of these findings to those of other studies revealed some similarities. For example, subjects in Pugh's (1988) study rated the importance of a number of clinical teacher behaviours. When this list of behaviours did not include personal characteristics, nursing students added these characteristics in their responses. Comments such as "share a part of her personal self with students", "realize that students are human", and "have the time to talk to you" indicated that students valued personal characteristics of a clinical

teacher (Pugh, p. 32). Mogan and Knox (1987) also found that students emphasized certain behaviours related to personal characteristics of the clinical teacher, such as being self-confident, enthusiastic and open-minded / non-judgmental. In addition, Bergman and Gaitskill's (1990) results indicated that students valued personal characteristics of being honest, direct with students, and enthusiastic.

A fourth theme identified in the nursing students' responses to the P.C.T.B.Q. was the lack of emphasis given to evaluative behaviours. One of these behaviours, the ability to give constructive criticism, was deemed important by eight (5.8 %) of the students. Other evaluative behaviours received little or no mention. This finding directly contrasts with those of other researchers, who have indicated that students place a high emphasis on evaluative behaviours (Bergman & Gaitskill, 1990; Mogan & Knox, 1987; Pugh, 1988).

One possible explanation for this finding may be that students within the study population do not relate specific teacher behaviours to evaluation, but rather view evaluation as permeating all teacher behaviours. Another possible explanation for this finding relates to a previously identified current trend in nursing education (Bevis & Watson, 1989; Tanner, 1990). Teachers and students are shifting from their traditional roles, becoming partners in learning. As programs in this study focussed on a curriculum which emphasizes caring and the student-teacher relationship, it seems logical that students placed more emphasis on teacher behaviours other than those related to evaluation.

Further study related specifically to this area would help to clarify these results.

When student responses to the P.C.T.B.Q. were analyzed with respect to the fifth category of teacher behaviour related to teaching skill, no themes were identified. Comments which related to teaching skill were diverse, and, in general, made by only a very small number of students. Examples of these comments were: "promotes student independence" (four students or 2.9 %); "willing to demonstrate skills" (four students or 2.9 %); "explains clearly" (three students or 2.2 %); "promotes students' critical thinking" (one student or 0.7 %); and "ability to adapt to each student's individual needs (one student or 0.7 %). These data suggest that for many students within the study population, clinical teacher behaviours which relate to teaching skill may be viewed as less important than behaviours which relate to other categories.

The above finding contrasts with findings of several other researchers. Pugh (1988), MacDonald-Clarkson (1986), and Mogan & Knox (1987) determined that students do emphasize certain clinical teacher behaviours which relate to teaching skill. Examples of behaviours emphasized in these studies were: is well prepared for teaching; offers students opportunities to meet their own goals; and gives students assignments which help them transfer theory to practice.

Findings Related to the Nursing Clinical Teacher Effectiveness Inventory

Using the N.C.T.E.I., students were asked to rate 48 teacher behaviours on a Likert-type scale from one to seven, according to the

behaviour's perceived importance. Within the overall group, students' ratings of clinical teacher behaviours were analyzed using descriptive statistics. The mean, median, standard deviation, and range were calculated for each of the 48 behaviours. These results are presented in Table One. Data indicate that, in general, all of the behaviours were rated highly by students. Means, which measure central tendency (Glenberg, 1988), ranged from 5.478 for the behaviour "is a dynamic, energetic person", to 6.8043 for the behaviour "corrects students' mistakes without belittling them". Medians for ratings of individual behaviours varied from six to seven. Since the median, like the mean, is another measure of central tendency (Glenberg), the finding that the medians were generally high is not surprising.

Both the standard deviation and the range give an indication of the variability of ratings by the group (Glenberg). The standard deviations of individual behaviour ratings ranged from 0.5706 for "is approachable" to 1.2360 for "shows a personal interest in students". For some individual teacher behaviours, there was considerable variability in student ratings (range of 1-7), while for other behaviours little variability was noted (range of 5-7). Thus, while students generally rated all behaviours highly, there was a considerable amount of variation in student responses.

To gain an understanding of the teacher behaviours most highly emphasized by student responses to the N.C.T.E.I., means of individual teacher behaviours were further reviewed. The ten behaviours receiving

Table One: Students' Ratings of Individual Effective Clinical Teacher Behaviours, as Measured by the N.C.T.E.I.

Behaviour	Mean	Median	Std. Dev.	Range
<u>Teaching Ability</u>				
1. Explains clearly	6.7319	7.0	0.6224	4-7
2. Emphasizes what is important	6.4348	7.0	0.7345	4-7
3. Stimulates student interest in the subject	6.0220	6.0	1.2090	1-7
4. Is accessible for students	6.2628	7.0	0.9646	3-7
5. Demonstrates clinical procedures and techniques	6.2754	7.0	0.9946	3-7
6. Helps students identify and make use of practice opportunities	6.0942	6.0	0.9582	3-7
7. Offers special help when difficulties arise	6.5217	7.0	0.7469	4-7
8. Is well prepared for teaching	6.4275	7.0	0.8361	4-7
9. Enjoys teaching	6.4307	7.0	0.8728	3-7
10. Encourages active participation in group discussion	5.5290	6.0	1.2390	1-7
11. Gears instruction to students' level of readiness	6.1377	6.0	1.0407	2-7
12. Understands what students are asking or telling	6.3431	7.0	0.9029	4-7
13. Answers carefully and precisely questions raised by students	6.3116	7.0	0.9106	3-7
14. Questions students to elicit understanding	5.9124	6.0	1.0605	2-7
15. Helps students organize their thoughts about patient problems	6.0942	6.0	1.0525	1-7
16. Promotes student independence	6.4420	7.0	0.7450	4-7
<u>Interpersonal Relationships</u>				
17. Provides support and encouragement to students	6.6377	7.0	0.6500	4-7
18. Is approachable	6.7391	7.0	0.5706	4-7
19. Encourages a climate of mutual respect	6.5000	7.0	0.6754	4-7
20. Listens attentively	6.5255	7.0	0.6500	4-7
21. Shows a personal interest in students	5.7660	6.0	1.2560	1-7
22. Demonstrates empathy	6.2190	6.0	0.8970	3-7

Table One Continued

<u>Personal Characteristics</u>				
23. Demonstrates enthusiasm	6.0797	6.0	1.0041	3-7
24. Is a dynamic, energetic person	5.4780	6.0	1.3140	1-7
25. Is self-confident	6.2826	7.0	0.8795	3-7
26. Uses self-criticism constructively	6.1884	6.0	0.9005	3-7
27. Is open minded and nonjudgmental	6.7029	7.0	0.5846	4-7
28. Has a good sense of humour	5.8330	6.0	1.2360	1-7
29. Is organized	6.4275	7.0	0.7820	4-7
<u>Nursing Competence</u>				
30. Demonstrates clinical skill and judgment	6.6739	7.0	0.6180	3-7
31. Demonstrates communication skills	6.4928	7.0	0.7946	1-7
32. Reveals broad reading in his/her area of interest	5.5140	6.0	1.1850	1-7
33. Discusses current developments in his/her field	5.5217	6.0	1.1154	2-7
34. Directs students to useful literature in nursing	5.9130	6.0	0.9702	3-7
35. Demonstrates a breadth of knowledge in nursing	6.2920	6.0	0.7780	4-7
36. Recognizes own limitations	6.3261	7.0	0.8209	3-7
37. Takes responsibility for own actions	6.6159	7.0	0.6869	4-7
38. Is a good role model	6.5942	7.0	0.6688	4-7
39. Enjoys nursing	6.6014	7.0	0.6567	4-7

Table One Continued

<u>Evaluation</u>				
40. Makes specific suggestions for improvement	6.5725	7.0	0.6381	4-7
41. Provides frequent feedback on students' performance	6.5580	7.0	0.6837	4-7
42. Identifies students' strengths and limitations objectively	6.6014	7.0	0.6224	4-7
43. Observes students' performance frequently	6.0725	6.0	0.8931	4-7
44. Communicates clearly expectations of students	6.5766	7.0	0.8019	3-7
45. Has realistic expectations of students	6.6423	7.0	0.6387	4-7
46. Gives students positive reinforcement for good contributions, observations and performance	6.6232	7.0	0.6529	4-7
47. Corrects students' mistakes without belittling them	6.8043	7.0	0.4498	5-7
48. Does not criticize students in front of others	6.7536	7.0	0.7430	1-7

the highest rating, as measured by the mean, are presented in Table Two.

Three important conclusions may be drawn as a result of the above findings. Firstly, students in the study population appear to perceive all the behaviours listed in the tool as important. This finding, which supports results of other studies using the same tool, suggests that in order for clinical teachers to be effective, they must demonstrate proficiency in a range of teacher behaviours. Thus, to be effective in only some categories of teacher behaviours but not others is not to achieve effectiveness overall. Secondly, the variability of student ratings of certain individual teacher behaviours emphasizes the individuality of students' perceptions of effective clinical teacher behaviours. This finding may relate to the trend in nursing education toward increasing student diversity, and points to the importance of considering student individuality. Thirdly, while the students in this study perceive all teacher behaviours listed in the N.C.T.E.I. as important, certain key behaviours, as presented in Table Two, are considered highly important.

The above findings are comparable to other studies which have also used the N.C.T.E.I.. For example, Mogan and Knox (1987) found that students emphasized four of the same behaviours as those most highly rated by all students in this study: is approachable; corrects students' mistakes without belittling them; demonstrates clinical skill and judgement; and takes responsibility for own actions. Three of the behaviours emphasized by all students in this study also appeared in the

Table Two: Ten Individual Teacher Behaviours Receiving the Highest Rating by Students, as Measured by the N.C.T.E.I.

Teacher behaviour	Mean
1. Corrects students' mistakes without belittling them (E)	6.8043
2. Does not criticize students in front of others (E)	6.7536
3. Is approachable (I)	6.7391
4. Explains clearly (T)	6.7319
5. Is open-minded and nonjudgmental (P)	6.7029
6. Demonstrates clinical skill and judgment (N)	6.6739
7. Has realistic expectations of students (E)	6.6423
8. Provides support and encouragement to students (I)	6.6377
9. Gives students positive reinforcement for good contributions, observations and performance (E)	6.6232
10. Takes responsibility for own actions (N)	6.6159

* T = Teaching Ability; I = Interpersonal Relationships; P = Personal Characteristics; N = Nursing Competence; E = Evaluation

ten highest rated characteristics by students in MacDonald-Clarkson's (1986) study. These behaviours are: is approachable; provides support and encouragement; and demonstrates clinical skill and judgment (p. 41). Additionally, the behaviour of enjoys nursing ranked eleventh by students in this study, and was within the top ten in both Mogan and Knox's and MacDonald-Clarkson's studies. It is interesting to note, therefore, that this study, as well as Mogan and Knox (1987) and MacDonald-Clarkson (1986) found that students highly valued teacher behaviours of: enjoys nursing; is approachable; and demonstrates clinical skill and judgment. The replication of this finding indicates that nursing students universally value these teacher behaviours. To be considered effective, therefore, clinical teachers must exhibit these behaviours.

A Comparison of Findings

Teacher behaviours which were described most frequently by student responses to the P.C.T.B.Q. were compared with behaviours receiving the highest rating (as measured by mean) in the N.C.T.E.I.. Certain similarities and differences were noted. In both tools, students emphasized the need for clinical teachers to: demonstrate clinical skill and judgment; be approachable; provide support, encouragement, and positive reinforcement; and be open-minded and nonjudgmental. Student responses to the P.C.T.B.Q. also indicate that students perceive teacher behaviours of being patient, understanding, and caring as highly important, whereas the N.C.T.E.I. did not contain these behaviours.

Student responses to the N.C.T.E.I. further suggest that students value teacher behaviours of correcting students' mistakes without belittling them, not criticizing students in front of others, explaining clearly, having realistic expectations of students, and taking responsibility for their own actions. Several of these behaviours relate to evaluation, not emphasized by student responses to the P.C.T.B.Q.. Despite some differences in student responses to the two tools, the above list of behaviours provides a fairly clear picture of teacher behaviours most emphasized by all students.

Minor differences, primarily in descriptions of certain effective teacher behaviours, were noted when student responses to the two tools were compared. These differences occurred predominantly within the teacher behaviour categories of knowledge and clinical competence, interpersonal relationships, and personal characteristics. For instance, differences in the description of "knowledgeable" were noted, with responses to the P.C.T.B.Q. emphasizing currency and broadness of clinical skill. Behaviours such as being caring, patient, honest, and positive, identified as important in student responses to the P.C.T.B.Q., are not listed in the N.C.T.E.I..

The above differences in descriptions of certain teacher behaviours are likely related to the nature of the tools used in the study. While the P.C.T.B.Q. was open-ended, allowing students to generate their own descriptions of effective teacher behaviours, the N.C.T.E.I. was more structured in providing a list of teacher behaviours. Thus, students were

able to choose their own descriptions of effective teacher behaviours when completing the P.C.T.B.Q., but not when completing the N.C.T.E.I.. Furthermore, the N.C.T.E.I. cues students providing a list of teacher behaviours, and does not afford students the opportunity to prioritize teacher behaviours considered most effective.

Another possible explanation for the differences in descriptions of certain teacher behaviours may be related to the renewed emphasis on the student-teacher relationship. Terms describing the student-teacher relationship may be more explicit today than they were previously. Students may also be more articulate in describing certain aspects of the student-teacher relationship. In addition, while Mogan and Knox's descriptors of clinical teacher behaviours stemmed from actual subject responses (Mogan & Knox, 1983), today's students may be coming from a different frame of reference. Thus, teacher behaviours most highly valued by today's students may be different from those valued by students ten years ago.

In summary, results indicated that students perceive that in order to be effective, clinical teachers must possess proficiency in a range of teacher behaviours. In addition, students perceive that certain behaviours are particularly important. These behaviours are: demonstrate clinical skill and judgment; be approachable, knowledgeable, open-minded, caring, understanding, and patient; provide support and positive reinforcement; have empathy; explain

clearly; correct students' mistakes without belittling them; and do not criticize students in front of others.

Student Perceptions Related to Competency Levels

The second research question which this study sought to answer was "Do novice and advanced beginner students perceive different teacher behaviours as effective?". Student responses to both the P.C.T.B.Q. and the N.C.T.E.I. were analyzed and compared in an effort to answer this question.

Findings Related to Priority Clinical Teacher Behaviours

Further analysis of the P.C.T.B.Q. was done in order to gain an understanding of whether novice and advanced beginner perceived different teacher behaviours as effective. The ten behaviours most frequently described as important by students in each group are listed in Tables Three and Four. In addition to helping to answer the second research question of the study, this procedure also facilitated comparison of results from this study to previous research conducted in the area. Eleven behaviours are listed in Table Four, as four behaviours received the same emphasis from advanced beginner students.

Most behaviours highlighted by students were emphasized by both novices and advanced beginners. Certain differences, however, appeared with respect to novice and advanced beginner students' perceptions of the importance of specific teacher behaviours. Teacher behaviours of being caring and possessing a wide range of clinical experience appeared in the top ten behaviours as rated by novice

Table Three: Ten Clinical Teacher Behaviours Most Emphasized by Novice Students, as Measured by the P.C.T.B.Q.

Behaviour	Number of students	Percentage of students
*knowledgeable	30 / 83	36.1 %
*approachable	23 / 83	27.7 %
*patient	22 / 83	26.5 %
*demonstrates empathy	17 / 83	20.5 %
*supportive	12 / 83	14.5 %
*organized	9 / 83	10.8 %
*open minded	9 / 83	10.8 %
*understanding	8 / 83	9.6 %
caring	8 / 83	9.6 %
range of clinical experience	6 / 83	7.2 %

*indicates behaviours also emphasized most frequently by advanced beginner students

Table Four: Eleven Clinical Teacher Behaviours Emphasized by
Advanced Beginner Students, as Measured by the P.C.T.B.Q.

Behaviour	Number of Students	Percentage of Students
*knowledgeable	19 / 55	34.5 %
*patient	14 / 55	25.4 %
*understanding	14 / 55	25.4 %
*approachable	13 / 55	23.6 %
*open minded	9 / 55	16.4 %
*supportive	8 / 55	14.5 %
honest	6 / 55	10.9 %
*demonstrates empathy	5 / 55	9.1 %
non-judgmental	5 / 55	9.1 %
*organized	5 / 55	9.1%
enthusiastic	5 / 55	9.1 %

*indicates behaviours also emphasized most frequently by novice
students

students, but did not appear in the list of behaviours considered most important by advanced beginners. One possible explanation for this finding may be that since novice students lack clinical experience, they may place a greater value on the clinical teacher's ability to make them feel at ease and lessen their anxiety through caring. Additionally, novice students may emphasize a teacher's clinical experience, as their own lack of clinical experience makes them more reliant on a role model to help them feel confident about delivering safe, effective care.

The eleven teacher behaviours considered most effective by advanced beginner students included being honest, non-judgmental, and enthusiastic. These behaviours were not found on the list of behaviours considered most effective by novice students. Perhaps as advanced beginner students near graduation, their need for direct and objective interactions with the clinical teacher is greater, in order to understand and improve their own performance. Moreover, as advanced beginner students approach collegueship with the teacher and anticipate entering the profession, their need for a clinical teacher to demonstrate enthusiasm about nursing may be heightened. Results also indicated that the teacher behaviour of being understanding was considered most important by 25.4 % of advanced beginner students, but only by 9.6 % of novice students. The emphasis by advanced beginner students on their need for a clinical teacher to be understanding reminds nurse educators that aspects of the student-

teacher relationship are not only important to beginning nursing students, but continue to be important to students throughout their program.

The above findings partially support related research. For instance, Bergman and Gaitskill (1990) found that senior level students rated teachers' personal characteristics of being enthusiastic higher than junior students, but rated being honest and direct with students lower than junior students. Other behaviours identified by student responses to the P.C.T.B.Q. were not present in Bergman and Gaitskill's list of effective clinical teacher behaviours, making a thorough cross study comparison difficult.

Findings Related to the Nursing Clinical Teacher Effectiveness Inventory

Responses to the N.C.T.E.I. were analyzed with respect to the two competency levels of students. In an effort to determine whether novice and advanced beginner perceptions of effective clinical teacher behaviours differed, four different analysis procedures were carried out. Firstly, the ten behaviours most highly rated by novice students were compared to the ten most highly rated by advanced beginners. Secondly, novice and advanced beginner ratings of individual teacher behaviours were compared using the Mann Whitney test. Thirdly, novice and advanced beginner ratings of categories of teacher behaviours were compared using the same nonparametric test. Finally, novice and advanced beginner ratings of categories of teacher behaviours were compared across sites.

To determine whether novice and advanced beginner perceptions differed, the ten most highly rated behaviours by both groups were compared. This procedure also facilitated comparison between this study and previous research conducted using the N.C.T.E.I.. Results are presented in Table Five.

Data indicated that novice and advanced beginner students in the study population had very similar perceptions of individual clinical teacher behaviours considered most effective. Seven behaviours appeared in the ten highest rated behaviours by both groups. The two groups differed in the following ways. Novice students emphasized the need for clinical teachers to give students positive reinforcement for good contributions, observations, and performance, demonstrate clinical skill and judgment, and be a good role model. Advanced beginner students, on the other hand, stressed the need for clinical teachers to take responsibility for their own actions, enjoy nursing, and make specific suggestions for improvement. These differences, although not identical, are similar to those found in student responses to the P.C.T.B.Q.. As other studies using the N.C.T.E.I. (MacDonald-Clarkson, 1986; Mogan & Knox, 1987) have not described ratings of individual teacher behaviours according to levels of students, cross study comparison was not possible.

To determine whether there were differences between ratings of individual teacher behaviours by novice and advanced beginner students, data were analyzed using the Mann-Whitney test. This non-parametric test, which is used to test differences

Table Five: Ten Individual Teacher Behaviours Rated Highest by Novice and Advanced Beginner Students, as Measured by the N.C.T.E.I.

Most Highly Rated Behaviours	Mean	Median	Std. Dev.	Range
<u>Novices</u>				
*Corrects students' mistakes without belittling them (E)	6.7590	7.0	.4836	5-7
*Does not criticize students in front of others (E)	6.6747	7.0	.8280	1-7
*Is approachable (I)	6.6747	7.0	.6460	4-7
*Explains clearly (T)	6.6747	7.0	.6827	4-7
Demonstrates clinical skill and judgment (C)	6.6506	7.0	.5933	4-7
*Is open minded and non-judgmental (P)	6.6386	7.0	.6359	4-7
Gives students positive reinforcement for good contributions, observations and performance (E)	6.6386	7.0	.6164	4-7
*Has realistic expectations of students (E)	6.5904	7.0	.6633	4-7
*Provides support and encouragement to students (I)	6.5783	7.0	.7177	4-7
Is a good role model (C)	6.5422	7.0	.6861	5-7
<u>Advanced Beginners</u>				
*Corrects students' mistakes without belittling them (E)	6.8727	7.0	.3875	5-7
*Does not criticize students in front of others (E)	6.8727	7.0	.5791	3-7
*Is approachable (I)	6.8364	7.0	.4200	5-7
*Explains clearly (T)	6.8182	7.0	.5125	5-7
*Is open minded and non-judgmental (P)	6.8000	7.0	.4869	5-7
Takes responsibility for own actions (C)	6.7455	7.0	.5170	5-7
Enjoys nursing (C)	6.7455	7.0	.5517	4-7
Makes specific suggestions for improvement (E)	6.7455	7.0	.5517	4-7
*Provides support and encouragement for students (I)	6.7273	7.0	.5254	5-7
*Has realistic expectations of students (E)	6.7222	7.0	.5961	4-7

*indicates behaviours emphasized by both groups of students

(T) = Teaching Ability (I) = Interpersonal Relationships (P) = Personal

Characteristics (C) = Nursing Competence (E) = Evaluation

between two independent groups based on ranked scores, is appropriate since the scale used in the N.C.T.E.I. is ordinal (Polit & Hungler, 1991). Statistically significant differences ($p < .05$) appeared between novice and advanced beginner ratings of eleven individual teacher behaviours. These findings are presented in Table Six. Advanced beginner ratings were significantly higher ($p < .05$) than those of novice students for all of the eleven individual teacher behaviours. No individual teacher behaviours were rated significantly higher by novice students. This finding has not been previously documented in the literature. Furthermore, highly significant differences ($p < .01$) occurred between advanced beginner and novice student ratings of two individual teacher behaviours: enjoys teaching and makes specific suggestions for improvement. The latter finding is of particular interest, since many clinical teachers make more specific suggestions for improvement when working with beginning nursing students, and less specific suggestions for improvement when teaching advanced students. This finding indicates that, for the students in the study population, specific and detailed feedback regarding performance is more highly desired by nursing students nearing graduation than students in the beginning of their program.

Another important finding was that only three of the individual teacher behaviours for which a statistically significant difference between novice and advanced beginner ratings occurred appears in

Table Six: Advanced Beginner Ratings of Individual Teacher Behaviours Which Differed Significantly from

Novice Ratings

Novices

Advanced Beginners

Behaviour	Mean	S.D.	Med.	Range	Mean	S.D.	Med.	Range	Z- value	P- value
Emphasizes what is Important	6.325	0.798	6	4-7	6.600	0.596	7	5-7	2.02	.0431
Is well prepared for teaching	6.301	0.920	7	4-7	6.618	0.652	7	5-7	2.06	.0390
Enjoys teaching	6.277	0.954	7	3-7	6.667	0.673	7	4-7	2.64	.0081
Encourages a climate of mutual respect	6.410	0.699	7	5-7	6.636	0.620	7	4-7	2.04	.0415
Demonstrates enthusiasm	5.904	1.089	6	3-7	6.345	0.799	7	4-7	2.32	.0202
Is a dynamic, energetic person	5.337	1.262	6	1-7	5.691	1.373	6	1-7	2.00	.0459
Is self-confident	6.169	0.881	6	4-7	6.455	0.857	7	3-7	2.19	.0282
Is organized	6.325	0.828	7	4-7	6.582	0.686	7	4-7	1.97	.0488
Enjoys nursing	6.506	0.705	7	4-7	6.745	0.552	7	4-7	2.18	.0289
Makes specific suggestions for improvement	6.458	0.668	7	5-7	6.745	0.552	7	4-7	2.82	.0048
Does not criticize students in front of others	6.675	0.828	7	1-7	6.873	0.579	7	3-7	2.24	.0247

*based on $n = 83$ novice students, $n = 55$ advanced beginner students

*p value based on the Mann-Whitney test (corrected for ties); $p < .05$

the list of behaviours most highly rated by all students (Table Five). These behaviours were: does not criticize students in front of others; enjoys nursing; and makes specific suggestions for improvement. This finding indicates that while statistically significant differences appeared between novice and advanced beginner ratings of eleven teacher behaviours, many of these behaviours were not the behaviours considered most important by all students. It appears, therefore, that although Table Five lists the ten individual teacher behaviours most highly valued by advanced beginner students in this study, another subset of teacher behaviours more highly valued by advanced beginner students also existed. Advanced beginner students within the study population had a greater desire than novice students for clinical teachers to emphasize what is important, be well prepared for and enjoy teaching, encourage a climate of mutual respect, be dynamic, energetic, organized, and self-confident, and not to criticize students in front of others. These findings paint a detailed picture of what advanced beginner students consider to be effective clinical teacher behaviours.

One possible explanation for these findings may be that some of the above teacher behaviours more closely relate to the advanced beginner nursing students' competency level. For instance, advanced beginner students may be more able to appreciate a teacher who enjoys teaching and nursing as they are approaching graduation and entrance into the profession. Advanced beginners may also relate to a teacher's ability to be organized, since their own organization skills may

be challenged managing complex patient assignments. Novice students, since they generally focus on more simple aspects of patient care delivery, may not have the ability to evaluate these teacher behaviours as well.

To further understand differences between novice and advanced beginner ratings of effective clinical teacher behaviours, category scores for each of the five categories of teacher behaviours were calculated by summing means of individual behaviours within each category. Using the Mann-Whitney test, these category scores were then compared across student levels to determine whether statistically significant differences occurred. Results of this comparison are presented in Table Seven. Data indicated that statistically significant ($p < .05$) differences occurred between the two student groups for two categories of teacher behaviours: personal characteristics and interpersonal relationships. The difference between advanced beginner and novice ratings for the category of personal characteristics was highly significant ($z = 2.76$; $p < .006$). Additionally, differences between advanced beginner and novice ratings for the category of evaluation approached statistical significance ($z = 1.82$; $p = .0687$). Advanced beginner students ratings of all of the above categories of teacher behaviours were higher than ratings by novice students. No statistically significant differences between ratings by the two student groups occurred within the categories of teacher behaviours of teaching skill or nursing competence.

Table Seven: A Comparison of Category Scores as Rated by Novice and Advanced Beginner Students

Novice					Advanced Beginner					
Cat	Mean	S.D.	Med.	Range	Mean	S.D.	Med.	Range	Z-value	P-value
T	99.200	8.378	100	78-112	100.60	8.164	102	80-112	0.87	.3815
I	37.700	3.607	38	28-42	39.100	2.959	40	26-42	2.09	.0362
P	42.200	4.388	43	30-49	44.200	3.754	45	34-49	2.76	.0059
C	61.831	5.316	63	48-70	63.500	4.447	63	50-70	1.55	.1211
E	58.700	3.991	59	47-63	59.900	3.208	61	52-63	1.82	.0687

*where n = 83 novice students, n = 55 advanced beginner students

*based on the Mann-Whitney test; $p < .05$

T = Teaching Ability; I = Interpersonal Relationships; P = Personal

Characteristics; C = Nursing Competence; E = Evaluation

This finding supports some of the results found by other researchers. For example, MacDonald-Clarkson (1986) found that when mean rankings of student responses by category across class level were compared, senior students ranked both personality traits as well as interpersonal relationships higher than junior students. MacDonald-Clarkson speculated that as students advance through their nursing education, they become increasingly aware of the clinical teacher's behaviour. She noted that this increasing awareness of the teacher's behaviour may cause advanced beginner students to place more value on personal characteristics and interpersonal skills of the teacher. This researcher, however, believes that increased experience as a nursing student, and a decreasing focus on themselves may allow advanced beginner students to recognize the importance of teacher behaviours related to personal characteristics, interpersonal skills, and evaluation in their student-teacher interactions.

Statistical analysis of the N.C.T.E.I. therefore revealed that, for the study population, advanced beginner students rated certain individual teacher behaviours as well as categories of teacher behaviours higher than novice students, but that the reciprocal was not true. Additional analysis was carried out in an attempt to further understand the variations in student ratings within the study population. Novice student ratings, as well as advanced beginner student ratings of categories of teacher behaviours were compared within and between individual colleges, using the Mann-Whitney test. Analysis revealed that novice

student responses differed significantly ($p < .05$) between colleges A and B with respect to teacher behaviour categories of teaching skill, interpersonal relationships, and nursing competency. Advanced beginner student responses between colleges B and C differed significantly for only one category of teacher behaviour: interpersonal relationships. Within college B, no significant differences between novice and advanced beginner student ratings of categories of teacher behaviours occurred. Novice student responses from college A differed significantly from advanced student responses from college C with respect to all five teacher behaviour categories. Finally, novices from college A differed significantly from advanced beginner students at college B with respect to the ratings of only the categories of personal characteristics and nursing competence. These findings are presented in Tables Eight, Nine, Ten, Eleven, and Twelve, located in Appendix H.

Because of the large variability and lack of pattern found in the above data, it was difficult to draw conclusions. What was apparent from this analysis, however, was that novice and advanced beginner students' perceptions of effective clinical teacher behaviours were not homogeneous across sites, despite the three colleges offering the same curriculum. Although the presence of the researcher may have had some influence on the responses of students at College A, the characteristics of students, teachers, clinical settings, and teaching-learning environment may differ according to each site. Thus, it may not be surprising that students' perceptions also differ somewhat across sites.

Bevis and Watson (1989) have documented the uniqueness of each student-teacher interaction, noting that interactions with each student will be based on the context, content, and the individuals involved (p. 192). In addition, Bevis and Watson describe different types of curriculum, including a 'hidden curriculum' which is reflective of how the teacher thinks and feels as a nurse (p. 75). Furthermore, Woodruff (1967) theorized that individuals selectively filter information, and that only information which has personal meaning is stored, forming concepts which become the basis for decision-making. As nursing students selectively filter information related to the teaching-learning environment, they form individual perceptions of effective clinical teacher behaviours.

The presence of the above factors may explain the lack of homogeneity found across sites related to students' perceptions of effective clinical teacher behaviours. This finding emphasizes the importance of faculty recognizing the uniqueness of each student-teacher interaction and the influence that these interactions have on students' perceptions of effective teacher behaviours and on student learning.

A Comparison of Findings

A comparison between the results obtained from student responses to the P.C.T.B.Q. and the N.C.T.E.I. revealed that novice and advanced beginner students within the study population shared similar perceptions about the importance of many clinical teacher behaviours.

Additionally, novice responses to both tools indicated the need for clinical teachers to demonstrate clinical skills (presumably by having a wide range of clinical experience), as well as be caring and give positive feedback. Advanced beginner students, in contrast, emphasized a need for teachers to take responsibility for their actions, enjoy nursing, make suggestions for improvement, and be honest and nonjudgmental. The emphasis on these qualities may reflect a need for advanced beginner students, who are nearing graduation, to have an accurate perception of their performance, and have a role model who exhibits professional behaviours. Bergman and Galtskill (1990) noted that as students near graduation, they value teacher behaviours such as having realistic expectations and providing useful feedback on student progress. In contrast, however, O'Reilly-Knapp (1994) found that junior students desired more social support, guidance, and feedback than did senior students.

A comparison was done between the above findings and the researcher's original thoughts regarding novice and advanced beginner students' perceptions of effective clinical teacher behaviours. The researcher originally thought that because of their limited experience and understanding, novice students might value clinical teacher behaviours such as an ability to provide clear explanations and demonstrations, answer questions clearly, and be clinically knowledgeable. It was also believed that novice students might place more emphasis on teacher behaviours which would increase student

comfort in the clinical setting, such as being supportive, open, and caring. These ideas were based on Benner's (1984) description of the novice competency level. The findings of the study supported these speculations.

The researcher also originally postulated, based on Benner's description of advanced beginners, that advanced students would place less emphasis on teacher behaviours that would increase student comfort in the clinical area, and instead would value a clinical teacher who promotes independence, demonstrates expert clinical judgment, and who asks questions which stimulate learning. These postulations were not supported by the findings of the study. Results suggested that even as students near graduation, they highly value teacher attributes such as being approachable, supportive, understanding, knowledgeable, nonjudgmental and honest.

Commentary on the Use of the Nursing Clinical Teacher Effectiveness

Inventory

Several observations were made as a result of utilizing the N.C.T.E.I.. While the tool contains an extensive list of teacher behaviours, students in this study identified additional behaviours as highly important. Some of these behaviours included being patient, understanding, and caring. Descriptions of certain teacher behaviours also varied somewhat when student responses to the N.C.T.E.I. and the P.C.T.B.Q. were compared. Thus, it appears that while the N.C.T.E.I. provides a

large range of teacher behaviours, it is not an inclusive list, and thus may need reexamination with today's students.

Conflicting results between students' responses regarding emphasis on evaluative behaviours also occurred when comparing the tools. These differences may be related to the fact that the N.C.T.E.I. does not give respondents an opportunity to prioritize teacher behaviours. Finally, a number of students' responses to the N.C.T.E.I. indicated that the scale of one to seven may need reevaluation. For example, several students rated each of the 48 behaviours as a "seven", but also highlighted certain behaviours with exclamation marks or asterisks.

Summary

This study sought to answer two research questions. The first research question was "What are nursing students' perceptions of effective clinical teacher behaviours?". Student perceptions of effective clinical teacher behaviours were elicited through their responses to the P.C.T.B.Q. and the N.C.T.E.I.. All students emphasized the need for clinical teachers to be knowledgeable, demonstrate clinical skill and judgment, be approachable, provide support, and be open-minded and non-judgmental. Student responses to the P.C.T.B.Q. also emphasized specific teacher behaviours such as being caring, understanding, and patient, while responses to the N.C.T.E.I. stressed that effective clinical teachers correct students' mistakes without belittling them, do not criticize students in front of others, and explain clearly.

The second research question was "Do novice and advanced beginner students perceive different teacher behaviours as effective?". In order to answer this question, novice and advanced beginner students' responses were compared. Results indicated that certain teacher behaviours were valued by all students irrespective of their competency level. Differences in perceptions of novice and advanced beginner students also occurred. Novice students emphasized teacher behaviours of being caring, giving positive feedback, and demonstrating clinical skill and judgment. Advanced beginner students, on the other hand, stressed the need for clinical teachers to take responsibility for their actions, enjoy nursing, make specific suggestions for improvement, and be honest and nonjudgmental.

Non-parametric testing was used to determine significant differences between novice and advanced beginner ratings of individual behaviours and categories of behaviours. Advanced beginner students ratings of certain individual behaviours and categories of behaviours were significantly higher than novice ratings. Additionally, differences were found across sites with respect to students' perceptions of effective clinical teacher behaviours.

A summary of the study, conclusions drawn as a result of the study, and implications of the findings for nursing education and research are presented in Chapter Five.

CHAPTER FIVE

Summary, Conclusions, and Implications for Nursing

Summary of the Study

Clinical teachers must be effective if student learning in the clinical setting is to be optimized. Current concepts in nursing education, including a renewed focus on the student-teacher relationship and increasing diversity of today's students, underscore the need for nurse educators to understand students' perspectives on teacher behaviours. Nursing students' perceptions of effective clinical teacher behaviours, however, have not been examined extensively. Furthermore, it is uncertain whether these perceptions are influenced by the competency levels of the students as they advance through their nursing program. The research questions which this study sought to answer were: "What are nursing students' perceptions of effective clinical teacher behaviours?"; and "Do novice and advanced beginner students perceive different teacher behaviours as effective?".

The theoretical framework for the study drew on concepts derived from the works of Benner (1984), Reilly and Oermann (1992), and Woodruff (1967). These concepts were: clinical teacher behaviours; students' perceptions of these teacher behaviours; and the competency levels of the students. The concepts were considered to be interrelated, and all integral to the teaching/learning process.

Because of the scarcity of related nursing literature, and because instruments and findings used previously were diverse, a descriptive

research design was used for this study. The study took place in selected colleges and university colleges within the province of British Columbia. These colleges were collaborating with other colleges and one partner university to develop and implement a curriculum based on current nursing trends and concepts inherent in the work of Bevis and Watson (1989). Clinical experiences and organization of teaching terms were comparable across institutions. The study sample included students enrolled in their third term, who were considered novices, and students enrolled in their sixth term, who were considered advanced beginners. Data were collected through the use of two instruments. The first instrument, the Priority Clinical Teacher Behaviour Questionnaire (P.C.T.B.Q.), was developed by the researcher, and directed students to list three characteristics which they believed to be most important for a clinical teacher to possess. The second instrument, the Nursing Clinical Teacher Effectiveness Inventory (N.C.T.E.I.), was developed by Mogan and Knox (1987), and directed students to rate 48 clinical teacher behaviours according to their perceived importance.

Results of the study indicated that all students emphasized the need for clinical teachers to be knowledgeable, demonstrate clinical skill and judgment, be approachable, provide support, and be open minded and non-judgmental. Additionally, student responses to the P.C.T.B.Q. stressed that teachers need to be caring, understanding, patient, organized, and have empathy, while responses to the N.C.T.E.I. emphasized teacher behaviours of offering special help when difficulties

arise, being good role models, enjoying nursing, and explaining clearly.

Novice and advanced beginner student responses indicated that the two levels of students shared many of the same perceptions regarding the importance of certain teacher behaviours. Behaviours emphasized by students regardless of their competency level were: is knowledgeable, approachable, patient, understanding, open minded, supportive, organized and shows empathy for students. Novice students placed more emphasis than advanced beginner students did on teacher behaviours of being caring, giving positive feedback, and demonstrating clinical skill and judgment. Advanced beginner students, on the other hand, placed more emphasis on teacher behaviours such as taking responsibility for their actions, and being honest, enthusiastic, and nonjudgmental. Analysis of significant differences ($p < .05$) between novice and advanced beginner ratings of individual teacher behaviours revealed that the advanced beginner students in this study also placed great value on a subset of teacher behaviours. Some of these behaviours included: makes specific suggestions for improvement; enjoys teaching; is well prepared for teaching; is self-confident; enjoys nursing; and does not criticize students in front of others. Advanced beginner students' ratings of categories of teacher behaviours related to personal characteristics, interpersonal skills, and evaluations were significantly higher ($p < .05$) than novice students' ratings. Students' perceptions were also found to vary somewhat across sites. While some of these findings supported research previously conducted in the area,

other findings offered a new perspective on students' perceptions of effective clinical teacher behaviours.

Conclusions

Conclusions drawn from this study are as follows:

1. To be considered effective, clinical teachers must demonstrate proficiency in a range of teacher behaviours. Categories of behaviours in which a teacher must demonstrate skill are: knowledge and clinical competence; teaching skill; interpersonal relationships, personal characteristics, and evaluation.

2. A clinical teacher's ability to use effective interpersonal skills is a major concern for all students, irrespective of their competency level. Students also value a teacher who demonstrates skills related to evaluating students, as well as knowledge and competence in the clinical setting. Personal attributes of the clinical teacher, while considered important, are valued by fewer students than behaviours related to knowledge, interpersonal skills, and evaluation.

3. Novice and advanced beginner students share many of the same perceptions of effective clinical teacher behaviours. Certain differences between the two groups also exist. Novice students appear to emphasize teacher behaviours which allow them to feel confident that they are giving safe, quality patient care, such as giving positive reinforcement, demonstrating clinical skill and judgment, and being a good role model. Advanced beginner students seem to emphasize clinical teacher behaviours which help them to accurately assess and

improve their own performance, as well as teacher behaviours which indicate good interpersonal skills and an enjoyment of the nursing profession. This study also revealed a subset of teacher behaviours highly valued by advanced beginner students. These selected behaviours related to evaluative abilities, personal characteristics, and teaching skill.

4. Students' perceptions of effective clinical teacher behaviours are somewhat individual, and may relate to unique characteristics of the student, teacher, clinical and college setting.

5. While the N.C.T.E.I. contains a large range of behaviours representative of an effective clinical teacher, it is not an inclusive list, and may need reexamination with today's nursing students.

Implications for Nursing Education

The findings of this study suggest a number of implications for nursing education:

1. Since clinical teachers' behaviours influence student learning in the clinical setting, knowledge of students' perspectives on the effectiveness of these behaviours is crucial. Clinical teachers may find the results of this study informative in terms of identifying students' perceptions of effective clinical teacher behaviours. Results indicated that certain clinical teacher behaviours were perceived as important by all students within the study population. This finding suggests that in order to be effective, clinical teachers must be knowledgeable about, and demonstrate these behaviours. Behaviours perceived to be

effective should therefore be incorporated into clinical teachers' practice, thereby maximizing the potential for providing effective instruction and enhancing student learning outcomes.

2. Results suggested that while novice and advanced beginner students' perceptions of effective clinical teacher behaviours were similar, certain differences existed. With an appreciation of students' perceptions across competency levels, clinical teachers may be able to adapt their teaching to incorporate behaviours considered effective by the level of student they are teaching. Findings related to advanced beginners' perceptions of effective clinical teacher behaviours were particularly informative, since a set of behaviours rated highest by advanced beginners as well as a subset of behaviours valued by these students were found. The clinical teacher is therefore given fairly specific direction when working with advanced nursing students.

3. This study is the first to examine students' perceptions of effective clinical teacher behaviours within the context of a number of colleges and university colleges in the province collaborating to develop and implement the 'caring curriculum'. This curriculum is based on current nursing trends and concepts inherent in Bevis and Watson's (1989) work. Because of the emphasis within the curriculum on concepts such as caring and the student-teacher relationship, knowledge of teacher behaviours perceived by students to be effective may be especially beneficial to nurse educators working within this context.

4. The results of the study may serve as a guide for faculty development and improvement. Faculty members need to develop and implement strategies which would ensure that they are exhibiting effective teacher behaviours in the clinical setting. Sharing of clinical experiences, and observing other teachers in the practice setting would facilitate the development of effective teacher behaviours. Workshops, seminars, and faculty development sessions focussing on effective clinical teacher behaviours also need to be developed, since many clinical teachers lack formal preparation for their role. Similarly, content related to teacher behaviours considered effective by students should be incorporated into baccalaureate and graduate nursing education, since many of the graduates of these programs assume teaching positions.

5. The emphasis by students in this study on teacher behaviours related to knowledge and clinical skill suggests that clinical teachers should possess a broad range of clinical experience and current skill in the clinical field in which they are teaching. Faculty development should therefore include a clinical practice component to ensure these behaviours. Participation in faculty seminars and attendance at clinical practice based conferences are other ways in which faculty could strengthen these behaviours.

6. Student emphasis on behaviours related to interpersonal relationships indicates that clinical teachers must also be aware of and improve their own interpersonal skills, recognizing the impact that these

behaviours have on student learning. Using effective interpersonal skills within student-teacher interactions would facilitate the development of student self-confidence, lessen student anxiety, and might decrease student attrition within nursing programs.

7. Knowledge of behaviours considered to be effective may also serve as a guide for faculty when conducting self and peer evaluation, since behaviours which are considered effective should be enhanced.

8. Finally, results of the study also indicated that students' perceptions of effective clinical teacher behaviours were individual, and may be related to unique characteristics of the teacher, student, clinical setting, and other aspects of the complex teaching-learning environment. Thus, clinical teachers should verify perceptions of effective clinical teacher behaviours with students to ensure that individual student learning is enhanced.

Implications for Nursing Research

The findings of this study indicate the following areas of research which would enhance understanding of students' perceptions of effective clinical teacher behaviours:

1. Research is limited concerning whether students' perceptions of effective clinical teacher behaviours are related to the students' competency level. Analysis of student responses to the N.C.T.E.I. revealed that advanced beginner students rated a number of individual teacher behaviours as well as categories of teacher behaviours significantly higher than novice students. Novice students' ratings,

however, of other individual and categories of teacher behaviours were not higher than ratings by advanced beginners. Further study examining student perceptions of specific teacher behaviours across student competency levels would allow for validation of results, would help enrich understanding of this phenomenon, and would allow for generalizations to be made beyond the study population.

2. No other research related to students' perceptions of effective clinical teacher behaviours within the context of a 'caring curriculum' has been done to date. Because of the curriculum's emphasis on current nursing trends, including a renewed focus on the student-teacher relationship, and because teachers within the curriculum are learning to teach using what may be a different approach, replication of the study within this context would be valuable. Additionally, it would be interesting to learn whether students' perceptions of effective clinical teacher behaviours within the context of a 'caring curriculum' are different from those within the context of a more traditional curriculum.

3. Results of this study suggested that students' perceptions of effective clinical teacher behaviours are somewhat individual, and may be related to unique characteristics of the teacher, student, the clinical setting, and the complex teaching-learning environment. Further study examining the influence of various characteristics of students (including age, gender, life and work experience), characteristics of teachers (including age, number of years teaching, educational preparation, and employment status), and characteristics of the clinical setting (including

the type and acuity of patients, and characteristics of staff) would help to further understanding of clinical teacher effectiveness.

4. This study revealed that students' perceptions of effective clinical teacher behaviours may vary according to the tool used to elicit responses. For example, teacher behaviours related to evaluation were given little emphasis in student responses to the P.C.T.B.Q., but were highly rated in student responses to the N.C.T.E.I.. Study findings also indicated that teacher behaviours related to teaching skill were not emphasized in student responses to the P.C.T.B.Q.. This finding contrasted with findings of other researchers. Further study related specifically to students' perceptions of these categories of teacher behaviours would be useful.

Summary

This study has identified nursing students' perceptions of effective clinical teacher behaviours, and determined that novice and advanced beginner students perceive selected teacher behaviours differently. Given the limited research which exists in this area, further studies which would enhance understanding or explore other aspects of this subject are warranted.

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Appendix A

Participant Instructions

Please complete the attached questionnaires in the following manner.

1. Read and complete the Priority Clinical Teacher Behaviour Questionnaire first, and place in the envelope provided.
2. Reflect on the clinical teachers with whom you have had contact up until now.
3. Complete the Nursing Clinical Teacher Effectiveness Inventory, rating each behaviour according to how important it presently is to you. When completed, place this questionnaire in the envelope and seal it.
4. The researcher will collect all completed questionnaires.

Thank you for your participation.

Appendix B

PRIORITY CLINICAL TEACHER BEHAVIOUR QUESTIONNAIRE

Instructions: Please record THREE characteristics which you believe to be most important for a clinical teacher to possess. Thank you.

1. _____

2. _____

3. _____

Appendix C

NURSING CLINICAL TEACHER EFFECTIVENESS INVENTORY

Please enter the semester you are currently enrolled in: _____

The following is a list of clinical teacher behaviours. Please circle the number which indicates the importance of each behaviour to you.

1= Not at all important

7= Very important

Teaching Ability

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. Explains clearly | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Emphasizes what is important | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Stimulates student interest in the subject | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Is accessible for students | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Demonstrates clinical procedures and techniques | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Helps student identify and make use of practice opportunities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Offers special help when difficulties arise | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Is well prepared for teaching | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Enjoys teaching | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. Encourages active participation in group discussion | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. Gears instruction to students' level of readiness | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. Understands what students are asking or telling | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. Answers carefully and precisely questions raised by students | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. Questions students to elicit understanding | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. Helps students organize their thoughts about patient problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. Promotes student independence | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Interpersonal Relationships

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| 17. Provides support and encouragement to students | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. Is approachable | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. Encourages a climate of mutual respect | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. Listens attentively | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21. Shows a personal interest in students | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

22. Demonstrates empathy	1	2	3	4	5	6	7
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Personal Characteristics

23. Demonstrates enthusiasm	1	2	3	4	5	6	7
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24. Is a dynamic, energetic person	1	2	3	4	5	6	7
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25. Is self-confident	1	2	3	4	5	6	7
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26. Uses self-criticism constructively	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

27. Is open-minded and nonjudgmental	1	2	3	4	5	6	7
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28. Has a good sense of humour	1	2	3	4	5	6	7
--------------------------------	---	---	---	---	---	---	---

29. Is organized	1	2	3	4	5	6	7
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Nursing Competence

30. Demonstrates clinical skill and judgment	1	2	3	4	5	6	7
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31. Demonstrates communication skills	1	2	3	4	5	6	7
---------------------------------------	---	---	---	---	---	---	---

32. Reveals broad reading in his/her area of interest	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

33. Discusses current developments in his/her field	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

34. Directs students to useful literature in nursing	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

35. Demonstrates a breadth of knowledge in nursing	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

36. Recognizes own limitations	1	2	3	4	5	6	7
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37. Takes responsibility for own actions	1	2	3	4	5	6	7
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38. Is a good role model	1	2	3	4	5	6	7
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39. Enjoys nursing	1	2	3	4	5	6	7
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Evaluation

40. Makes specific suggestions for improvement	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

41. Provides frequent feedback on students' performance	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

42. Identifies students' strengths and limitations objectively	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

43. Observes students' performance frequently	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

44. Communicates clearly expectations of students	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

45. Has realistic expectations of students	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

46. Gives students positive reinforcement for good contributions, observations and performance	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

47. Corrects students' mistakes without belittling them	1	2	3	4	5	6	7
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48. Does not criticize students in front of others	1	2	3	4	5	6	7
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*permission granted by Mogan for use and adaptation of this instrument

Appendix D

Letter of Explanation for Agency Consent

Dear Director:

My name is Lisa Chow. I am a Registered Nurse, and a Master's student in the School of Nursing at the University of British Columbia. My thesis is concerned with effective clinical teacher behaviours in nursing. Interest in this subject stems from my own experience as a clinical teacher in nursing. While striving for excellence in clinical teaching, I have attempted to understand the clinical teacher behaviours that are most effective, and therefore promote learning.

I believe that if clinical teachers understand those behaviours that students value, they can optimize student learning. The purpose of my study is to determine nursing students' perceptions of effective clinical teacher behaviours. In addition, I wish to discover whether students at different levels in the program value different teacher behaviours.

I am particularly interested in examining student perceptions within "collaborative curriculum" settings. As a teacher in one of these settings, I am aware of the focus on the student-teacher relationship, and the approach to learning from an egalitarian, and individualized perspective. I suspect that with changes in nursing education, student perceptions of effective teacher behaviours may also be changing. Thus, behaviours which were previously considered effective may no longer be appropriate with today's students.

I would like to request the participation of nursing students presently enrolled in semester two, and those enrolled in the fifth semester of your program. Participants will be asked to complete two questionnaires, involving approximately 20 minutes of classroom time. It will be emphasized that participation in the study will be completely voluntary, and that refusal to participate will in no way jeopardize the student's status. Subjects will be assured as to the confidentiality and anonymity of their responses. No identifying data will be requested on either questionnaire. Data will be returned to the researcher in sealed envelopes. Upon completion of the study, raw data will be destroyed. Results of the study will be made available to you and your faculty following completion of the study.

The U.B.C. Behavioral Sciences Screening Committee for Research and Other Studies Involving Human Subjects requires agency consent for approval

of the study. Enclosed is an agency consent form, and a brief overview of the proposed study. I would appreciate the opportunity to answer any questions you may have, to further explain my study, and if approval is granted, to obtain the completed consent form. In addition, I would appreciate an opportunity to present the study to your faculty members. Please contact me to arrange an appointment at your earliest convenience. My home phone number is 986-9305.

Thank you very much for your attention to my request.

Sincerely,

Lisa Chow, RN, BScN

Thesis Chair: Anne Wyness
Telephone Number: 822-7485

Appendix E

Agency Consent Form

I, the undersigned, give permission to Lisa Chow to conduct her research on nursing students' perceptions of effective clinical teacher behaviours at this institution.

Chair/Coordinator's Signature: _____

Name of College: _____

Researcher's Signature: _____

Date: _____

Appendix F

Agency Handout: Nursing Students' Perceptions of Effective Clinical Teacher Behaviours

Overview of the Proposed Study

This study is designed to explore nursing students' perceptions of effective clinical teacher behaviours, and to discover if students at different levels of the program value different clinical teacher behaviours.

Clinical teachers must be effective in order to optimize student learning. The determination, however, of what constitutes an effective clinical teacher presents a challenge. Part of this challenge is related to varying perceptions regarding teacher effectiveness (Bergman & Gaitskill, 1990; Jarski, Kullig & Olson, 1989; Mogan & Knox, 1985, Mogan & Knox, 1987; Pugh, 1988).

Nursing students' perceptions of the clinical experience in general, and more specifically, their perceptions of effective clinical teaching have not been examined extensively. Furthermore, little is known about the clinical teacher behaviours valued by students at different levels in the program. Thus, no clear direction is provided for the teacher who attempts to adjust his/her behaviours to different student levels.

Interest in this study stems not only from the limited nursing research in this area, but also from the researcher's personal experience as a clinical teacher in nursing. Of particular interest are student perceptions within "collaborative curriculum" settings. Within these settings, there is renewed focus on the student-teacher relationship, and learning is approached from an egalitarian and individualized perspective (Bevis & Watson, 1989). Teacher behaviours previously considered effective may no longer be appropriate with students in these settings.

Nursing students enrolled in their second semester, and students in the fifth semester of their nursing program will be asked to complete two questionnaires, involving approximately 20 minutes of classroom time. It will be emphasized that participation in the study will be completely voluntary, and that refusal to participate will in no way jeopardize the student's status. Subjects will be assured as to the confidentiality and anonymity of their responses.

The study will be significant in the advancement of knowledge concerning clinical teacher effectiveness. Results of the study will be made available to you and your faculty following completion of the study.

References

- Bergman, K., & Gaitskill, T. (1990). Faculty and student perceptions of effective clinical teachers: An extension study. Journal of Professional Nursing, 6(1), 33-44.
- Bevis, E., & Watson, J. (1989). Toward a Caring Curriculum: A New Pedagogy for Nursing. New York: National League for Nursing.
- Jarski, R., Kulig, K. & Olson, R. (1989). Allied health perceptions of effective clinical instruction. Journal of Allied Health, 469-477.
- Mogan, J. & Knox, J. (1985). Important clinical teacher behaviours as perceived by university nursing faculty, students, and graduates. Journal of Advanced Nursing, 10, 25-30.
- Mogan, J. & Knox, J. (1987). Characteristics of 'best' and 'worst' clinical teachers as perceived by university nursing faculty and students. Journal of Advanced Nursing, 12, 331-337.
- Pugh, E. (1988). Soliciting student input to improve clinical teaching. Nurse Educator, 13(5), 28-33.

Appendix G

Participant Information Letter

Dear Participant:

My name is Lisa Chow. I am a Registered Nurse, and a Master's student in the School of Nursing at the University of British Columbia. My thesis is concerned with effective clinical teacher behaviours in nursing. Little is known about nursing students' perceptions of effective clinical teacher behaviours, and whether students at different levels in the program value different teacher behaviours. I believe that if clinical teachers are aware of those behaviours which you as students value, they can provide more effective instruction. My study will attempt to determine effective clinical teacher behaviours, as perceived by nursing students. In addition, I wish to discover whether students at different levels in the program value different teacher behaviours.

You are being asked to participate in this study by filling out two questionnaires, involving approximately 20 minutes of classroom time. The completion of these questionnaires will be taken as your consent to participate. Participation is strictly voluntary; your acceptance or refusal to participate will in no way jeopardize your status as a student. All questionnaires and forms will be treated with complete confidentiality. Your name, or any other identifying codes will not be included in the questionnaires. The researcher will collect your completed questionnaires in sealed envelopes. No one, other than the researcher and her research committee will see the questionnaires. The data obtained from the study will be written in the form of a Master's thesis. Upon completion of the study, the questionnaires you have filled out will be destroyed.

An abstract of the study will be available to you upon request, following completion of the study. Thank you in advance for your assistance in furthering research on clinical teaching effectiveness in nursing.

Sincerely,

Lisa Chow, RN, BScN

Thesis Chair: Anne Wyness
Telephone Number: 822-7485

Appendix H
A Comparison of Teacher Category Scores as Measured by the N.C.T.E.I.
Between and Within Colleges and Student Levels

*For Tables, Eight, Nine, Ten, Eleven, and Twelve, the following codes apply to teacher behaviour categories:

T = Teaching Skill; I = Interpersonal Relationships; P = Personal Characteristics;
C = Nursing Competency; and E = Evaluation

Significance is based on the Mann-Whitney test where $p < .05$.

Table Eight: A Comparison of Novice Student Responses Between Colleges A and B for Teacher Behaviour Categories

Category	Mean (College A)	Mean (College B)	z-value	p - value
T	95.6	102.2	3.00	.0007
I	36.6	38.6	2.54	.0111
P	41.1	43.2	2.02	.0436
C	59.5	63.8	3.00	.0001
E	57.8	59.4	1.67	.0945

Table Nine: A Comparison of Advanced Beginner Responses Between Colleges B and C for Teacher Behaviour Categories

Category	Mean (College B)	Mean (College C)	z-value	p - value
T	99.6	102.1	1.47	.2150
I	38.3	4.02	0.65	.0177
P	44.2	44.2	1.20	.8695
C	63.1	64.1	0.96	.3784
E	59.6	60.5	0.38	.5418

Table Ten: A Comparison of Novice and Advanced Beginner Responses Between Colleges A and C for Teacher Behaviour Categories

Category	Mean (Novices at College A)	Mean (Advanced Beginners at College C)	z-value	p - value
T	95.6	102.1	1.79	.0045
I	36.6	40.2	1.93	.0002
P	41.1	44.2	2.81	.0072
C	59.4	64.1	2.82	.0012
E	57.8	60.4	0.10	.0226

Table 11: A Comparison of Novice and Advanced Beginner Responses within College B for Teacher Behaviour Categories

Category	Mean (Novices)	Mean (Advanced Beginners)	z-value	p - value
T	102.2	99.6	1.24	.1420
I	68.6	38.3	2.37	.5168
P	43.2	44.2	0.16	.2304
C	63.8	63.1	0.88	.3375
E	59.4	59.6	0.61	.7014

Table 12: A Comparison of Novice and Advanced Beginner Responses between Colleges A and B for Teacher Behaviour Categories

Category	Mean (Novices at College A)	Mean (Advanced Beginners at College B)	z-value	p-value
T	95.6	99.6	2.84	.0736
I	36.6	38.3	3.00	.0535
P	41.1	44.2	2.69	.0038
C	59.4	63.1	3.00	.0047
E	57.8	59.6	2.28	.0768