

CHAPTER 4

FINDINGS AND DISCUSSION

The purpose of this study was to assess the level of clinical learning environment among the 4th year BNS and to assess the level of clinical learning outcomes among the 4th year BNSs, and to examine the relationship between clinical learning environment and clinical learning outcomes among the 4th year BNSs in the Socialist Republic of Vietnam. The findings are presented in four parts with tables and descriptions: (1) demographic characteristics of the participants, (2) clinical learning environment, (3) clinical learning outcomes, and (4) relationship between clinical learning environment and clinical learning outcomes. Discussion is conducted based on research objectives and results of the study.

Findings

Part I: Demographic characteristics of the Participants

The participants consisted of 252 the 4th year BNSs. The demographic data of the participants are presented in Table 1.

Table 1

Frequency and percentage of the participants characteristics classify by gender, students in one group, nursing institutions, and clinical wards (n=252).

Characteristics	Frequency (n)	Percent (%)
Gender		
Female	211	83.70
Male	41	16.30
Number of fourth-year student in one group		
6-10	67	26.60
11-15	129	51.20
> 15	56	22.20
Nursing institutions		
Nam Dinh University of Nursing	103	40.90
Hanoi Medical University	42	16.60
Thang Long University	23	9.10
Thai Nguyen Medical University	22	8.80
Thai Binh Medical University	22	8.80
Hai Phong Medical University	20	7.90
Hai Duong Medical Technology University	20	7.90
Clinical wards		
Medical - surgical	95	37.70
Special wards	57	22.60
Maternal and child	54	21.40
ICU - Emergency	46	18.30

Table 1 showed that most of participants (83.70%) were female. Two third of the participants (72.40%) were exposed to the ward setting in large group (more than eleven students). Regarding nursing institution, the largest group of participants

(40.90%) was studying at Nam Dinh University of Nursing. Of the total participants, the largest group was studying in medical-surgical setting (37.70%).

Table 2

Frequency and percentage of the characteristic of clinical wards that the fourth-year baccalaureate nursing students practice

Characteristics	Frequency (n)	Percent (%)
Type of nursing student on ward		
Only 4 th year baccalaureate nursing student	180	71.43
Consist of 4 th year BNS and other years	72	28.57
Medical students practice on ward		
Yes	129	51.20
No	123	48.80
Times of faculty member visit to ward per week		
None	44	17.50
One	115	45.60
Two	51	20.20
More than two	42	16.70
Bed occupation rate		
51 – 100%	22	8.73
101 – 150%	165	65.48
151 – 200%	65	25.79



As shown in table 2, one third of the participants (28.57) were exposed to the ward which consisted of baccalaureate nursing students in other academic year. Half of participants (51.20%) studied with medical student at the same ward. Regarding faculty member visiting, 17.50% of the participants did not have clinical

instructor visit. Most of ward settings (91.27%) had patient occupation rate more than 100 percent.

Part II: Clinical Learning Environment

This part illustrated that the level of overall clinical learning environment and level in each dimension as perceived by the 4th year BNSs in seven universities in The Socialist Republic of Vietnam. The results are shown in table 2.

Table 3

Mean, standard deviation, and level of clinical learning environment as perceived by the participants (n= 252)

Clinical learning environment	\bar{X}	SD	Level
Staff-student Relationship	17.54	3.63	Moderate
Nurse manager commitment	10.77	3.11	Moderate
Student-patient relationship	11.80	3.06	Moderate
Student satisfaction	12.89	3.48	Moderate
Interpersonal relationship	15.40	3.21	Moderate
<i>Total CLE</i>	68.40	11.90	<i>Moderate</i>

As shown in Table 3, the total clinical learning environment as perceived by the 4th year BNSs was at a moderate level ($\bar{X} = 68.40$, SD = 11.90). When analyze in each dimension, there were also found that the score of all five dimensions of clinical learning environment were at a moderate level.

Part III Clinical learning outcomes

This part aims to describe the level of clinical learning outcomes as perceived by the 4th year BNSs in seven universities in The Socialist Republic of Vietnam. The results are shown in table 4.

Table 4

Mean, standard deviation, and level of clinical learning outcomes as perceived by the participants (n= 252)

Clinical learning outcomes	\bar{X}	SD	Level
Caring	18.35	1.94	High
Student role	18.34	2.48	High
Psychomotor skills	18.29	2.35	Moderate
Nursing process	18.15	2.23	Moderate
Organizing plan	18.09	3.16	Moderate
Patient teaching	17.90	2.83	Moderate
Communication	17.81	2.80	Moderate
Accountability	17.61	2.68	Moderate
Knowledge	16.93	2.94	Moderate
<i>Total CLO</i>	<i>161.46</i>	<i>18.86</i>	<i>Moderate</i>

As shown in table 4, the total clinical learning outcomes as perceived by the participants was at a moderate level ($\bar{X} = 161.46$, SD = 18.86). For each dimension, the caring and student role were both at a high ($\bar{X} = 18.35$, SD = 1.94 and $\bar{X} = 18.34$, SD = 2.48) while other dimensions was at a moderate level.

Part IV: The Relationship between Clinical Learning Environment and Clinical Learning Outcomes

The relationship between clinical learning outcomes and clinical learning environment in total and each dimension is shown in table 5.

Table 5

Spearman's Rank-order correlation coefficients between total clinical learning outcomes and each dimension of clinical learning environment as perceived by the participants (n=252).

Clinical learning environment	Clinical learning outcomes	Level
Nurse manager commitment	.40*	Moderate
Student satisfaction	.32*	Moderate
Staff-student relationship	.30*	Weak
Student-patient relationships	.26*	Weak
Interpersonal relationship	.05	None
<i>Overall CLE</i>	.36*	<i>Moderate</i>

* p < .01

Before examining the relationship between clinical learning outcomes and clinical learning environment, the data of both variables were tested for normal distribution by using Kolmogorov-Smirnov. It was found that clinical learning outcome was not a normal distribution. Hence, Spearman's Rank-order coefficient was used to identify the relationship between two variables.

As shown in table 5, there was a significantly positive moderate correlation between total clinical learning outcomes and total clinical learning environment with

r-value of .36 ($p < .01$). Among five components, nurse manager commitment had a highest value of r to be associated with clinical learning outcomes ($r = .40$), followed by student satisfaction ($r = .32$), staff-student relationship ($r = .30$), and student-patient relationships ($r = .26$), while interpersonal relationship had no relationship.

Discussion

Discussion of the results is presented according to the research objectives:

Part I: Clinical learning environment as perceived by the fourth-year baccalaureate nursing students

The results of this study showed that the fourth-year baccalaureate nursing students perceived the total clinical learning environment at a moderate level ($\bar{X} = 68.40$, $SD = 11.90$) (Table 3). This result means that nursing students perceived the learning environment in clinical settings in Vietnam was not good. The score of total clinical learning environment in this study depicts lower than those in the study of Dunn (1995) in Australia and the study of Saarikoski et al., (2005) in European countries. According to Dunn and Burnett (1995), clinical learning environment encompass of various components in clinical setting such as nurse manager commitment to teaching, nursing staffs' willingness of teaching, student-patient relationship, and interpersonal relationship among participants on the ward. The authors indicated that effective clinical learning environment requires positive interacting among these components. However, the findings of this study indicated

that all five dimensions of clinical learning environment for the fourth-year BNSs were at a moderate level.

The finding may reflect the real situation of learning environment in clinical settings for the fourth-year baccalaureate nursing students in Vietnam where there have been insufficient quality and quantity of clinical nurses in clinical settings (VNA, 2010). However, the data from table 2 showed that most of fourth-year nursing students (72.40%) were assigned to clinical setting with large group, so there were inadequate experienced nurses to facilitate nursing student learning. These conditions were illustrated by the items such as only 18.65% of the participants rated they agreed that “they were treated as an individual in clinical settings”, 40.08% of participants perceived their questions were answered satisfactorily and 41.37% of participants agreed that “in planning the shift, allowance is made for nursing students to gain the widest possible experience” (Appendix I-2). These findings have confirmed the results of study by Huy et al., (2010) and Phu et al., (2007) which the learning environment in clinical setting was not conducive to students’ learning. Therefore, this finding may suggest a requirement of lessening number of nursing students in each group to ensure that nursing students have opportunities to approach experienced nurses.

The finding may also reflect nursing education system is currently in a upgrading process (MOH, 2006) which most of nursing schools have lacked nurse teachers. Indeed, there were only 13% of educators who have working at nursing institutions were nurse teachers (VNA, 2009). Study by Huy & Thuy (2009) asserted that nursing faculty responsibility in clinical area appeared to act as facilitators, resource persons, and evaluator rather than role models. Students exposed to clinical

settings mostly worked with staff nurses and nurse managers. However, the findings showed that nurse managers were too busy with important matters in which only 29.77% of participants perceived nurse managers spend time with them and only 34.53% of participants reported that nurse managers had a teaching program for student on their wards (Appendix I-2). Result of this study was consistent with study by Phu et al., (2007) which reported that staff nurses were reluctant to participate in teaching and supervising student because they were limited in teaching skills and inadequate facilitation from faculty members.

Moreover, the 4th year BNSs reported that they were also exposed to clinical placement which contained other student group such as medical students and the third year baccalaureate nursing students. Additionally, most of clinical placements where the 4th year BNSs were practising experienced overload patient admission (Table 2). These findings were similar to study by Phu et al., (2007) that students had difficulty in approaching, communicating with, and providing individual care for patients. Therefore, the 4th year BNSs in this study perceived their learning environment in clinical settings was at a moderate level.

The results from this study showed that students perceived clinical learning environment was lower than those of Dunn (1995) in Australia and Saarikoski et al., (2005) in western countries, which the nursing students' perception of clinical learning environment was being good. The possible reason is that the clinical model for nursing students in those studies was a small group. In addition, in Western countries, the one-to-one relationship such as mentorship and preceptorship of teaching nursing student was implemented for nearly two decades.

The finding that the 4th year BNS perceived moderate level of clinical learning environment indicate that nursing schools need to improve all component of clinical settings. The faculty member should work close with clinical nurses to maintain positive learning environment for the fourth-year baccalaureate nursing students can obtain good learning outcomes.

Part II: Clinical learning outcomes as perceived by the fourth-year baccalaureate nursing students

The results of this study showed that the 4th year BNSs in Vietnam perceived the total clinical learning outcomes at a moderate level ($\bar{X} = 161.46$, $SD = 18.86$) (Table 3). That may be because the 4th year BNSs in this study had completed all theoretical courses and were completing the end-of-program course in clinical before graduation. In this stage, the students had clinical experiences which they encountered from various hospital and community settings (Hoi & Xuan, 2010). In addition, the new graduates were required to have sufficient knowledge; to communicate effectively and efficiently with increasingly informed patient, family member, and healthcare personnel; to be competent practitioners and to have a scientific base for their practice (VNA, 2010).

The findings of the current study were in line with study of Al-Kandari et al., (2009), in that subjects perceived the highest score in student role and caring behavior dimensions, and the lowest score in knowledge dimension. However, in this study the 4th year BNSs perceived the total clinical learning outcomes were slightly lower than those of the Kuwait students. The results also indicated that the learning outcomes that students achieved were different among clinical areas. They reported

the highest mean score of clinical learning outcomes in ICU-Emergency, and lowest mean score in Maternal and Child clinical placement.

The possible reasons probably affects achievement of nursing students in clinical settings is that the expertise of clinical instructors. The statistics by Muc (2009) showed that nursing education in Vietnam lacks nursing teachers; most of nursing institutions have used physicians to guide and supervise both nursing and medical students. Another reason maybe that the qualification of nursing manager and nursing staffs, most of nurses are holding secondary level (82%), and only eight percent of nurses are holding collegial and bachelor level (MOH, 2007). In addition, the demographic data showed that the 4th year BNSs were put to clinical settings with crowded ward environments which include medical students (51.2%) and another-year nursing students (28.57%).

Moreover, Hoi and Xuan (2010) stated that there is a gap between theory and practice in nursing education. The authors stated that hospitals are rapidly updating new technologies, facilities, resources to adapt with health patterns. While nursing institutions are lacks of financial and human resources. These conditions make more and more bridge distance between hospital and nursing institutions; thus, it affects on student learning.

However, the findings of this study showed that the 4th year BNSs have strong accountability and student role. They realized the nursing profession is requiring the graduates posses competence to deal with various patient conditions.

Part3. The Relationship between Clinical Learning Environment and Clinical Learning Outcomes

The results of this study showed that there was a statistically significant positive relationship between clinical learning environment and clinical learning outcomes ($r = .36, p < .05$) as perceived by the 4th year BNSs in The Socialist Republic of Vietnam. Findings also showed the statistically significant positive relationship between clinical learning outcomes with four subscales of clinical learning environment (student satisfaction, student-patient relationship, staff-student relationship, and nurse manager commitment). However, there was no significant correlation of clinical learning outcomes and subscale interpersonal relationship. The results are supported by Henderson et al. (2007) in that positive clinical learning environment had strong influence on nursing students' self-reported knowledge, skills, and attitudes.

The findings of this study showed that nurse manager commitment had a strongest relationship to students' clinical learning outcomes ($r = .40, p < .01$) (Table 5). This finding confirms Fretwell's (1980) findings that the nurse manager was a key figure in establishing and maintaining the learning environment. The nurse manager's influence extends beyond the formal teaching of students to the provision of student-learning opportunities, and establishment of a ward atmosphere conducive to learning (Fretwell, 1980). The result is consistent with the result of the study of Dunn and Hansford in 1997 which showed that nurse manager was key player in determining the clinical learning environment in which nursing students learn.

The result indicated that student satisfaction contributes to achievement of clinical learning outcomes. This study found that there was a significant correlation between student satisfaction and clinical learning outcomes ($r = .32, p < .01$). Based on this finding, a moderate positive correlation was identified between student satisfaction and clinical learning outcomes of nursing students. It was consistent with the result of Dunn and Hansford (1997) that when students play an assertive role in their own learning they were more likely to find learning opportunities. Clinical competence, decision-making skills, and self-esteem were promoted when students had opportunities to learn in clinical settings (White, 2003).

Nursing staffs also play crucial role in achieving clinical learning outcomes of nursing students. The result showed a positive moderate correlation between staff-student relationship and learning outcomes ($r = .30, p < .01$). This finding support the study of Tanda et al., (2009) that close student-staff relationship had a positive influence on student' learning outcomes. This finding could confirm the teaching role of staff nurses in clinical environment because students mainly interact with staff nurses in their learning process. Thus, establishment of good relationship with staff nurse was very important to students to take part in caring team. Conversely, Fretwell (1980) argued that poor staff-student relationship and lack of staff commitment to teaching presented a major constraint to student learning.

The findings of this study showed that student-patient relationship had an effect on students' clinical learning outcomes. It is found that there was a significant correlation between student-patient relationship and clinical learning outcomes ($r = .26, p < .01$).

