Challenges for Nursing Students in the Clinical Learning Environment

Huyen Tram Thi
tranhuyen9090@gmail.com

Follow this and additional works at: https://digscholarship.unco.edu/theses

Recommended Citation
https://digscholarship.unco.edu/theses/104

This Text is brought to you for free and open access by the Student Research at Scholarship & Creative Works @ Digital UNC. It has been accepted for inclusion in Master's Theses by an authorized administrator of Scholarship & Creative Works @ Digital UNC. For more information, please contact Jane.Monson@unco.edu.
UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

CHALLENGES FOR NURSING STUDENTS IN THE CLINICAL LEARNING ENVIRONMENT

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science

Tran Thi Huyen

College of Natural and Health Sciences
School of Nursing
Advanced Nurse Generalist

August, 2019
This Thesis by: Tran Thi Huyen

Entitled: Challenges for Nursing Students in the Clinical Learning Environment

Has been approved as meeting the requirement for the Degree of Master of Science in College of Natural and Health Sciences in the School of Nursing, Advanced Nurse Generalist Program

Accepted by the Thesis Committee:

Jeanette, McNeill, DrPH, RN, CNE, ANEF. Research Advisor

Kathleen, Dunemn, PhD, APRN, CNM-BC, Committee Member

Accepted by the Graduate School

Linda L. Black, Ed.D.
Associate Provost and Dean
Graduate School and International Admissions
Research and Sponsored Projects
ABSTRACT


The study aimed to survey the problems/challenges nursing students of Hong Bang International University (HIU) reported facing in the clinical environment. These factors might be a barrier or motivation for a student's clinical learning. In addition, collecting the information through this research helped explore the real difficulties that might exist when students practice clinical care. This data will help to develop appropriate recommendations to improve the quality of training as well as reduce the burden on nursing students.

A descriptive cross-sectional design was used. Sixty-nine third-year nursing students (58 females and 11 males) of the Bachelor of Nursing Program from HIU, Vietnam participated in answering the Vietnamese version of Clinical Learning Environment Inventory (V-CLEI) to provide an evaluation about the clinical learning environment (CLE). The results have shown a number of challenges and motivation for the students’ learning process in the CLE. The V-CLEI questionnaire was determined to be a reliable tool in this study.

The result of the research indicated some challenges in the CLE for nursing students usually related to interpersonal relationships often with stakeholders or other health workers. Nursing students are not really aware of their role in clinical practice sessions, which could also become one of the barriers for this learning environment.
Furthermore, students are less empowered and dominated by the work they do. However, a high appreciation for clinical instructors could be seen as a motivation to push the clinical learning process for nursing students in Vietnam.

**Keywords:** Challenges, Student Nurses, Nursing Students, Clinical Learning Environment, CLE, Clinical Setting.
ACKNOWLEDGEMENTS

I would like to thank the people who helped me to conduct this thesis. Firstly, I would like to express my deepest thanks to my advisor, Dr. Jeanette McNeill, who directly instructed and encouraged me through her continuous support of my research project.

I would also like to express my gratitude to Dr Faye Hummel for all her kind and encouraging words every step of the way.

I also sincerely thank you Dr. Kathleen Dunemn, who provided professional advice to help me complete this thesis.

I would also like to thank Dean Tran Thi Thuan, Dean of the Nursing Faculty of Hong Bang International University, where I worked and implemented this thesis, for facilitating and providing professional advice to help me complete this study.

I would like to offer my sincere thanks to Ms. Nada Cohadzic who assisted me in editing grammar and structure according to the standard format of the University of Northern Colorado.

Finally, I also want to thank my family and my friends who have been with me for the past time, encouraging and facilitating me to complete Master of Science in Nursing at the University of Northern Colorado.
# TABLE OF CONTENTS

CHAPTER I. INTRODUCTION ................................................................. 1
  Background and Significance of Problem ........................................ 1
  Problem Statement ........................................................................ 5
  Research Questions ....................................................................... 6
  Theoretical Framework ................................................................... 6
  Definition of Terms ........................................................................ 9
  Assumptions .................................................................................. 10
  Limitations .................................................................................... 11
  Conclusion ..................................................................................... 11

CHAPTER II. LITERATURE REVIEW ......................................................... 12
  Introduction ................................................................................ 12
  Review of Literature Regarding the Clinical Setting ...................... 13
  Review of Literature Regarding Nursing Teacher and Teaching
    Strategies .................................................................................. 27
  Nursing Students’ Perceptions Regarding the Clinical Learning
    Environment ............................................................................. 30
  Summary ....................................................................................... 35

CHAPTER III. METHODOLOGY ............................................................... 36
  Introduction ................................................................................ 36
  Research Design .......................................................................... 36
  Population Sample ....................................................................... 37
  Instrument .................................................................................... 38
  Collecting Data ........................................................................... 39
  Data Cleaning and Analysis ......................................................... 40
  Research Ethics .......................................................................... 40
  Summary ...................................................................................... 41

CHAPTER IV. RESULTS ........................................................................ 42
  Introduction ................................................................................ 42
  Demographic Characteristics ....................................................... 42
  Quantitative Findings ................................................................... 44
  Nursing Students’ Perceptions of the Clinical Learning Environment...... 54
Reliability.......................................................................................................................... 56
Summary ............................................................................................................................ 58

CHAPTER V. DISCUSSION ................................................................................................. 59

Introduction ......................................................................................................................... 59
Demographic Findings ........................................................................................................ 59
Quantitative Findings .......................................................................................................... 60
Reliability of the Findings .................................................................................................... 68
Application of Theoretical Framework ................................................................................ 69
Limitations ............................................................................................................................ 70
Recommendations ................................................................................................................ 70
Conclusion ........................................................................................................................... 73

REFERENCES ...................................................................................................................... 75

APPENDIX A. MODIFIED CLINICAL LEARNING ENVIRONMENT INVENTORY QUESTIONNAIRE ................................................................................................................. 85

APPENDIX B. PERMISSION TO USE CLINICAL LEARNING ENVIRONMENT INVENTORY QUESTIONNAIRE ........................................................................................................ 88

APPENDIX C. VIETNAMESE VERSION OF CLINICAL LEARNING ENVIRONMENT INVENTORY ................................................................................................................. 90

APPENDIX D. PERMISSION TO USE VIETNAMESE VERSION OF CLINICAL LEARNING ENVIRONMENT INVENTORY .............................................................. 96

APPENDIX E. PERMISSION FROM NURSING FACULTY AT HONG BANG INTERNATIONAL UNIVERSITY TO CONDUCT STUDY ........... 98

APPENDIX F. CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH: ENGLISH AND VIETNAMESE VERSIONS ....................... 100

APPENDIX G. INSTITUTIONAL REVIEW BOARD APPROVAL ................... 105
# LIST OF TABLES

1. Five Levels of Professional Nursing ............................................................... 7  
2. Demographic Characteristics ........................................................................... 44  
3. Six Subscales in Modified Clinical Learning Environment Inventory ............ 45  
4. Descriptive Statistics of Vietnamese Version of Clinical Learning Environment Inventory .................................................................................................................. 46  
5. Correlation Test Results Regarding Vietnamese Version of Clinical Learning Environment Inventory and Age, Grade Point Average, and Activity Points .................................................................................................................. 55  
6. Correlation Test Results Regarding Vietnamese Version of Clinical Learning Environment Inventory and Gender ................................................................. 56  
7. Comparison of Reliability ................................................................................... 58
LIST OF FIGURES

1. Mean of each item in Affordances and Engagement subscale ......................... 46
2. Mean of each item in Student-centeredness subscale .................................. 49
3. Mean of each item in Enabling Individual Engagement subscale ................. 51
4. Mean of each item in Valuing Nursing Work subscale ................................. 52
5. Mean of each item in Fostering Workplace Learning subscale .................. 53
6. Mean of each item in Lack of Innovation subscale ................................... 54
LIST OF ABBREVIATIONS

AAE: Affordances and Engagement
CLE: Clinical Learning Environment
CLEI: Clinical Learning Environment Inventory questionnaire
EIE: Enabling Individual Engagement
FWL: Fostering Workplace Learning
FWL: Fostering Workplace Learning
HIU: Hong Bang International University
LOI: Lack of innovation
SC: Student-centeredness
V-CLEI: Vietnamese version of Clinical Learning Environment Inventory questionnaire
VNW: Valuing Nursing Work
CHAPTER I

INTRODUCTION

Background and Significance of Problem

Vietnam Nursing Context

The definition of nursing according to the International Council of Nursing (ICN, 2018) is a career that includes care for individuals in the community with the aim of promoting health, preventing illness, and taking care of patients (ICN, 2018). In Vietnam, nurses were previously called assistants to the physicians whereas nowadays nursing is viewed as an independent occupation in the health system. Therefore, nursing has become a field that plays an important role in the treatment and improvement of human health (Kang, Nguyen, & Ho, 2018). Along with the development of medical systems all over the world, nursing in Vietnam has also been developed for specialized areas for each sector of the healthcare system. According to the Ministry of Health's (MOH, 2015) plan for human resource development during the period 2015-2020, Vietnam needs to employ 83,000 more nurses, which will become one of the important branches in the healthcare system. This development was needed to meet the demand for treatment and care for patients in various fields. Therefore, human resources for nursing have been increasing as a result of the development of the health care system and the effort to provide nurses to serve other countries in need.
Nursing Education in Vietnam

Nowadays, the need for trained health professionals in the developing health system in Vietnam has become a challenge for universities and colleges across the country. Most medical and nursing schools have also developed separate curriculum for the purpose of training the next generation’s nurses to meet the growing needs in Vietnam. Students’ capabilities are comprised of what teachers have taught them (Manninen, 1998). Currently, nursing manpower comes mainly from public and private universities across the country. In particular, four-year training programs are used for universities and three-year training programs are used for lower level nursing colleges (Kang et al., 2018).

Along with a theoretical education, practice also plays an important role in the educational program (Jamshidi, Molazem, Sharif, Torabizadeh, & Najafi Kalyani, 2016). Practice is especially important with nursing students because it helps them move from a theoretical study to practice nursing skills and familiarize themselves with the hospital environment (Truong, 2015). Nursing students also have the opportunity to practice and work as nurses in medical facilities. This helps students understand and envision how their future work will be. This first step is essential for students to prepare to adapt to the nursing field.

However, there is a gap between the nursing school and the actual work environment in hospital or clinical settings (Cheraghi, Salsali, & Safari, 2010). For example, modern technologies or equipment in clinical settings can confuse students because they have not been previously exposed to them in school. In addition, contact with stakeholders in the clinical environment can also become a matter of concern for
nursing students. An interview conducted in Iran showed that a nursing student said that she was negatively affected by the bad attitudes from the clinical nurses (Jamshidi et al., 2016). Truong (2015) also noted that students face obstacles in clinical practice when patients and their relatives do not give permission for students to participate in their care. For nurse educators, it is important to know if factors in a clinical setting have a negative impact on students' perceptions and views, and whether these influences negatively affect their education. In medical education, educational environments have long been identified as having a significant impact on students achieving clinical competence (Genn, 2001). Finally, a student's academic performance critically depends on the learning environment they have been provided.

In Vietnam, several researchers have studied the opinions of nursing students when they approach their clinical training. These studies also raised concerns regarding the medical training institutions for health profession students. However, difficulties have not been discussed sufficiently and solutions to overcome difficulties have not been proposed. At the same time, no studies have been conducted at Hong Bang International University (HIU) to investigate this issue. The results of this study provide important information in solving the difficulties of nursing students at HIU, thereby improving the quality of human resources training in the Vietnamese healthcare system. For the reasons above, this study examined the problems nursing students of HIU face when they practice in clinical or hospital settings. The Clinical Learning Environment Inventory questionnaire (CLEI, Newton, Jolly, Ockerby, & Cross, 2010) was used to collect information from the nursing students. The results of the study provided information
from which to make appropriate recommendations to improve the quality of student
learning in the clinical facilities.

**The Research Context: Nursing Faculty of Hong Bang International University**

This research was conducted at HIU, which is a private university located in Ho Chi Minh City. Founded in 1997, HIU has now become one of the leading private schools in South Vietnam. At present, the university has three institutes and 14 different faculty members with more than 40 specializations (majors) in the most important fields needed in society.

The nursing faculty is one of the leading faculties of the Health Sciences Division at HIU, which is accredited by the Ministry of Education and Training and the Ministry of Health. The program first offered courses in nursing in 2008. Currently, the nursing faculty has three training levels including a two-year postgraduate degree—Master of Nursing program, a four-year Bachelor of Nursing degree program, and a three-year College Nursing program. The number of nursing students in 2018 was about 2,000 including both full-time and part-time students. Therefore, HIU’s nursing department has become the main source of nursing graduates for the healthcare system in the south of Vietnam. The curriculum consists of three areas: basic sciences, prerequisite courses and the traditional Bachelor of Science in Nursing program. For subjects of prerequisite courses and traditional Bachelor of Science in Nursing program courses, students must have both theoretical knowledge and practical experience in skill labs at medical facilities such as the Cho Ray Hospital, Children’s Hospital, and Women’s Hospital. As a result, students’ total practical credit accounts for nearly half of the learning time in the curriculum.
These students are instructed and supervised by a HIU teacher and every course includes 20 to 25 students. With such large classes, the instructors are challenged to control all of the students and these students might have difficulties practicing in clinical environments. According to Truong (2015), nursing students argue that too many students in a clinical setting significantly reduce their practice opportunities. In addition, big hospitals such as Cho Ray Hospital or specialized hospitals such as Children’s Hospital are locations where HIU nursing students practice nursing skills and have access to have modern technology. If students are not familiar with the technology, they will have difficulty implementing skills.

**Problem Statement**

As the demand for nursing capacity increases, nursing education has become a priority concern for society as a whole. The Ministry of Health (MOH, 2012) in Vietnam issued the *National Competency Standards for Vietnamese Nurses* in 2012, in which the standard of care practice was specified (Ministry of Health, 2012). Practical issues are the greatest priority in nursing education. The learning environment is no longer limited to lecture halls or skill labs but has been extended to clinical practice facilities. Large hospitals have become essential learning environments that nursing students must experience to complete their nursing education program. This change in the learning environment can be a barrier but it can also serve as a motivator for student learning. Maximizing the student's ability to adapt to the new learning environment is the primary task of nursing schools. To be able to learn nursing care in a clinical environment, students must be provided with opportunities to be fully instructed (Skaalvik, Normann, & Henriksen, 2011).
To enhance the quality of training as well as improve the current level of nursing in Vietnam, it is necessary to consider the context of clinical practice. Investigating the difficulties or challenges nursing students have to face when they practice nursing care is essential. Specific issues that needed to be addressed included ways to reduce the gap between the education nurses obtained and the clinical experience that followed it. This helps students become more confident as they approach their clinical learning environments. Coordination between nursing schools and clinical facilities has also contributed to the success of nursing education. Information collected in this study might bring about appropriate changes to improve the current curriculum of the University of Nursing.

**Research Questions**

Q1 What are the reported barriers to learning in the clinical environment for HIU’s nursing students?

Q2 What factors in the clinical learning environment promote the clinical learning process for nursing students of HIU?

**Theoretical Framework**

Benner’s (1984) theory related to the development of competence in nursing practice, from novice to expert, served as the framework for this study (Handwerker, 2012). Dr. Benner was born in 1942 in California. She is a nursing theorist, academic, and author. In her nursing career, she has been in many positions in various fields such as nursing care, emergency nursing, intensive care unit (ICU) nursing, and home care. She participated in a research project called Achieving Methods of Intraprofessional Consensus, Assessment, and Evaluation and this was a stepping stone for success in her nursing career. Her book, “From Novice to Expert: Excellence and Power in Clinical
Nursing Practice,” written in 1984, served as the foundation for the development of clinical nursing education (Nursing Theories, 2013). This book provided support for the importance of clinical practice, especially in nursing practice (Larew, Lessans, Spunt, Foster, & Covington, 2006). The Dreyfus model was applied by Benner to give five levels of professional nursing in clinical setting including novice, advanced beginner, competent, proficient and expert (McEwen & Wills, 2011). This theory is described in Table 1.

Table 1

Five Levels of Professional Nursing

<table>
<thead>
<tr>
<th>Level</th>
<th>Name</th>
<th>Roles</th>
<th>Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Novice (&lt; 6 Months)</td>
<td>Orientation, choose a mentor, review ANA</td>
<td>Have no professional experience</td>
</tr>
<tr>
<td>2</td>
<td>Advanced Beginner (6m-1 Year)</td>
<td>Core course, chemotherapy course, education for designee role</td>
<td>Can recurrent meaningful situational components- but not prioritize</td>
</tr>
<tr>
<td>3</td>
<td>Competent (1- 2 Years)</td>
<td>Preceptor course, Preceptor students, assume designee role</td>
<td>Beginning to understand actions in terms of long-range goals</td>
</tr>
<tr>
<td>4</td>
<td>Proficient (2- 4 Years)</td>
<td>Preceptor for new staff, certification, mentorship course</td>
<td>Perceives situation as wholes, rather than in terms of aspects</td>
</tr>
<tr>
<td>5</td>
<td>Expert (&gt; =4 Years)</td>
<td>Mentor, leader, succession planning</td>
<td>Have intuitive grasp of the situations and zeros in the accurate region of problem</td>
</tr>
</tbody>
</table>

Source: Benner, 1984, p. 130.

For novice levels, nurses are beginners. They do not have any experience in this field. At this point, they need direct guidance from the instructors to perform their tasks
well. Due to the lack of clinical experience, they are nearly unable to have the independence and flexibility to complete their work. In specific situations, they depend on the instructors and make requests for specific instructions from their instructors in order to complete their tasks (Benner, 1984). Advanced beginner nurses have gained some experience in dealing with specific clinical situations. They are able to be independent in real situations and respond to what they have experienced before. Competent level nurses need to undergo clinical practice of two to three years in a particular field. They can realize long-term goals as well as make their own long-term plans. Proficient nurses have a comprehensive understanding of the clinical field. They have the capacity to know what they are doing right and what needs to be modified according to their plans to be more comprehensive. Finally, expert nurses are experienced and are completely unfettered on the clinical experience. Their mission is geared toward addressing the clinical situation quickly, proficiently, and at high performance levels.

Benner (1984) proposed the new nurse needs to accumulate experience of care and address issues based on clinical situations. To do so, they need to have many experiences in the clinical environment. However, new nurses not only need to obtain practical experiences, they also have to improve their analytical skills. Situational analysis is required to make the right decision to solve the problem (Benner, 1984).

The application of Benner’s (1984) theory has been suitable for the field of clinical nursing education. This framework fit this study because it underscored the importance of clinical practice in which the clinical learning environment is the decisive
factor. Benner's model suits professionals in nursing education to be able to guide their students from the moment they are beginners.

From novice to expert is a long process of nursing education where the application of background knowledge from classroom lectures is not enough. The role of practical education becomes more important. The goal of nursing educators is to guide their students to apply clinical experience in real situations as well as analysis and judgment to make appropriate decisions. It is important that they know what to do and how to do it.

However, these novices are nursing students who have no clinical experience. Therefore, the clinical learning environment and the stakeholders become the determining factors in the success of nursing students. The role of clinical teachers becomes more important than ever. They are direct instructors whose mission is to provide a learning environment that best encourages these novices.

**Definition of Terms**

The main terms used in this study are defined to provide clarity in the discussion of the context, problem, research questions to be addressed, and methods for the study.

**Clinical learning environment.** There are many definitions of the clinical learning environment (CLE). According to Dunn and Burnett (1995), the CLE is defined as a learning place where a network of clinical factors interacts with others. Research by Jamshidi et al. (2016) argued the CLE is an important part of nursing education. Another definition for CLE is associated with a healthcare context and excludes classroom and laboratory environments (Neal, 2016). Nonetheless,
these definitions describe clearly the nature of this environment where many clinical factors influence the learning process of nursing students.

**Clinical stakeholders.** All factors including those related to humans which in the facilities can have both positive and negative effects on students’ ability to learn. Human factors include the clinical nurses, physician, the staff, the patients, family member’s patients, and even nurse teachers.

**Nursing educator.** Nursing educators are defined as nurses who have undergone advanced nursing programs that have sufficient knowledge and teaching skills in the nursing field at medical universities and nursing schools. A nursing educator not only teaches his/her students at lecture halls as well as skill labs but also instructs them at clinics or hospitals (Registered Nurse, 2018). Therefore, the nursing educator’s role is essential in the development of the nursing educational profession. The development of nursing educators provides a favorable condition for the transfer of knowledge as well as capacity to new nurses, which will enhance the quality of health services (World Health Organization, 2016).

**Nursing students.** Nursing students are learners who participate in a recognized nursing education program. During the educational process, under the guidance of nursing educators, they can perform some essential functions and tasks as part of the course and have both didactic and clinical experiences in their educational program.

**Assumptions**

One assumption set for this study was the answers to the questions provided to students would actually give useful information about the difficulties/challenge they have
to face in the CLE. Furthermore, to be able to obtain a fair and accurate result, another assumption was students participating in the study would answer questions honestly and objectively.

**Limitations**

In this study, participants were third-year nursing students who came to clinical settings to practice for the first time. Although they had completed the prerequisite subjects in their curriculum such as Fundamental Nursing with many skills at the skill lab, they had just completed their first experiences in a clinical setting. Their first clinical experiences could have been associated with negative emotions, which might have affected the results of the study. To overcome this limitation, these students were surveyed following to determine whether they were familiar with the CLE.

**Conclusion**

Chapter 1 provided an overview of the background and significance and the problem statement about nursing education in Vietnam as well as the importance of the CLE for nursing students. This was the basis for the development of this study: to survey the difficulties/challenges nursing students in HIU might face in healthcare facilities. In addition, the context of the study site as well as the research objective were also provided to give an overview of this study and Benner's (1984) theory was analyzed to demonstrate suitability to support the development of research.
CHAPTER II

LITERATURE REVIEW

Introduction

Nursing education has long been an essential requirement in the provision of human resources to the health sector. Good clinical nurses are those who have both in-depth knowledge in the medical field and great clinical experience. However, to become a professional nurse, they have to undergo challenging learning processes. Practice at clinical facilities is essential to improve their basic skills as professional nurses. Therefore, the mission of nursing education becomes more essential than ever. The clinical learning environment (CLE) is a major factor that influences the teaching and learning process. This environment is a challenging area when it becomes completely different from the school. Modern technology, all interactions with other people such as doctors, patients, family members, and nurses can all be key elements of potential concerns. So, the purpose of the literature review is to provide a comprehensive picture of the perceptions of students and clinical stakeholders regarding the barriers they might encounter in the clinical setting.

This chapter provides a basic foundation for issues related to the CLE—a collection of valuable medical literature that set the stage for the development of this study. Reliable and selective sources of information were used including the largest
medical and nursing websites in the world, i.e., Cumulative Index to Nursing and Allied Health Literature (CINAHL), MEDLINE, Cochrane Library, NCBI and others. The search strategy was based on key words and commonly used phrases such as the challenges, the difficulties, nursing students, nursing student’s perception, clinical learning environment, clinical setting, and clinical nursing education. Selection of studies was based on two criteria: the relevance of the topic and currency of the study within the last six years. The results of the search were collected from numerous study reports from many sources throughout the world in general and Vietnam in particular. These articles included multi-method studies, systematic reviews, qualitative studies, quantitative studies, randomized controlled trials, and cross-sectional studies. The variety of numerous sources brought strong evidence to the review of literature for this topic. Several valuable studies conducted in northern and middle Vietnam provided useful information for this research because this study was performed at HIU, which is a nursing school in southern Vietnam.

Review of Literature Regarding the Clinical Setting

The role of clinical practice in nursing has long been the focus of research. A systematic review by Williams and Palmer (2014) was compiled from various sources with the aim of providing a literature review of benefits and challenges the CLE brings to the nursing students as well as their experiences and awareness of the CLE. Ten articles related to nursing student’s perceptions about the critical care environment were used in this review. The results of the review found clinical practice was an important factor in improving the nursing student's practical ability. This review also mentioned that a critical care environment that brings great benefits to nursing students is one in which
students accumulate confidence and experience in a multi-professional environment. Sometimes, students might not be able to grasp all the opportunities created. And some reasons cause these barriers. Anxiety of nursing students when practicing in an intensive care environment can be a barrier to the acquisition of knowledge. Along with that, the differences between theory and practice can also become one of the barriers for nursing students. Researchers also argue that in order to overcome these difficulties, effective collaboration between academic institutions and clinical institutions is needed to improve the clinical training system (Williams & Palmer, 2014).

Besides, another qualitative study was conducted in an ICU environment by Vatansever and Akansel (2016) to demonstrate the need for improvements to CLE. The study surveyed the effects of ICU experience on nursing students' learning. This study used a semi-structured interview to survey 18 nursing students from ICU units of a university hospital. The results of the study showed the ICU environment actually affected the clinical learning activities of nursing students. These authors also showed nursing students thought they actually achieved something in their practice in the clinical setting (Vatansever & Akansel, 2016). The importance of practicing for medical students in general and students in particular has never been denied. Of course, real challenges continue to exist. The problems might come from a variety of causes; however, in this study, the aim was to examine the evidence related to the clinical setting such as equipment, interactions among nursing students and stakeholders, teaching strategies from clinical nursing lectures, and student perspectives.
**Infrastructure and Equipment**

Medical equipment is one of the three essential factors that affect the quality of patient care (Stanfield, 2002). Medical equipment at clinical facilities is a prerequisite condition for the implementation of nursing procedures and taking care of patients. Inadequate or over-modern equipment has also become a major obstacle to getting familiar with the clinical environment for nursing students.

Brand (2012) aided in describing such obstacles. The author stated that in the clinical environment where there are many modern and complex types of equipment, staff could easily experience difficulties while using these tools. This problem becomes more challenging for nursing students, especially students who are approaching the CLE for the first time. Safe use of medical devices is not only related to nursing training process, it also affects the ordering of clinical equipment. Brand provided information about the importance of education in using medical devices. When there is new and complex equipment, training is needed for both staff and nursing students (Brand, 2012). Practice is easier for nursing students when they are provided with appropriate equipment as well as instructions on how to use the equipment. This author also mentioned that nurses or clinicians are the bridge to ensure their students are competent and well-instructed in the use of equipment (Brand, 2012).

Practice educational opportunities are significantly reduced when there is not enough equipment and medical devices at clinical settings. Mohammadi, Khodaveisi, Jafarian, and Safari Anwar (2004) also described that the lack of equipment and facilities would negatively affect the practice of nursing students in the CLE. This was easily explained. One of the embarrassing problems students might face when performing
nursing procedures was the lack of necessary equipment. This might make their practice not as perfect as they would like as caring for patients might be delayed due to waiting for appropriate equipment.

A similar study was conducted in middle Vietnam by Truong (2015), a nurse researcher and nursing lecturer in a college. This study surveyed the awareness of nursing students at Khanh Hoa medical college about CLE. This study consisted of two parts: Part 1 was to translate the CLEI questionnaire (Newton et al., 2010) into Vietnamese and Part 2 was the cross-sectional survey to explore nursing students’ perceptions. Truong also mentioned in her research that nursing students were not provided with the necessary equipment to meet their practice demands. In addition, one participant also complained she lost time waiting for the tools to perform her task.

Barriers could also come from lack of other infrastructure, such as practice rooms, libraries, or even discussion rooms for nursing students. A CLE needs to have quiet rooms for students where they can gather and discuss clinical cases or problems they encountered during the practice day. Nursing lecturers also need to use these rooms as a teaching room with fully stocked (or available) teaching tools, such as projectors, boards and makers, when they need to provide clinical lectures to their students. However, in some settings, these needs are almost non-existent or inadequate. In the Truong (2015) study mentioned above, some open-ended questions were given to Vietnamese students. A nursing student complained the classrooms were too small and there were not enough seats for all students (Truong, 2015). This made students uncomfortable in the process of acquiring knowledge from lectures of their clinical teacher in these classrooms.
Another study described these basic requirements about infrastructure were not even readily available for staff at the clinical facility (Jamshidi et al., 2016). Requesting the conference room’s key was always rejected by the nursing staff who said the conference room was reserved for medical students (Jamshidi et al., 2016). This situation was mentioned in other studies. One of them was a study conducted in Iran to investigate the experiences nursing students had in the CLE (Mamaghani et al., 2018). This qualitative study was conducted with a sample of 21 undergraduate nursing students. The results showed students were not satisfied with CLE. In this study, nursing students also complained that while participating in the CLE, they did not have access to welfare facilities such as a rest room or dressing room (Mamaghani et al., 2018).

The aforementioned studies demonstrated that since practicing in a clinical setting and taking care of patients was not the only demand of nursing students, the students reasonably wanted more than the resources they were provided. Students had the right to request adequate supplies or equipment for their pr as well as to have access to the basic needs of rest rooms, dressing rooms, or meeting rooms. These could have partially contributed to the negative perceptions of nursing students in the CLE, thereby becoming barriers in the clinical education of these students. A stratified phenomenological investigation was conducted in China to survey experiences Chinese nursing students had in the CLE (Shen & Spouse, 2007). Nine students from different academic years were invited to participate in this study. Data were collected in two ways: a semi-structured interview and from student diaries. This study indicated dissatisfaction as well as other challenges they encountered in CLE had increased the dropout rate of nursing students.
(Shen & Spouse, 2007). This had become a barrier in the training of a health workforce clinical educators had faced.

**Clinical Stakeholders**

Another aspect of the challenges nursing students faced in the CLE were clinical stakeholders who worked directly in the department or those involved such as head nurses, nurses, physicians, and patients or their family members. A systematic review in Iran, compiled from various studies, acknowledged the relationship between students and these stakeholders and their interactions represented the highest priority in considering stressors in CLE (Changiz, Malekpour, & Zargham-Boroujeni, 2012). These are the main groups nursing students must connect to and interact with frequently if they want to complete their learning successfully. Some challenges nursing student faced with CLE came from clinical staff and patients (Neal, 2016). Relevant factors from clinical stakeholders could be positive or negative. Truong (2015) also described this problem in her study, reporting some students said they were uncomfortable with clinical nursing staff and they expected more kindness from these nurses. However, in this study, there were also reports from students who believed they were helped from nursing staff at this ward while doing a nursing procedure to care for a patient.

On the one hand, the presence of nursing students at CLE was a favorable factor for both clinical faculty and medical staff, especially ward nurses. Clinical nurses also acknowledged they had the support of students when they visited their department. A semi-structured interview was conducted with six registered nurses (RNs) who supervised nursing students to collect their opinions regarding clinical learning for this medical-surgical department (Neal, 2016). These RNs agreed the clinical learning
process really brought tremendous value to both themselves and students in practice. As the clinical nurse’s tasks became more and more difficult, nursing students were an effective aid to reducing the workload. These students helped them perform simple nursing procedures such as taking blood pressure and checking the temperature for patients as well as more complex tasks (Neal, 2016).

In addition, teaching not only came from clinical teachers but also from nursing staff who worked directly in healthcare facilities (Neal, 2016). Participation in nursing duties in the clinical setting of nursing students provided opportunities for registered nurses to engage in the teaching role. These clinical nurses could answer questions asked by nursing students or guide them directly in performance of nursing skills. In Neal’s study (2016), the research purpose was to help nurses describe their experiences with nursing students in the CLE. The qualitative study was performed using a semi-structured process. The participants interviewed were six non-preceptor nurses who worked in patient hospital units. They also participated in interviews for about one hour. One participant mentioned the joys came from imparting knowledge as a teacher brought satisfaction for registered nurses in CLE (Neal, 2016).

Alraja (2011) combined quantitative and qualitative methods in her study at the University of Manitoba with 61 nursing students in a bachelor’s program. This researcher’s goal was to investigate perceptions of nursing students about their CLE as well as collect their recommendations to enhance it. This study indicated students always preferred a CLE with higher level acuity and these tasks belonged to clinical nurses and nursing teachers as well as related organizations. Alraja also mentioned that the students said they had received a positive response from medical staff at the clinical setting
including answering difficult questions and explaining something that was happening to their patients (Alraja, 2011). This could be seen as an advantage of the good interactions between clinical staff and nursing students. They helped each other in the process of performing their tasks and creating a happy relationship when they completed those tasks. For these reasons, some clinical nurses were available to help nursing students in their ward. A study conducted by Silva, Wimalasena, Jayalath, Miranda, and Samarasekara (2012) showed some nurses were always willing to support students when they needed help. In this study, 45.5% of nursing students said they found a good interaction between them and clinical nurses (Silva et al., 2012).

Another qualitative study was conducted to survey nursing students’ experience of learning in the CLE (Ranse & Grealish, 2007). Twenty-five nursing students from second and third-academic years were participants in this study. The results showed participation in the clinical environment was valuable in practical studies for nursing students (Ranse & Grealish, 2007). These authors also noted nursing students received approval as well as instruction from nursing staff for participating in their work. This really brought great benefits to nursing students in clinical settings; students always felt safe because someone was willing to help them in that complex environment.

On the other hand, Timmins and Kaliszer (2002) reported one of the stressors for students came from relationships and interaction with staff in clinical settings. In this study, a questionnaire was provided to 110 Irish nursing students in their third year of academic study to investigate the stressors for nursing students while practicing in the CLE. In particular, the results indicated five factors caused stress for students at a clinical setting: academic difficulties, relationships with clinical staff and nursing
lecturers, clinical experiences, finances, and death of patients (Timmins & Kaliszer, 2002). Hence, healthcare workers in general and ward nurses in particular played an important role in the practical education of nursing students in hospitals. Although these staff members did not directly guide students, they might have indirectly affected the outcome of the nursing students' learning. They had the right to allow students to practice nursing skills and care for their patients. They also provided equipment, giving specific instructions to students in performing healthcare procedures.

Of course, clinical nurses have the most impact on the attitude of nursing students. According to Mamaghani et al. (2018), one of the results regarded an inadequate interaction between staff in a CLE and nursing students. One of the major factors that hindered the communication and interaction between nursing staff and students was the negative attitude of these nurses (Mamaghani et al., 2018). In Truong's (2015) study, one student said, “Nurses shouted at me when I did something wrong (even a small mistake)” (p. 80). Complaints from medical staff sometimes occurred in the patient's room in the presence of the patient, which made students confused and embarrassed, even losing the trust of the patient for implementation of the next healthcare service. In Alraja’s study (2011), nursing students described they felt "belittled" in the CLE in front of patients and their families and that staff talked behind their backs. This really became a negative factor in clinical practical education. Sometimes, the dissatisfaction of the medical staff in the clinical environment strongly affected students' emotions. Nursing students reported they felt the greatest stigma came from the behaviour and attitude of registered nurses (Jamshidi et al., 2016). As a result, students
might have become less confident in performing any healthcare procedure due to fear of being ridiculed in front of other healthcare workers as well as patients.

Likewise, the concept of "bully culture" was discussed in another study. Mamaghani et al. (2018) noted this behaviour could be seen in all subjects involved including physicians, head nurses, and ward nurses. Nursing students indicated they were not allowed to perform tasks as intern nurse practitioners and did not get involved in real clinical educational processes because they had to do odd jobs and became "servants" of these nurses (Mamaghani et al., 2018). They had even experienced decentralization between nursing students and medical students in CLE. Nursing students were not able to have their basic needs met regarding having access to dressing rooms, rest rooms, and even the library because these were only for medical students (Mamaghani et al., 2018).

Another study also mentioned this distinction—when the head nurse asked that whenever required, nursing students would give seats to medical students (Jamshidi et al., 2016). This was completely unreasonable and had the potential of causing negative perceptions about the nursing field. Nursing students might have felt their profession was not worthy of respect and their real job was only to assist physicians or others. This was a big challenge nursing students needed to overcome if they really wanted to become clinical nurses in the future. The greater risk that might occur from such negative behaviours in clinical education was the increasing rate of nursing students who wanted to leave the nursing field. This might be explained in that they sought a more respectful learning environment.

Clinical experience and knowledge of clinical nurses are rich sources of material that contribute to the clinical learning process of nursing students. Nursing staff-student
collaborations play an important role in two-way imparting of knowledge. Therefore, if this interaction does not happen, there is a disadvantage for the students themselves. However, this was becoming a top concern when most of the students’ comments regarding the clinical staff were negative (Alraja, 2011).

This was corroborated by recent studies in both Vietnam and other countries studying the problem. "Inadequate," "be not respected," and even "be bullied" were comments frequently used in the abovementioned research studies (Smith, Gillespie, Brown, & Grubb, 2016). Situations for learning have become more complex and students were no longer self-reliant in their own environment, where they should be the center. One of the challenges in the CLE that nursing students face might come from an unsuccessful interaction between clinical nurses as well as other stakeholders and nursing students. Ghodsbin and Shafakha (2008) noted non-cooperation from nursing staff was a major barrier to clinical education.

One assumption was that what brought uncomfortable feelings or noncooperation came from nursing staff toward clinical students. In Neal’s (2016) study, in which researchers surveyed the opinions of clinical nurses about the CLE, almost all participants shared their workload was too much to spend more time teaching nursing students. They indicated it was really difficult to guide nursing students in the CLE when their patients were in need of care. This became a challenge for clinicians to complete both the role of clinical instructor and clinical nurse. There was too much work to do for a registered nurse including healthcare procedures, maintaining the room hygiene, and maintaining medical records and other documents along with the large number of patients. Therefore, clinical nurses could hardly participate in any other activities such as
teaching students. The results of another study also complemented this statement when it reported 46.7% of nursing students thought clinical nurses were really busy with their work (Silva et al., 2012).

Sometimes the presence of nursing students and their involvement in the tasks of clinical nurses had a negative impact and increased the workload for clinical nursing staff, i.e., answering relevant questions for students (Neal, 2016). Instead of having to instruct a student to do something, these clinical nurses preferred to do it themselves because it was safer and faster. One nursing staff member in Neal’s (2016) study also said when students engaged in their work, they were responsible for students’ activities as well as the patient’s safety, which was of utmost concern. In addition, if these students performed incorrectly at some stage, the clinicians must correct those mistakes and this might cause work delays. For example, a student might perform an intravenous procedure and then inject medication or fluid in the wrong place. This ward nurse would have to perform the procedure again, finding a suitable vein site as well as explaining the situation to the patient. This could cause increased challenges for clinical nurses. Also, clinical nurses sometimes expressed discomfort or yelled at students over their mistakes. Maybe this was one of the reasons clinical nurses did not interact much with their students, even at times ignoring the presence of nursing students in their work. Finding a balance between patient care at the clinic/hospital, where clinical nurses worked and taught clinical skills to student nurses, was a huge challenge for them; however, this was essential in improving the quality of clinical training (Neal, 2016). The gap in the relationship between nursing students and ward nurses was documented in the literature.
Overcoming this barrier was not only the task of the student but also of other stakeholders. Nursing teachers could act as a bridge to ensure effective interaction.

Other equally important stakeholders might have a positive or negative impact on the student's CLE—the patients. Patients are the clients nurses must serve. They are vulnerable and sometimes their health conditions affect their attitude as well as the way they communicate with others. Meanwhile, patients have the right to refuse to be cared for by a nursing student who does not have any recognized degree in nursing field. A barrier might come from patients and their families because they do not want to be cared for by students (Truong, 2015).

Silva et al. (2012) also agreed the non-cooperation of patients was a barrier in the CLE. Trust was the crux of the problem. Patients would only agree to be cared for or have an intervention performed by a physician or nurse whom they really trusted. To the patients, this meant they were “placing a bet” with their health and lives on medical staff. Also, patients often believed the students who practiced in the CLE did not have enough knowledge and experience to be able to care for them to the extent clinical nurses did. This was a common reason patients often used when they refused to be cared for by a student. Other reasons came from many aspects but most came from lack of knowledge, lack of confidence, or poor communication of nursing students. Patients had the right to refuse injections administered by student nurses. Unclear explanations, stuttering, confusion, or lack of confidence in nursing students might influence the decision of the patient. Some students also agreed good communication was an important factor in the treatment and care for patients (Vatansever & Akansel, 2016). However, this was still a
big challenge for nursing students when they experienced the CLE for the first time and had little experience in dealing with real clinical situations.

The variety as well as complexity of patients’ diseases in the CLE were also a challenge for nursing students. Diversity of patients brought a rich context to help students experience more as well as provide real practical opportunities (Neal, 2016). However, this diversity might also become a challenge if students do not really have enough knowledge to experience them. The ICU is always a complex environment with a variety of diseases as well as procedures/techniques of caring; sometimes, students were confused and had difficulty becoming familiar with all of these procedures (Vatansever & Akansel, 2016). Is this really a barrier that needs to be overcome in the CLE?

By contrast, a clinical environment with few patients and non-severe diseases reduces the chances for accessing the right types of patients for nursing students. According to Decree 111 of the Vietnamese government (2017), clinical facilities qualified to meet the student’s educational demands must be hospitals/clinics at level 2 or higher for nursing bachelor’s programs. This ensured the diversity and complexity of the patient to meet the learning and practical needs as an appropriate CLE. However, according to Truong (2015), participants indicated a large number of students in a ward reduced their opportunity to practice and care for patients in that ward. Too few patients and many students needing to practice resulted in reduced access to patients. The tasks were equally distributed to the nursing students, making them less practiced. Silva et al. (2012) also determined many students on a ward was one of the CLE’s barriers. According to Decree 111, a standard CLE for nursing students was required to maintain
the restriction of three students per patient in each department or ward. This ensured a uniform distribution of practical opportunities for nursing students.

**Review of Literature Regarding Nursing Teacher and Teaching Strategies**

Teachers and teaching strategies have long been an important element in the learning process of students. This statement is truer for practical learning in the CLE where students might become more passive and depend partly or entirely on the. Thanh (2010) described that Vietnamese students have long been used to a passive education where they received instruction from their teachers and their own personal choices or accountability seemed to be minimal. Students were so familiar with teacher-centered teaching methods that their independent abilities in the learning environment were not high. When students practiced in clinical settings, nursing instructors were like a bridge to help connect their students with CLE-related elements. The mentor was a determining factor to provide the opportunity for students to learn in challenging clinical settings (Harrison-White & Owens, 2018).

Therefore, the role of clinical lecturers as well as the selection of appropriate teaching strategies are very important in a student’s academic performance. Recent studies, however, identified clinical lectures as one of the factors affecting nursing students in the CLE. Stimulating academic learning excitement as well as inspiring a passion for the nursing profession is a difficult task clinical educators must overcome. When students face a complex and diverse context in CLEs, they might be more likely to be confused and distracted by negative emotions. Difficulties or troubles students might encounter in the CLE could make them frustrated and abandon their learning goals. Nursing students might be saddened to witness the death of a patient or might be
tormented by their mistakes in clinical settings. Hence, the role of the lecturers becomes more important than ever. Not simply a mentor, the teacher might be a friend or a colleague who shares their experiences with students. The person the student interacts with most is their teacher and the way the instructor communicates with their students affects the clinical learning process in the CLE (Jamshidi et al., 2016).

Issues related to nursing lecturers are still recognized as an advantage or challenge for nursing students. Lecturers who are always optimistic provide a positive outlook on what happens in the CLE, which makes students more comfortable and happier. In the study conducted in Vietnam by Truong in 2015, all participants stated the clinical teachers were too busy to be able to pay attention and help each individual student. Too many students in one ward could lead to difficulties in controlling all nursing students’ activities by the instructor. When students perform interventional procedures that might put patients at risk, such as administering injections, changing dressing, or taking blood samples, they are required to do them under the supervision and guidance of the instructor. However, if the instructor was too busy, these students would not be allowed to perform these procedures on patients. Fair division of assignments and instructing nursing students to perform procedures in a safe and effective way are important ways clinical teachers impact the CLE (Neal, 2016). However, this was one of the barriers for both clinical trainers and students. Coordinating and balancing the work of all students present at the clinic as well as providing equal opportunity for them has never been an easy job.

Teaching strategies were also an important category researchers have studied. Helm (2007) mentioned an experience of a clinical session in a CLE. Nursing instructors
provided opportunities to their students for discussion of clinical issues. The atmosphere of the discussion was comfortable and not threatening. There was always homework as well as assignments for students to complete for their discussion meetings (Helm, 2007). Students seemed to be more comfortable and at ease acquiring clinical knowledge from their teachers. These students became the center of the clinical learning process. This change made the nursing students interact with the stakeholders more (Irum, Iqbal, & Naumeri, 2018). Student-centered teaching methods have been one of the key reforms of the Vietnam in recent years. However, these changes have not achieved the expected results (Pham & Renshaw, 2013). Meanwhile, maintaining old teaching methods such as teacher-centered teaching could bring disadvantages for Vietnamese students in clinical facilities.

Each nursing instructor has his/her own various teaching strategies for approaching their students. However, some students thought the teaching methods of some clinical lecturers were inappropriate and lacked organization (Mamaghani et al., 2018). Most Vietnamese students followed a certain path in their learning. Students most likely imitated what clinical teachers or clinical nurses had done before. Therefore, the role of clinical trainers was extremely important in establishing a suitable teaching plan or strategy so nursing students could understand what they were doing and why. However, in the current clinical education context, nursing lecturers often focused on helping their students perform the clinical procedures as well as improve skills rather than providing basic knowledge and explaining why they needed to do it (Mamaghani et al., 2018). This could lead to negative consequences such as increasing the distance between theory and practice.
Practice time directly affects a CLE. The length of time for a student at a clinical facility could have a positive or negative effect on the student's academic outcome. A program that was either too short or long created problems. If the time at a ward is too long, students will not have many chances to experience different wards because they are likely to spend their full time with only place rather than dividing among many facilities. However, if the practice time at a ward is too short, students will not have access to a variety of diseases and special procedures in this ward. In a study in Vietnam, 27 nursing students said their practice time was too short and should be increased to provide for more practice opportunities (Truong, 2015). These students also shared their schedule was not balanced when they had to take part in both clinical practice and classroom lectures (Truong, 2015).

Interaction between nursing teachers and students is a precondition for the success of clinical learning process. In fact, clinical teachers were identified as the bridge between the nursing school and the CLE. However, recent studies pointed to a number of issues related to teaching strategies used by clinical trainers that might be challenges nursing students might face in CLE.

**Nursing Students’ Perceptions Regarding the Clinical Learning Environment**

Nursing students are vulnerable to the effects outside the clinical environment. These students are "novice" in Benner’s (1984) theoretical model. They are beginners who have never had the opportunity to experience the clinical environment. The lack of self-confidence, knowledge, and skills are three basic issues these students face (Jamshidi et al., 2016). This really becomes the biggest barrier for nursing students when they come in and practice in a CLE. Confidence is a factor that determines success in all
areas. Silva et al.’s (2012) study showed 44.8% of nursing students said they felt nervous and anxious when they performed a procedure to take care of patient alone. Without enough confidence in their knowledge or skills, students could not perform procedures correctly. In most CLEs, students were not confident enough to be able to take care of their patients independently and sometimes they could only observe clinical nurses doing care (Truong, 2015). Thus, many opportunities to access clinical situations were greatly reduced as students became less confident and passive. Other studies also showed one of the most important factors affecting a CLE was a nurse’s lack of confidence (Panduragan, Abdullah, Hassan, & Mat, 2011). Panduragan et al. (2011) used a cross sectional quantitative study to survey 189 nursing students from year one to year three in a nursing school in Malaysia. A troubling result was 90.5% of nursing students felt a lack of confidence in providing patient care (Panduragan et al., 2011).

Students sometimes felt undue stress while performing invasive procedures, such as intravenous injections, even though they were able. They often relied on the supervision of a clinical teacher to perform the procedure with confidence. This suggested confidence played an important role in students’ activities in clinical settings. Mamaghani et al. (2018) also noted one of the elements that made the interaction and communication inappropriate was the lack of confidence among nursing students. Confidence also affected the communication process of nursing students with patients or medical staff at the department. In front of a patient, student's embarrassment, shyness, or nervousness could diminish a patient’s feeling of trust in the student nurse.

Other negative emotions students had could result from different variables. Patients with severe medical conditions at a ward where nursing students practiced could
also be a stressful factor for them. An experience of witnessing a dying patient could be the worst experience for a student. Learners could often be shocked or experience grief about the patient's death (Vatansever & Akansel, 2016). In addition, students felt the hospital environment was complex and a difficult context to access. This was particularly true for high-stress clinical departments such as the ICU or the emergency department. In the study of a CLE in an ICU (Vatansever & Akansel, 2016), nursing students often felt the ICU was a complex environment and this made them anxious to approach it. In an ICU, students see patients in comatose states and modern machines surrounding the patients, which was one of many stressful factors for students (Vatansever & Akansel, 2016). Furthermore, sometimes negative elements that came from the clinical environment made the students feel stressed. If nursing students do not know how to balance these elements, they easily fall into a state of panic and instability in thought. Then what should be a practical experience becomes tainted with negative associations. Challenges from the clinical learning environment have brought distress and feelings of fatigue to nursing students (Jamshidi et al., 2016). Sometimes nursing students do not really realize the negative effects that might come from daily stressful situations in the CLE; over time, the impact becomes gradual and consecutive on nursing students and can pose potential risks for a student’s psychological and clinical learning outcomes. Students do not immediately identify stresses that are happening around them because it could happen during a practice period (Lofmark & Wikblad, 2001). Fear could lead students to refuse to participate in patient care and learners would gradually want to abandon their duties and wish to be in other positions with less contact with the patient, limiting their opportunities for professional development (Molesworth, 2017).
However, fear and stress sometimes might be helpful if students conceptualize it as an opportunity. In the Neal (2016) study, participants agreed the value of the CLE was undeniable as they provided opportunities for rich practice in each clinical context. Its role was extremely important as it could motivate students to improve their knowledge and skills through practice. Students who knew how to transform the challenges they faced into positive aspects often had a good approach to their CLE and achieved positive results (Sobral, 2004). Therefore, changing a student’s perception to the clinical setting to be more positive makes the clinical learning process easier for the student. If students recognized challenges they were likely to face, careful preparation would help them cope with real situations. Some students realized they needed to change by participating in the clinical practice seriously in order to improve their ability (Vatansever & Akansel, 2016).

Knowledge gaps not only come from theoretical lessons in classroom but can also come from basic skills in nursing procedures in the CLE. Students who participated in Jamshidi et al.’s (2016) study shared they were really confused when they performed blood pressure measurements because they could not hear the sound of the pulse while others shared they could not provide the medicine for patients because they did not know what the drug was or the purpose of the drug (Hettiarachchi & Chandana, 2012). This could be explained by the fact that these cases often occurred with nursing students who were exposed to a CLE for the first time when had not yet been prepared for their profession (Hettiarachchi & Chandana, 2012). Benner (1984) also described these beginners as totally unaware of the problems they could face in the CLE. Therefore, research maintained that in order to improve and enhance their capacity, novices needed to observe and analyze what they saw in the clinical area.
Stress and anxiety are often the highest with nursing students in their first-time access to the CLE. However, once they become familiar with the clinical setting and accrue certain experiences in the nursing field, learners can understand what tasks they must do in the ward and become more professional and independent. They might have the knowledge to deal with some real clinical situations. Students become more confident after a practical period in CLE because they become familiar with the environment of the hospital (Jamshidi et al., 2016). The preparation of knowledge is essential for nursing students in the face of opportunities and challenges in their clinical practice (Helm, 2007). If they participate in clinical practice at a department, they need to familiarize themselves with common diseases, medicines, or procedures that would be commonly observed in this setting. In turn, this would help them become more positive in the necessary tasks involved with taking care of patients. In fact, students tend to find opportunities to directly care for patients and look for different experiences in the CLE (Alraja, 2011). The care plan is a part of those preparations and these plans are not only made on paper. They can be built through short discussions. Students can interact and communicate with each other to review it briefly each morning before joining a clinical case (Helm, 2007).

The difference between a nursing school learning environment or skill lab and a CLE is the CLE is real in the sense students are practicing nursing on patients (Silva et al., 2012). Practical learning in hospitals/clinics is becoming more complex and different, where the clinical context is defined to include stakeholders for nursing students. Practical and diverse clinical situations require students to integrate their knowledge, skills, and attitudes to solve problems most appropriately.
When in the hospital environment, tools and techniques that were sometimes more modern and professional than the classroom made nursing students confused. For example, the wall-inside oxygen system in hospitals is completely different from the small oxygen bottles students studied in the lab. Most nursing students have only vague or general knowledge when they go to a new clinical setting (Taylor, 2000). These factors could really become a barrier that contributes to the challenges nursing students face.

**Summary**

Clinical education has long been a part of nursing education (Changiz et al., 2012). The clinical context is defined as a diverse environment where both opportunities and challenges co-exist (Neal, 2016). This review of literature provided some concrete evidence of the advantages and disadvantages experienced by nursing students in the CLE. Most studies have shown the gaps between nursing schools and clinical learning environments really exist (Changiz et al., 2012). Also, there are the challenges students must pass to complete their courses; if the clinical teacher as well as the nursing students cannot balance these difficulties themselves, these barriers become larger and more dangerous. Ultimately, these factors negatively impact the educational demands of nursing students. Building an ideal clinical education environment is not just about an individual or an organization's mission because it requires the close cohesion of a network of relevant factors including lecturers, teaching strategies, and stakeholders. Chapter II provided evidence for the premise of developing plans for an ideal clinical environment.
CHAPTER III

METHODOLOGY

Introduction

Chapter III describes methods and tools for implementing this study. The purpose of this section is to present how the research procedure was conducted in order to answer the research questions. The research methodology and instrument used as well as the information on the data collection and analysis process to complete this study are also presented. Finally, information on the protection of human subjects is included.

Research Design

A research method determines population, sampling process, implementation tools, as well as data collection and analysis methods (Grove, Burns, & Gray, 2012). Therefore, the selection of appropriate research methods is extremely necessary. This study was carried out as a cross-sectional study. Cross-sectional studies are performed at one time or in a short period of time. These research methods are often used to increase awareness and understand some characteristics or estimate the size of a problem. These kinds of studies also explore the knowledge, attitude, and behavior of the population surveyed about the problem/topic to propose interventions (Levin, 2006). Therefore, using a descriptive cross-sectional method was suitable for this thesis because this study was conducted for a short time after nursing students completed their clinical practice course at a hospital. The main goal of the study was to understand the
difficulties/challenges nursing students faced in a clinical setting, the clinical learning environment, where they were practicing as students.

**Population Sample**

The population of this study was nursing students who were attending a registered nursing program of study at Hong Bang International University (HIU). The participants were selected from third-year nursing students in the Bachelor of Nursing program at HIU, Vietnam. The sampling method was a full sample from the list of eligible third-year nursing students provided by nursing faculty.

**Inclusion Criteria**

Only third-year nursing students participating in a Bachelor of Nursing program at HIU were included in the sample. Students had completed a clinical practice course of medical care and surgical care at Cho Ray Hospital with a total practical time of six weeks beginning from December, 2018. These students also had clinical experience in caring for patients at Cho Ray Hospital—the largest hospital in Ho Chi Minh City. The study participants voluntarily consented to participate in the study.

**Exclusion Criteria**

Students who did not participate in or complete this clinical practice courses did not pass the medical surgical course in Fall (2018) and were excluded from participation in the study. Also, any students who did not complete the questionnaire were also excluded. Finally, students had the opportunity to exclude themselves by not agreeing to participate in the study.
**Instrument**

The CLEI questionnaire was the main tool used in this study (see Appendix A). The questionnaire developed by Newton et al. (2010) included six subscales comprised of 50 items (41 original items and eight parallel preceptor items; see Appendix B for permission to use the CLEI). The six subscale questionnaire included 16 items on Affordances and Engagement, 18 items on Student Centeredness, four items on Enabling Individual Engagement, three items on Valuing Nurses’ Work, six items on Fostering Workplace Learning, and three items on Innovative and Adaptive Workplace Culture. Each item was rated based on a 4-point Likert scale that included the following ratings: 4 = *Strongly agree* meant the item of performance was all true, 3 = *Agree* meant the item of performance was more than half of the item but not complete, 2 = *Disagree* meant the item of performance was less than half of the item, and 1 = *Strongly disagree* meant the item of performance was not adequate.

Moreover, this questionnaire was translated into Vietnamese by Truong (2015) in her study (see Appendix C). This questionnaire was used for collecting data and contains two sections (see Appendix D for permission to use V-CLEI). In the first section, the demographic characteristics included age, gender, grade point average, and activity point of second-year nursing students. In the second section, the V-CLEI recognized students' perceptions of aspects of the CLE. This questionnaire included 50 items related to factors affecting the clinical setting. The 4-point Likert scale used in Truong’s study was the same scale as Newton et al.’s English version (Truong, 2015).
Validity of the Instrument

The V-CLEI (Truong, 2015) was assessed for content validity by a panel of 10 Vietnamese professional nurses including four experts from the university, two newly graduated nurses, and four registered nurses. The results showed the V-CLEI was equivalent to the English version (Truong, Ramsbotham, & McCarthy, 2019).

Reliability of the Instrument

The overall Cronbach's α of V-CLEI was 0.88. The results after analysis of the data were accepted if higher than 0.8. However, there was a substantial difference in the Cronbach's α values of the six subscales (Truong et al., 2019). The α value was 0.75 for Affordances and Engagement, 0.74 for Student-centredness, 0.60 for Enabling Individual Engagements, 0.66 for Fostering Workplace Learning, 0.58 for Innovative and Adaptive Workplace Culture, and 0.19 for Valuing Nursing Work.

Collecting Data

The data collection process involved six steps. First, the researcher came to HIU to approach and introduce the purpose and methods of research and asked permission to investigate their third year nursing students (see Appendix E for permission to conduct study). Second, the researcher met the student participants and explained the purpose and benefits of the study. The researcher had to ensure this survey would not affect the results and learning outcomes of participating students in this study. Along with that, the research participants needed to sign two of the same consent forms: one for researchers and another for study participants (see Appendix F). Third, every participating student in this study was given a questionnaire (V-CLEI) to survey their opinion about the CLE
where they had just undergone a professional clinical practice experience. Finally, participants answered and returned the survey questionnaire.

**Data Cleaning and Analysis**

After the data collection process was complete, this researcher checked to make sure all the required data were collected fully and accurately. The collected data were then analyzed by SPSS (Statistical Package for the Social Sciences) software and data of each item were entered (1 = 1, 2 = 2, 3 = 3, 4 = 4). For negative questions, it was necessary to reverse the code when entering it in SPSS (meaning 1 = 4, 2 = 3, 3 = 2, 4 = 1) before calculating the total points for the subscales and the total points of the questionnaire. Total points of subscale were equal to the total points of all questions in that section and the total score of the questionnaire equaled the total of six subscales. Higher scores indicated a higher assessment, or greater value, of the clinical learning environment from participants.

**Research Ethics**

The research was done under the permission of the Institutional Review Boards of the University of Northern Colorado and Hong Bang International University (see Appendix G). The study had to abide by the following ethics criteria. The first criterion was the respect for the participants. Subjects voluntarily took part in the study and had a thorough explanation of the goals of the study. Data acquired from the study were respected as private and the participants could withdraw from the research whenever they wanted. The second indicated the researcher’s kindness; a researcher must maintain a balance between benefits and harms for the participants. The third criterion ensured protective methods were in order for the subjects. Data security and coding information
on the computer were used to identify the participants. Identifying information about the participants was not used in any publication of the results as results were reported in the aggregate. The final criterion ensured the equality of the study and stated that subjects were monitored and taken care of equally.

Summary

Chapter III briefly described the method as well as the steps needed to carry out this study. The sections included the research design, population, sample, instrument, collection, and analysis of the data as well as research ethics. These are important methods to prepare for the conduct of the study.
CHAPTER IV

RESULTS

Introduction

The study was conducted to explore the challenges nursing students of HIU reported facing in the CLE. Therefore, the results of this study played an important part in finding problems that existed in the CLE as recorded by HIU nursing students. Chapter IV presents and describes the results obtained after data collection and the analysis process including demographic statistics, results of measuring the reliability of this scales, as well as the statistical analysis of cognitive evaluation of nursing students on CLE.

Demographic Characteristics

In this research, all 70 third-year nursing students of nursing bachelor’s at HIU were invited to participate. Of the 70 students, 69 agreed to participate in the V-CLEI survey. Participation rate accounted for 98.6%. All collected questionnaires were complete. As a result, the number of students aged 21 years of age accounted for the highest proportion at 69.6%. Only four students (nearly 6%) were younger than 23-years-old.

High school lasts from the age of 15 until the age of 17. To graduate from high school, students must take the Vietnam High School Graduation Exam of the Ministry of Education and Training of Vietnam. Students attend college from the time they are 18-
years-old. The typical age of university programs in Vietnam is usually between 18- and 23-years-old. Therefore, this sample was from a young population suitable for university age in Vietnam. The number of female students participating in the survey was 58 of 69 students, accounting for the majority (84.1%). Nearly half of the grade point averages (GPAs) of nursing students were Average good (6-6.99), accounting for the highest percentage. It was followed by Good at 36.2%; only one student with a Very weak GPA (0-3.49) was included. Activity points accounted for the highest percentage of students participating in this study at Good level (7-7.99), accounting for 68.1%; no students had activity points below average. Frequency and percentage ratios of demographic factors are described in Table 2.
Table 2

**Demographic Characteristics**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Result (n)</th>
<th>Result (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 years old</td>
<td>48</td>
<td>69.6</td>
</tr>
<tr>
<td>22 years old</td>
<td>12</td>
<td>17.4</td>
</tr>
<tr>
<td>23 years old</td>
<td>5</td>
<td>7.2</td>
</tr>
<tr>
<td>&gt;23 years old</td>
<td>4</td>
<td>5.8</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11</td>
<td>15.9</td>
</tr>
<tr>
<td>Female</td>
<td>58</td>
<td>84.1</td>
</tr>
<tr>
<td>GPA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good (7-7.99)</td>
<td>25</td>
<td>36.2</td>
</tr>
<tr>
<td>Average good (6-6.99)</td>
<td>34</td>
<td>49.3</td>
</tr>
<tr>
<td>Average (5-5.99)</td>
<td>9</td>
<td>13.0</td>
</tr>
<tr>
<td>Very weak (0-3.49)</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Activity points</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excellent (9-10)</td>
<td>3</td>
<td>4.3</td>
</tr>
<tr>
<td>Very good (8-8.99)</td>
<td>7</td>
<td>10.1</td>
</tr>
<tr>
<td>Good (7-7.99)</td>
<td>47</td>
<td>68.1</td>
</tr>
<tr>
<td>Average (5-5.99)</td>
<td>12</td>
<td>17.4</td>
</tr>
</tbody>
</table>

**Quantitative Findings**

The CLEI instrument was developed by Newton, Ockerby, Cross, and Jolly (2009) and is divided into six subscales (see Table 3).
Table 3

**Six Subscales in Modified Clinical Learning Environment Inventory**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Number of items</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Affordances and Engagement (AAE)</td>
<td>16</td>
<td>3, 4, 9, 14, 15, 21, 22, 23, 26, 27, 33, 34, 36, 38, 39, 41</td>
</tr>
<tr>
<td>2. Student-centeredness (SC)</td>
<td>18</td>
<td>1a/b, 2a/b, 7, 13a/b, 16a/b, 17a/b, 19a/b, 25, 31a/b, 37a/b</td>
</tr>
<tr>
<td>3. Enabling Individual Engagement (EIE)</td>
<td>4</td>
<td>12, 18, 24, 30</td>
</tr>
<tr>
<td>4. Valuing Nursing Work (VNW)</td>
<td>3</td>
<td>8, 10, 20</td>
</tr>
<tr>
<td>5. Fostering Workplace Learning (FWL)</td>
<td>6</td>
<td>28, 29, 32, 35a/b, 40</td>
</tr>
<tr>
<td>6. Lack of Innovation (LOI)</td>
<td>3</td>
<td>5, 6, 11</td>
</tr>
</tbody>
</table>

*Note:* The bold sentences had negative meanings in the questionnaire so when entering the SPSS, it is necessary to reverse the code.

The first research question was whether there were barriers that affected the learning process of HIU nursing students at this CLE. To answer this question, the V-CLEI of Truong (2015), a Vietnamese version of a modified CLEI from Newton et al. (2009) was used. For the purpose of checking whether this tool was suitable for clinical learning environments in HIU as well as Vietnam culture, tests were used to check the suitability and reliability of the questionnaire.

In this survey, overall V-CLEI score could be achieved from 50-200; in fact, its score range was from 123 to 177 with a mean of 145 (SD = 11.02), and a range of 54 (see Table 4). The results showed students' awareness of CLEs was higher than mid-range. Along with that, each subscale had different values that were described.
Table 4

*Descriptive Statistics of Vietnamese Version of Clinical Learning Environment Inventory*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAE</td>
<td>69</td>
<td>26.00</td>
<td>36.00</td>
<td>62.00</td>
<td>47.7971</td>
<td>4.30997</td>
</tr>
<tr>
<td>SC</td>
<td>69</td>
<td>23.00</td>
<td>43.00</td>
<td>66.00</td>
<td>52.9420</td>
<td>5.01434</td>
</tr>
<tr>
<td>EIE</td>
<td>69</td>
<td>8.00</td>
<td>8.00</td>
<td>16.00</td>
<td>10.9710</td>
<td>1.67131</td>
</tr>
<tr>
<td>VNW</td>
<td>69</td>
<td>7.00</td>
<td>4.00</td>
<td>11.00</td>
<td>8.4348</td>
<td>1.32263</td>
</tr>
<tr>
<td>FWL</td>
<td>69</td>
<td>9.00</td>
<td>13.00</td>
<td>22.00</td>
<td>17.3913</td>
<td>2.36530</td>
</tr>
<tr>
<td>LOI</td>
<td>69</td>
<td>7.00</td>
<td>3.00</td>
<td>10.00</td>
<td>7.6087</td>
<td>1.33083</td>
</tr>
<tr>
<td>Overall V-CLEI</td>
<td>69</td>
<td>54.00</td>
<td>123.00</td>
<td>177.00</td>
<td>145.1449</td>
<td>11.02040</td>
</tr>
</tbody>
</table>

*Note:* AAE= Affordances and Engagement; SC= Student-centeredness; EIE= Enabling Individual Engagement; VNW= Valuing Nursing Work; FWL= Fostering Workplace Learning; LOI= Lack of Innovation

**Subscale 1: Affordances and Engagement**

Affordances and Engagement (AAE) is a subscale consisting of 16 items that related to students’ perceptions of engagement with the clinical placement and the environment. Questions in this subscale might reflect the intrinsic motivation of students and the affordances provided in the clinical environment (Newton et al., 2009). In Affordances and Engagement, the total score could range from 16 to 64. In fact, the total points students gave to this subscale ranged from 36-62 points with a mean of 47.8 (see Figure 1), standard deviation of 4.3, and a range of 26. Students gave a high level of positive assessment with items belonging to this factor.
Distance value = (Maximum – Minimum)/n (SPSS support, 2015).

Maximum was the maximum value of the scale, minimum was the minimum value of the scale. \( N \) was the number of selected values of the scale. According to that,

Distance value = (maximum - minimum)/n = (4-1)/4 = 0.75.

Therefore, the distance considered "strongly disagree" would range from 1 to 1.75; "Disagree" would be from 1.76 to 2.5. Next, the rating given at "agree" would be from 2.51 to 3.25, and the highest level, "strongly agree" would be from 3.26 to 4 (*).

The bar chart in Figure 1 depicts information about the mean of each of the 16 questions of Affordances and Engagement. The highest rate of students in this subscale belonged to Item 21 \( (M = 3.45) \): "This clinical placement is a waste of time." Because this item had negative content, when importing into SPSS software the result was reversed. This meant the rate of "Strongly disagree" was very high. Following it, Item 27 was rated at the second highest level \( (M = 3.25) \). This item stated: "This clinical placement is boring." Similar to Item 21, this was also a negative question so the mean of 3.25 was an average of the "Disagree" level.
In contrast, the lowest level was seen in Item 26 ($M = 2.54$): "Students have little opportunity to be involved with the process of handing over to staff in the ward for the next shift." It was followed by Item 23 ($M = 2.71$): "Teaching approaches in this characterized by innovation and variety ward." Although rated at the lowest level, it was still possible to see them rated at the "Agree" level. This meant students were mostly quite satisfied with the issues raised by Affordances and Engagement.

**Subscale 2: Student-Centeredness**

The second subscale related to factors affecting the central role of students on the CLE including external factors such as clinical teachers, instructors, or stakeholders such as nurses or other medical staff at the department (Newton et al., 2009). With a total of 18 questions, this subscale could achieve scores from 18 to 72. The actual score of students for Student-centeredness (SC) was from 43 to 66 with a mean of 52.9, standard deviation of 5.01, and range of 23. This result showed a positive review of the content in the Student-centeredness factor.
Figure 2 provides information about the average value of questions that belonged to the SC subscale. The highest score belonged to Item 1a (M = 3.26): “The clinical teacher considers students’ feelings.” According to the formula (*) above, students rated this question at a "strongly agree" level. In the second highest position was Item 19a (M = 3.25): “The clinical teacher helps the student who is having trouble with the work.” The rating point for this sentence was at a high level of "agree."

![Mean of each item in Student-centeredness subscale.](image)

In contrast, the lowest rating belonged to Item 2b (M = 2.38): "The preceptor talks to rather than listens to students." With negative content, this average score was reversed and represented the "Agree" level. Item 13b (M = 2.57) and Item 19b (M = 2.58) with contents in turn of "The preceptor goes out of his/her way to help students" and "The preceptor helps the student who is having trouble with the work" also showed a pretty
low score in the "agree" level. In addition, for parallel questions a/b, all the contents of b (Nursing staff) were evaluated with a lower score than a (Clinical teacher). This showed negative reviews for clinical staff at the clinical setting.

**Subscale 3: Enabling Individual Engagement**

The Enabling Individual Engagement (EIE) subscale related to student empowerment and control of their work at the CLE (Newton et al., 2009). The EIE had four questions with a possible range of 4 to 16. However, it was evaluated from 8-16 points with a mean of 10.97, standard deviation of 1.67, and range of 8. This result represented a low score in the "Agree" level.

Item 30—"Teaching approaches allow students to proceed at their own pace"—had the highest rating ($M = 2.88$). Meanwhile, the lowest score belonged to Item 12 ($M = 2.57$): "Students are generally allowed to work at their own pace." This was not a high score at the level of "Agree" (see Figure 3).
**Subscale 4: Valuing Nursing Work**

The Valuing Nursing Work subscale focused on students' feelings about nursing jobs and career orientations (Newton et al., 2009). With three questions, it could achieve from 3 to 12 points. In fact, students evaluated this subscale from 4-11 points with a mean of 8.4, standard deviation of 1.32, and a range of 7. This was a low view of valuing nursing work.

Item 2—"Students in this ward pay attention to what others are saying"—rated the highest score ($M = 3.06$; see Figure 4). According to the formula (*), this result represented a high degree of "agree." Conversely, Item 10 had the lowest rating ($M = 2.48$): “Getting a certain amount of work done is important in this ward.”

![Mean of each question](image)

**Figure 4.** Mean of each item in Valuing Nursing Work subscale.
Subscale 5: Fostering Workplace Learning

The content of the fifth subscale related to teaching strategies as well as the assignment division for students and elements of infrastructure that could promote student clinical practice (Newton et al., 2009). With six questions, the Fostering Workplace Learning subscale could score from 6 to 24. In fact, this subscale achieved a score of 13-22 with a mean of 17.4, standard deviation of 2.36, and a range of 9. This result showed a higher level than the mid range (see Figure 5).

The highest score belonged to Items 28 (M =3.04) and 40 (M = 3.03): “Ward assignments are clear so that students know what to do” and “Workload allocations in this ward are carefully planned,” respectively. According to the formula (*), this was a fairly high level of "agree.” In contrast, the lowest score belonged to Item 35b (M =2.68): “The preceptor often thinks of interesting activities for the students.”

![Mean of each question](image)

Figure 5. Mean of each item in Fostering Workplace Learning subscale.

Subscale 6: Lack of Innovation
With three items, this subscale talked about the lack of innovation in CLEs. A CLE lacking creativity and stereotyping would bring boredom to students and not inspire students' interest in the learning process (Newton et al., 2009). The Lack of Innovation subscale could reach from 3-13 points. However, this subscale ranged from 3-10 points, with a mean of 7.6, standard deviation of 1.33, and a range of 7. This was a low score in the "agree" level.

According to Figure 6, the highest score belonged to Item 11 with a mean of 2.68: “New and different ways of teaching students are seldom used in the ward.” This was a question of negative meaning so this item had a low rating at the "disagree" level. In contrast was Item 5: "New ideas are seldom tried out in this ward." This was also a negative meaning sentence so the score had been reversed when entering SPSS; thus, a mean of 2.36 represented an "agree" level.

![Mean of each question](image)

*Figure 6.* Mean of each item in Lack of Innovation subscale.

**Nursing Students’ Perceptions of the Clinical Learning Environment**
To check for correlation between different age groups and survey results on the V-CLEI, some statistical tests were necessary. The test of Homogeneity of Variances, Levene’s Test = 1.643 with a p-value > 0.05, provided the evidence of equal variances assumed. Thus, a one-way analysis of variance (ANOVA) test was conducted to examine students’ perceptions of the CLE by age group. Then, the results of a one-way ANOVA test from SPSS 2.0 was used. In Table 5, ANOVA test \( F = 1.350; p > .05 \). This indicated no statistically significant difference in V-CLEI scores among different age groups (Field, 2013).

Similarly, to check for correlation between different GPA groups and survey results on the V-CLEI, Levene’s Test provided evidence of equal variances assumed (\( F = 0.988 \) with \( p \)-value > .05). Thus, a one-way ANOVA test was conducted to examine students’ perceptions of CLE by GPA group. In Table 5, an ANOVA test was conducted \( (F = 0.169; p > .05) \). This indicated no statistically significant difference in V-CLEI scores among those with differing GPA scores (Field, 2013).

However, when checking the correlation between activity points and participants’ perceptions, some changes in approach were needed. Activity points constituted scores that measured the outdoor and volunteer activities of students at the university. In a test of Homogeneity of Variances, a \( p \)-value of Levene test is lower than .05. Therefore, the Robust Test result was used. In Table 5, the \( p \)-value of the WELTH test was \( F = 0.755, > .05 \). This proved there was no statistically significant difference in V-CLEI scores among different groups of activity points (Field, 2013).

Table 5
Correlation Test Results Regarding Vietnamese Version of Clinical Learning Environment Inventory and Age, Grade Point Average, and Activity Points

<table>
<thead>
<tr>
<th></th>
<th>Levene Test</th>
<th>ANOVA Test</th>
<th>Robust Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Levene</td>
<td>Sig.</td>
<td>F</td>
</tr>
<tr>
<td>Age</td>
<td>1.643</td>
<td>0.188</td>
<td>1.350</td>
</tr>
<tr>
<td>GPA</td>
<td>.988</td>
<td>0.378</td>
<td>0.169</td>
</tr>
<tr>
<td>Activity Point</td>
<td>2.838</td>
<td>0.045</td>
<td></td>
</tr>
</tbody>
</table>

For the gender variable, there were two selected values. Therefore, the independent sample T-test was chosen to check the correlation between the gender group and the V-CLEI assessment. In Table 6, p-value of Levene test (with $F = 0.519$) $> 0.05$. This provided evidence of equal variances assumed. Along with that, p-value (2-tailed) of independent Sample T-test was $> 0.05$. In conclusion, there was no statistically significant difference in V-CLEI scores between other sex groups (Field, 2013).

Table 6

Correlation Test Results Regarding Vietnamese Version of Clinical Learning Environment Inventory and Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>M</th>
<th>Levene's Test</th>
<th>Independent Sample T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>$F$</td>
<td>Sig.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11</td>
<td>2.84</td>
<td>0.519</td>
<td>0.474</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>58</td>
<td>2.82</td>
<td></td>
<td>0.693</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Equal variances assumed)</td>
</tr>
</tbody>
</table>

Reliability
Validity and reliability are two basic factors in measuring measurement tools (Tavakol & Dennick, 2011). A research tool is considered valuable and appreciated when these two factors are strong. Cronbach’s alpha is a method of measuring the reliability of a research tool (Tavakol & Dennick, 2011). The greater the Cronbach’s $\alpha$ index, the higher the reliability of the questionnaire. However, Cronbach’s $\alpha$ must be at least 0.70 to be considered acceptable (Field, 2013).

The CLEI was translated into Vietnamese and tested for its reliability by Truong (2015; see Table 7). In Truong’s study, the V-CLEI of Cronbach’s $\alpha$ was 0.88, which indicated the V-CLEI was highly reliable. However, in the current study, the overall Cronbach’s $\alpha$ for 50 variables of the questionnaire was equal to 0.84. Although this rate was lower than Truong's study, it still achieved high reliability and acceptance when performed on HIU nursing students. However, Cronbach’s $\alpha$ index had different changes for each of the six subscales. The highest Cronbach’s $\alpha$ index was seen in Subscale 1 (Affordances and Engagement—0.798) and Subscale 2 (Student-Centeredness—0.702). These rates were lower than Truong's but they were acceptable. Removing some variables in two subscales did not increase much more the rate of Cronbach's $\alpha$.

Cronbach’s $\alpha$ of Subscale 5 (Fostering Workplace Learning) at 0.62 was lower than Truong's research. Cronbach’s $\alpha$ of Subscales 3 (Enabling Individual Engagement) and 6 (Lack of Innovation) were nearly equal—about 0.48. This was a fairly low and unacceptable number. Removing some of the variables in these subscales could not increase Cronbach’s $\alpha$ to 0.7. The lowest index belonged to Subscale 4 (Valuing Nursing Work) with only 0.299. Although this rate was higher than Truong (0.19), it was too low
and unacceptable. Removing some items did not increase this subscale's Cronbach’s α significantly (see Table 7)
Table 7

Comparison of Reliability

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Cronbach’s α (from current study)</th>
<th>Cronbach’s α (Vietnam version in Truong’s 2015)</th>
<th>Cronbach’s α (English version in Newton et al., 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Affordances and Engagement</td>
<td>.708</td>
<td>.75</td>
<td>.88</td>
</tr>
<tr>
<td>2. Student-centeredness</td>
<td>.702</td>
<td>.74</td>
<td>.88</td>
</tr>
<tr>
<td>3. Enabling Individual Engagement</td>
<td>.483</td>
<td>.60</td>
<td>.65</td>
</tr>
<tr>
<td>4. Valuing Nursing Work</td>
<td>.299</td>
<td>.19</td>
<td>.57</td>
</tr>
<tr>
<td>5. Fostering Workplace Learning</td>
<td>.620</td>
<td>.66</td>
<td>.67</td>
</tr>
<tr>
<td>6. Lack of Innovation</td>
<td>.480</td>
<td>.58</td>
<td>.50</td>
</tr>
<tr>
<td>Overall</td>
<td>.84</td>
<td>.88</td>
<td>Not given</td>
</tr>
</tbody>
</table>

Summary

Chapter IV provided an overview of the findings of the demographic statistics as well as the reliability of the scale. In addition, there were general descriptions of data collected about problems or barriers students assessed in each subscale as well as the overall V-CLEI questionnaire. These results reflected some of the barriers to learning in a nursing student’s awareness of the CLE.
CHAPTER V

DISCUSSION

Introduction

The findings found in Chapter IV provided a general description of the answers to the research questions. Thus, Chapter V presents a discussion of the results reported in the previous chapter. Looking at and discussing the results helped answer the question of whether clinical challenges really existed and hindered the learning of HIU nursing students. By contrast, challenges might become motivations for learning and result in a smoother performance of day-to-day operations. The demographic characteristics of the sample and the quantitative results supported that students perceived barriers to learning in the CLE. Along with that, the limitations of this study as well as suggestions/recommendations are provided to improve the CLE for nursing students and improve the quality of nursing education in HIU, in particular, and in Vietnam, in general, are discussed.

Demographic Findings

Statistical analyses demonstrated demographic factors did not affect the survey results of third year nursing students at HIU. Regarding the age factor, this could be explained as most of these students were in the young group—from 21 to 23 primarily. Therefore, their awareness of CLE was not affected by differences in age.
The proportion of male nurses accounted for a small part of the nursing staff, which led to imbalances in the ratio of men and women in this profession (Brady & Sherrod, 2003). In fact, the number of third-year male nursing students at HIU was only 11 (15.9%) while the number of females was 59 (84.1%). A result was expected with the difference between males and females. However, the actual results showed no difference between different gender groups in this study. This might have been because the research sample was not large enough.

Grade point average is a factor that represents the capacity and ability of students at a university. Research by Al-Hilawani and Sartawi (1997) showed students with high GPAs had significantly better skills and study habits than students with low GPAs. Activity point is a score that measures the outdoor and volunteer activities of students at a university. Outdoor activities could affect students' attitudes (Cavus & Uzunboylu, 2009). However, in this study, there was no difference between recorded GPA and activity point groups. This might have been because the sample of the study was not large enough. However, Truong's (2015) research did not explore whether relationships among age, gender, GPA, and activity points groups had an impact on the perceptions of nursing students in the CLE. Therefore, there was no comparison with this study in Vietnam.

**Quantitative Findings**

Overall, the V-CLEI provided a positive result in assessing the CLE from nursing students with a mean of 145 (ranging from 123 to 177). However, with different subscales, the level of assessment varied according to the questions provided.
Subscale 1: Affordances and Engagement

Items in this subscale related to factors affecting students’ intrinsic motivation and the affordances offered in CLE including students' perceptions as well as their participation in clinical settings (Newton et al., 2009). A higher rating at the mean level ($M = 47.8$) was given by the participants. This showed they had a positive assessment of these subscale items on the CLE. Motivation plays an important role in a student's learning progress. Intrinsic motivation develops in students who desire to acquire new knowledge and understanding (Valerio, 2012). Motivation, where the goal-oriented process is motivated and maintained including internal and external forms (Schunk, Meece, & Pintrich, 2002), could help students become more active in participation in clinical learning activities. In this survey, HIU third-year nursing student absolutely did not report wasted time in the CLE, specifically at Cho Ray Hospital. They also denied these clinical practices were boring. Instead, this showed they appreciated the CLE created by this hospital.

Cho Ray Hospital is a central general hospital serving the southern area and is located in Ho Chi Minh City. In 2010, the hospital was ranked a special hospital by Ministry of Health with a total of more than 66 clinical and many other specialties (Cho Ray Hospital, 2015). Participants of this study were nursing students who participated in Medical and Surgical wards in Cho Ray Hospital, which focused on typical diseases with diverse patient care techniques. This created excitement and positive reviews when the students of HIU participated in this clinical learning environment.

In addition, one of the decisive factors in the learning process of students at the CLE was goal-setting. Building goals is also a way to help students toward positive
thoughts about their ability (Szente, 2007). Students need to know what they will do when they practice in this clinical setting. In this subscale, learning goal factors were surveyed by Items 4 and 41. An average rating of “Agree” level showed HIU nursing students had already grasped the tasks they needed to perform in the CLE. Students knew it through meetings with clinical teachers before taking a practical course at the hospital. This helped students understand the content and the amount of work that needed to be done to be able to arrange and balance it. Students also set different goals for themselves and completed them along with the specific goals the teachers established. Allowing students to choose an achievable experience in setting goals is also an important component of motivation (Sternberg & Williams, 2002).

However, a fairly low rating was reported about the need for participation in the shift handover of medical staff in the wards. Shift handovers play an important role in the continuity of patient care in the nursing context (Kerr, 2002). Therefore, shift handovers serve as a bridge to help health workers, especially nurses, to transmit information of existing patients in this ward. Summary reports about the patient's status should be provided so healthcare workers in the next shift can understand and implement the treatment and care demands systematically. Students gain knowledge and increased confidence significantly when participating in the trial handover (Thaeter et al., 2018). However, HIU nursing students reported they did not have many opportunities to participate in handover between shifts where they could absorb clinical knowledge directly from medical staff in the department. This issue might have resulted from the lack of support from the Chief Nurse or Dean of the department for attendance at shift
handover. This might also have been one of the reasons that prevented students from accessing clinical knowledge in the CLE.

**Subscale 2: Student-Centeredness**

Student-centered learning is a method that has been used for a long time in modern education. Student-centered learning aims to develop learners' autonomy and independence by putting learning responsibilities into the hands of students. These students become the central factor interacting with other factors in the learning environment (Jones, 2007). This subscale of the V-CLE included items that explored aspects that impacted the student's central role in the CLE including external factors that interacted with each other (Newton et al., 2009). Some important factors affecting students' learning come from the quality of training by clinical teachers as well as support from nurses (Rahmani et al., 2011). Similarly, Harrison-White and Owens’ study (2018) showed students' learning opportunities could be formed by their position in the CLE. If learners were placed in a central position, they were impacted and supported by stakeholders. Conversely, if their position was lowered, they were not given as many opportunities to practice and access clinical knowledge.

Actually, the level of evaluation of HIU nursing students was higher for clinical teachers than for nursing staff in all items with parallel elements a/b. The importance of nursing teachers in clinical settings was emphasized by Silva et al. (2012). The support from clinical teachers has been appreciated by nursing students. The help of teachers in practical learning has been considered a motivation in CLEs. Silva et al. also argued that help, guidance, monitoring, and evaluation coming from clinical teachers as well as medical staff in the ward were considered part of students’ expectations for a positive
CLE (Silva et al., 2012). However, the results reflected a negative assessment for medical and nursing staff in clinical departments. A highly valued learning environment is one without discrimination and on in which staff maintain respect for each other. A CLE should also have support from stakeholders such as teachers, health workers, and other learners (Hinde McLeod & Reynolds, 2007). However, it seemed the HIU nursing students did not feel satisfied about the stakeholders in the CLE. Previous studies reported a similar result. Suresh, Matthews, and Coyne (2013) argued effective interpersonal interaction was an important trait that brought safety and success to nursing students. Lewallen and DeBrew (2012) also suggested the role of clinical nurses in the ward was very important as one of the sources of stress for students comes from ineffective interaction between students and registered nurses.

Harrison-White and Owens (2018) considered the relationship between nursing students and their mentors as an important factor in the decision of how they treated students in the CLE. Nursing staff in this ward acted as clinical mentors in the CLE. When this relationship became stressful, it was one of the factors hindering the clinical learning process. These authors also mentioned that some mentors abused their rights and power to exploit students, which had negative effects on students' assessment of the CLE (Harrison-White & Owens, 2018).

Furthermore, Truong (2015) also provided a clear discussion about the influence of student learning activities on stakeholders including nursing staff. Structured questions were added to her survey to gather student reports in addition to the V-CLEI. In particular, most nursing students gave quite negative comments to the medical and nursing staff. Truong explained some of the reasons came from registered nurses’
workloads being quite large so they did not spend a lot of time and attention on students' learning processes as a priority. In addition, a number of registered nurses who had two-year course qualifications might feel threatened and uncomfortable to guide students participating in nursing programs with higher levels. In this study, these could also be used to explain that nursing staff who participated in clinical courses at HIU, one of the largest hospitals in southern Vietnam, experienced a very high workload. Therefore, the high workload prohibited staff from spending much time with nursing students. In addition, nursing students at HIU were attending a four-year nursing program with Bachelor of Nursing qualifications, which were higher than the level of most nurses registered at hospitals who had a secondary degree (two-year course) or a College degree (three-year course) qualification. This might have been one of the biggest barriers students had to face in the CLE.

**Subscale 3: Enabling Individual Engagement**

The Enabling Individual Engagement subscale items focused on student empowerment at the CLE (Newton et al., 2009). In this subscale, personalization and job control followed at the student’s own pace was surveyed with these items. Allowing students to choose the topic of study and skill as well as providing them with a sense of ownership of their work is a way to give students control (Scott, 2010). Clinical learning objectives are given to empower students developing clinical skills and socialization in nursing (Baraz, Memarian, & Vanaki, 2015). However, the rating was not high for items in this subscale. The results showed HIU students had not yet fully demonstrated their control with their practice process in the CLE. Participants in this study showed they had not really been able to do exactly what they wanted. The overloaded work environment
and the large numbers of patient made the clinical teachers and registered nurses at the ward have to work at a fast pace; sometimes, nursing students considered "novice" could not keep up with the pace. In addition, and as mentioned above, Vietnam with its eastern culture always appreciates teachers so students are rarely empowered (Pham & Renshaw, 2013). Moreover, the results of the study carried out by Hettiarachchi and Chandana (2012) recorded a negative aspect of academic self-awareness. Restrictions on clinical knowledge could deprive the autonomy of students during practice, reducing the opportunity to access the CLE and becoming a barrier for nursing students in this complex environment.

Subscale 4: Valuing Nursing Work

This subscale involved students' awareness of nursing work and career orientation (Newton et al., 2009). The rating was not high for items in this subscale, providing an unsatisfactory opinion about nursing career orientation. This is understandable when in Vietnam, nurses are considered to be the assistants for the doctor and depend on the doctor. These obsolete thoughts still exist in some people. Furthermore, nursing in Vietnam is considered hard work and has no respect.

In addition, most students think nursing is very difficult and hard (Tseng, Wang, & Weng, 2013). As a result, students do not appreciate what they do when they practice in a CLE. Students discover the nature of the job and the responsibility of a nurse through clinical experience. Therefore, awareness of the importance of a nursing career by HIU nursing students was not yet appreciated in this study. This could really become a psychological barrier for nursing students in clinical practice environments. Negative perceptions of nursing students about the nursing occupation might cause them to give up
this career. About 25% of nursing students have withdrawn from nursing programs before being eligible to becoming nurses in the United Kingdom (McLaughlin, Moutray, & Moore, 2010).

**Subscale 5: Fostering Workplace Learning**

This subscale’s content explored workplace factors that impacted nursing students in the CLE (Newton et al., 2009). The results showed an uneven assessment of aspects of the workplace. The overall result was students’ perceptions were quite positive about items in this subscale; this result matched Truong's (2015) V-CLEI. However, Truong’s structured questions did not produce the same results. Open questions about facilities as well as practical tools obtained negative answers from participants in Truong's research. Student feedback demonstrated the CLE where they practiced provided a poor infrastructure and few opportunities to practice care. This indicated the CLE in Truong’s study did not provide students with optimal conditions for clinical practice. In their study, Mohammadi et al. (2004) indicated one of the negative influences on CLE came from the lack of teaching tools as well as infrastructure. This was also a weakness of the V-CLEI as it did not fully explore aspects related to facilities and learning equipment in a CLE.

The lowest evaluation of HIU nursing students in this subscale belonged to the interest and motivation in work created by nurses in the clinical environment. Roth and Désautels (2004) suggested an important component to success in CLE is a community called the “sociology” of learning. Similar results were noted by Hettiarachchi and Chandana (2012) who found a quite negative result for an awareness of the atmosphere in a CLE. They also believed changes in the clinical environment were necessary to improve a CLE that meets the learning process of nursing students. A CLE is highly
effective when internal factors in that environment interact with each other and create excitement for learners. Clearly, the nursing staff in the ward had not created an interest in working to motivate students' curiosity in the CLE.

**Subscale 6: Lack of Innovation**

The Lack of Innovation subscale adequately described the lack of creativity and changes in a CLE. A dynamic and diverse learning environment can provide students with many opportunities to enrich and renew their learning (McKenna & Stockhausen, 2013). However, this factor was not highly rated by the participants. Students agreed creativity in the work at this clinical setting was very rare along with having to work in an old traditional way that made nursing work lack flexibility and creativity. This result also complemented discussions from Truong's (2015) research. Truong said negative reviews coming from participants in this subscale have shown that innovation in teaching methods as well as care ideas are not common in a CLE.

**Reliability of the Findings**

The overall Cronbach’s alpha for the V-CLEI was 0.84, which was good and acceptable for an instrument. The V-CLEI questionnaire was seen as suitable for nursing students at HIU. This was also seen in Truong's (2015) previous research in Khanh Hoa province where the Cronbach’s alpha was 0.88. However, some subscales were not high on the reliability index. Truong also gave a number of reasons for her result including factors related to translation and different cultures that could not represent participants in research (Truong, 2015).

In addition, Truong (2015) also mentioned "saving face”—a popular cultural attribute not only in Vietnam but also Asian countries. Most people do not want to reveal
their weaknesses to others. Instead of telling the truth, they do not respond honestly to the questions so the research results would have been more positive (Hofstede, Hofstede, & Minkov, 2010).

Vietnamese students have long held the notion that teachers are central. Teachers say, students listen and follow; thus, students have little power to take an initiative in class (Nguyen, Terlouw, & Pilot, 2006). Therefore, this might have caused participants to become passive and uncomfortable in contributing ideas and suggestions in this survey.

In addition, the V-CLEI was also a long questionnaire with 50 items and some sentences with similar content. Along with the number of sentences with a lot of negative meanings, students might have felt confused and easily misread when participating in the survey.

**Application of Theoretical Framework**

This study partly supported the statements of Benner's (1984) theory, which was mentioned in previous chapters. This study clearly showed nursing students at HIU in particular and Vietnam in general would be considered to be novices in a CLE, which is regarded as a complex learning environment with diverse and continuously changing contexts. All elements in this CLE were strange to them because they were beginners. Thus, they needed to get used to everything. Therefore, the mutual interaction between relevant factors in the clinical setting might have had positive or negative effects on nursing students. This meant they needed to be guided in detail with the help from clinical experts or nursing educators who had a deep knowledge and experience. This seemed to be a repetition of a cycle: when nursing students started having contact with a challenging practice environment, they needed to have time to improve their knowledge
and skills. Therefore, in the future, after having experience and becoming more professional in their nursing work, they can become experts and continue to contribute to the nursing field.

**Limitations**

Several limitations were discovered after the study was conducted. First, the number of participants might not have been sufficient to achieve high validity and reliability \((n = 69)\). This meant the results were insufficient to represent the target population in assessing awareness of HIU nursing students about a CLE. At the same time, this restriction also led to some deviations in the correlation tests between demographic variables and the evaluation about this CLE. Secondly, the research’s sample was HIU's third year nursing students who did not have much experience in CLE practice, which could have increased negative emotions when first contacting a diverse CLE as Cho Ray Hospital. Thirdly, this research was only done at HIU so it could not represent the context of Vietnamese nursing education. Furthermore, due to a difference in culture, the V-CLEI was not really suitable for the context in Vietnam as it did not fully show the attributes of CLEI in Vietnam. If possible, additional open questions or structured interviews might be needed to obtain more feedback from participants. Finally, this questionnaire was quite long as well as its content contained many negative item wordings, leading participants to feel confused and bored when they answered.

**Recommendations**

Some recommendations are provided to improve the quality of nursing education in Vietnam in general and the nursing school at HIU in particular.
**Recommendations for Future Studies**

The clinical learning environment is a multidimensional entity with a complex social context (Chan, 2001). The V-CLEI was just one of many tools that could examine aspects related to this topic. However, due to cultural differences, V-CLEI should be revised and shortened to suit the clinical education context in Vietnam. Also, further research should be carried out on a larger scale including third and fourth-year students from HIU. Moreover, research needs to be extended to survey nursing students at other universities in Ho Chi Minh City.

**Recommendations for Nursing Education**

Report results showed the CLE in the nursing Vietnam context was not an effective CLE for HIU nursing students. The difference between nursing school and clinical settings has created a gap. To minimize this difference, it was necessary to strengthen the cooperation and exchange between HIU's nursing faculty and hospitals and clinics where HIU chose to become a practical place for nursing students.

Reports of students' difficulties at a CLE should also be transmitted to clinical units since they might provide appropriate remedies. Fortunately, in 2018, the nursing faculty established a nursing school/hospital cooperation club (HIU, 2018). The Nursing Faculty of HIU was considered an official organization that aimed to increase cooperation between nursing school and hospitals/clinics in Ho Chi Minh City about nursing education and practice (HIU, 2018). Along with the establishment of this club, the Dean of Nursing Faculty decided to hold an annual nursing school-hospital conference. This launched a new phase of cooperation to help nursing research and education become more effective. At the same time, this was also an opportunity for
those who are working in the nursing field—lecturers and students of HIU Nursing Faculty—to have the chance to meet, exchange, share, and update clinical knowledge. This conference helped make treatment, teaching, and learning more effective. This was also an opportunity for nursing teachers and students to share the challenges and difficulties of a CLE.

Furthermore, leaders, nursing educators, and mentors need to discuss and come up with specific learning objectives and strategies and deliver appropriate learning programs to students. At the same time, there should be orientation courses to help students understand this career. Luckily, HIU’s learning program in recent years has included a Career Orientation course. In this course, students could visit clinical settings such as hospitals/clinics in Ho Chi Minh City and see and experience the daily work of a nurse. This would help students feel better when they practice in a CLE.

**Recommendations for Nursing Students**

Self-confidence in learning, positive attitudes, and the support of faculty and colleagues have significantly predicted more success in the university (Martin, Swartz-Kulstad, & Madson, 1999). Therefore, nursing students need to be more proactive in accessing knowledge from diverse and complex learning environments such as a CLE. Cultivating theoretical knowledge, communication, and teamwork skills become more important than ever to achieve desired outcomes. Finally, sharing difficulties and challenges with clinical teachers as well as nursing educators is a great way to provide appropriate solutions to change.
Conclusion

This study explored the awareness of nursing students about a CLE. Some descriptions were considered as challenges for nursing students in clinical settings that included impact factors from stakeholders and most health workers in a CLE. In addition, nursing students were not really aware their role in clinical practice sessions, which could have also become one of the barriers in this learning environment. In addition, student-centered learning has not yet been applied widely as a potential teaching method within Eastern cultures so students are less empowered and dominated by the work they do. Especially in a clinical environment, the objective is serving people; nursing students, known as beginners, must practice under the supervision and instruction of a clinical teacher or nursing staff.

A subscale of the V-CLEI indicated a lack of awareness of nursing career values. The lack of innovation in teaching methods as well as in patient care was also a barrier in a CLE, which reduced students' interest in clinical learning.

However, high scores on the V-CLEI for clinical instructors provided an insight into the important role of clinical teachers in the CLE. This could be seen as a motivation to push the clinical learning process for nursing students in Vietnam. In this context where the teacher is the center, the students are quite passive; this would be a bridge to shorten the gap between nursing school and a CLE. Support from clinical teachers as well as colleagues is a positive factor promoting the clinical learning process.

In addition, one of the factors considered as a motivating force for nursing students is a rich and diverse clinical setting. These CLEs could create many opportunities for nursing students to improve knowledge and have exciting clinical
experiences. This would help them not to feel bored and waste time in this learning environment.

This research was the foundation for conducting further research on nursing education in Vietnam as well as in the world.
REFERENCES


APPENDIX A

MODIFIED CLINICAL LEARNING ENVIRONMENT INVENTORY QUESTIONNAIRE
**CLINICAL LEARNING ENVIRONMENT INVENTORY (CLEI)**

**Directions**

The purpose of this questionnaire is to find out your opinions about this clinical placement. This form of the questionnaire assesses your opinion about what this clinical placement is **ACTUALLY** like. Indicate your opinion about each statement that describes what this clinical placement is **ACTUALLY** like, by shading the appropriate circle using the rating scale provided.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a.</td>
<td>The clinical teacher considers students’ feelings.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>1b.</td>
<td>The preceptor considers students’ feelings.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2a.</td>
<td>The clinical teacher talks rather than listens to the students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2b.</td>
<td>The preceptor talks rather than listens to the students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3.</td>
<td>Students look forward to coming to clinical placement.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4.</td>
<td>Students know exactly what has to be done in the ward.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5.</td>
<td>New ideas are seldom tried out in this ward.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6.</td>
<td>All staff in the ward are expected to do the same work in the same way.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7.</td>
<td>The clinical teacher talks individually with students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8.</td>
<td>Students put effort into what they do in the ward.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9.</td>
<td>Students are dissatisfied with what is done in the ward.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10.</td>
<td>Getting a certain amount of work done is important in this ward.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>11.</td>
<td>New and different ways of teaching to the students are seldom used in the ward.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>12.</td>
<td>Students are generally allowed to work at their own pace.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>13a.</td>
<td>The clinical teacher goes out of his/her way to help students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>13b.</td>
<td>The preceptor goes out of his/her way to help students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14.</td>
<td>Students “clock watch” in this ward (can’t wait till the end of the shift).</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15.</td>
<td>After the shift, the students have a sense of satisfaction.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16a.</td>
<td>The clinical teacher often gets sidetracked instead of sticking to the point.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16b.</td>
<td>The preceptor often gets sidetracked instead of sticking to the point.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>17a.</td>
<td>The clinical teacher thinks up innovative activities for students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>17b.</td>
<td>The preceptor thinks up innovative activities for students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>18.</td>
<td>Students have a say in how the shift is spent.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

---

This form has been adapted with permission from the original CLEI (Actual Form) form developed by Dominic Chan (2004).
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>19a.</td>
<td>The clinical teacher helps the student who is having trouble with the work.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>19b.</td>
<td>The preceptor helps the student who is having trouble with the work.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>20.</td>
<td>Students in this ward pay attention to what others are saying.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>21.</td>
<td>This clinical placement is a waste of time.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>22.</td>
<td>This is a disorganised clinical placement.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>23.</td>
<td>Teaching approaches in this ward are characterised by innovation and variety.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>24.</td>
<td>Students are allowed to negotiate their work load in the ward.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>25.</td>
<td>The clinical teacher seldom goes around to the ward to talk to students.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>26.</td>
<td>Students have little opportunity to involve with the process of handing over to staff in the ward for the next shift.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>27.</td>
<td>This clinical placement is boring.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>28.</td>
<td>Ward assignments are clear so that students know what to do.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>29.</td>
<td>The same ward staff member works with the students for most of this placement.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>30.</td>
<td>Teaching approaches allow students to proceed at their own pace.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>31a.</td>
<td>The clinical teacher is not interested in students’ problems.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>31b.</td>
<td>The preceptor is not interested in students’ problems.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>32.</td>
<td>There are opportunities for students to express opinions in this ward.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>33.</td>
<td>Students enjoy coming to this ward.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>34.</td>
<td>Ward staff are often punctual.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>35a.</td>
<td>The clinical teacher often thinks of interesting activities for the students.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>35b.</td>
<td>The preceptor often thinks of interesting activities for the students.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>36.</td>
<td>There is little opportunity for a student to pursue his/her particular interest in this ward.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>37a.</td>
<td>The clinical teacher is unfriendly and inconsiderate towards students.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>37b.</td>
<td>The preceptor is unfriendly and inconsiderate towards students.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>38.</td>
<td>The clinical teacher dominates debriefing sessions.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>39.</td>
<td>This clinical placement is interesting</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>40.</td>
<td>Workload allocation in this ward is carefully planned.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>41.</td>
<td>Students seem to do the same type of tasks in every shift.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>42a.</td>
<td>It is the clinical teacher who decides the students’ activities in the ward.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>42b.</td>
<td>It is the preceptor who decides the students’ activities in the ward.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Thank you for your participation

This form has been adapted with permission from the original CLEI (Actual Form) form developed by Dominic Chan (2004).
APPENDIX B

PERMISSION TO USE CLINICAL LEARNING ENVIRONMENT INVENTORY QUESTIONNAIRE
Author’s Permission of Using modified CLEI questionnaire

Re: Author's Permission of Using CLEI Questionnaire

Jennifer Newton <jenny.newton@monash.edu>
T6 14/12/2018 6:44 AM
Tió:Tran Thi ,Huyen

Dear Huyen

Thank you for your email requesting permission to use the modified CLEI as part of your Master's in Nursing course.

I give permission for you to use it solely for the purposes as stated in your email, and request that you acknowledge me in any publications arising and in your thesis. Attached are the necessary files, please note you will need to change the introduction to the survey to suit your research.

Go well with your research, it should be interesting having just read the article you sent me on the V-CLEI (modified).

Kind regards
Jenny

JENNIFER M. NEWTON
Adjunct Associate Professor

Nursing & Midwifery
Monash University

Associate Clinical Professor,
School of Nursing,
McMaster University, Canada

Chair - Australian College of Nursing, Victoria Network
Chairperson - Australian College of Nursing, Melbourne Region
Editor - Collegian: The Australian Journal of Nursing Practice, Scholarship & Research
Editorial Board - Reflective Practice International and Multidisciplinary Perspectives
Professional Practice, Education and Learning (ProPEL):Associate (An International Network for Research at the University of Stirling)

E: jenny.newton@monash.edu
APPENDIX C

VIETNAMESE VERSION OF CLINICAL LEARNING ENVIRONMENT INVENTORY
V-CLEI (Final translated version of the modified CLEI)

ĐÁNH GIÁ MÔI TRƯỜNG THỰC HÀNH LÂM SÀNG (Truong, 2015)

Hướng dẫn

Mục đích của bốn câu hỏi này nhằm hiểu quan điểm của bạn về môi trường thực tập tại một khoa làm sàng mà bạn vừa mới thực tập gần đây nhất. Các câu trong bảng câu hỏi dưới đây nhằm khảo sát ý kiến của bạn về chất lượng môi trường học tại khoa làm sàng này THỰC SỰ là như thế nào. Bạn hãy nêu ý kiến đánh giá của mình bằng cách tô đậm ở thích hợp theo thang điểm có sẵn.

<table>
<thead>
<tr>
<th>Câu hỏi</th>
<th>Rất không đồng ý</th>
<th>Không đồng ý</th>
<th>Đồng ý</th>
<th>Rất đồng ý</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. Giáo viên làm sàng quan tâm đến những cảm nhận của sinh viên.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1b. Điều dưỡng của khoa quan tâm đến những cảm nhận của sinh viên.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2a. Giáo viên làm sàng ít lắng nghe sinh viên.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2b. Điều dưỡng của khoa ít lắng nghe sinh viên.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sinh viên mong được được đến thực tập tại khoa làm sàng này.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sinh viên biết chính xác những nhiệm vụ họ cần phải làm ở khoa này.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Những ý tưởng chăm sóc mọi hiểm khi được thử nghiệm ở khoa này.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Tất cả nhân viên ở khoa này đều được yêu cầu thực hiện công việc một cách nghiêm túc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Giáo viên làm sàng có sự trao đổi và góp ý riêng với các sinh viên.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Sinh viên nỗ lực thực hiện những nhiệm vụ được giao tại khoa.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. Điều quan trọng ở khoa này là phải hoàn thành được một khối lượng công việc nhất định.

11. Những phương pháp giảng dạy mới và đặc biệt hiện khi được sử dụng ở khoa này.

12. Sinh viên thường được phép làm việc theo tốc độ của họ.

13a. Giáo viên làm sàng rối lực rất nhiều để giúp đỡ sinh viên.

13b. Điều dưỡng của khoa rối lực rất nhiều để giúp đỡ sinh viên.

14. Khi thực tập ở khoa này, sinh viên mong nhanh hết giờ (không thể chờ đến hết buổi thực tập/ca trực).

15. Sinh viên thấy hài lòng sau mỗi buổi thực tập/ca trực.

16a. Trong quá trình hướng dẫn/dạy làm sàng, giáo viên thường di lắc để thay vị bám sát nội dung.

16b. Trong quá trình hướng dẫn/dạy làm sàng, điều dưỡng của khoa thường di lắc để thay vị bám sát nội dung.

17a. Giáo viên làm sàng đã đưa ra những hoạt động dạy/học có tính đổi mới cho sinh viên.

17b. Điều dưỡng của khoa đã đưa ra những hoạt động dạy/học có tính đổi mới cho sinh viên.

18. Sinh viên có quyền để xuất các buổi thực tập/ca trực nên điền ra như thể nào?

19a. Sinh viên nhận được sự giúp đỡ từ giáo viên làm sàng khi gặp khó khăn trong việc thực tập.
19b. Sinh viên nhận được sự giúp đỡ từ điều dưỡng của khoa khi gặp khó khăn trong việc thực tập.

20. Trong quá trình thực tập tại khoa này, sinh viên chú ý đến những góp ý của những người khác (vd: giáo viên, bác sĩ, nhân viên, bệnh nhân, người nhà hoặc sinh viên khác...).


22. Công tác tổ chức thực tập tại khoa này là chưa hợp lý.

23. Phương pháp giảng dạy tại khoa này được đặc trưng bởi sự đối mỏi và sự đa dạng.

24. Sinh viên được phép tham gia với giáo viên làm sàng và điều dưỡng của khoa về khối lượng công việc sinh viên phải làm tại khoa.


27. Việc thực tập tại khoa làm sáng này thật nhảm chán.

28. Khi đi thực tập tại khoa này, sinh viên được giao nhiệm vụ rõ ràng nên sinh viên biết rõ những việc mình cần phải làm.

29. Sinh viên làm việc với cùng một nhân viên điều dưỡng trong hầu hết thời gian thực tập tại khoa này.
30. Phương pháp dạy làm sàng tại khoa này cho phép sinh viên tiến bộ với chính tốc độ của họ.

31a. Giáo viên làm sàng không quan tâm đến hoàn cảnh cá nhân của sinh viên.

31b. Điều dưỡng của khoa không quan tâm đến hoàn cảnh cá nhân của sinh viên.

32. Trong quá trình thực tập tại khoa, sinh viên có cơ hội để bày tỏ ý kiến/qua điểm của mình.

33. Sinh viên thích được thực tập ở khoa này.

34. Nhân viên ở khoa này thường đúng giờ.

35a. Giáo viên làm sàng thường đưa ra những hoạt động dạy/học thụ vụ cho sinh viên.

35b. Điều dưỡng của khoa thường đưa ra những hoạt động dạy/học thụ vụ cho sinh viên.

36. Sinh viên ít có cơ hội để theo đuổi những vấn đề làm sàng mà họ đặc biệt quan tâm khi thực tập tại khoa này.

37a. Giáo viên làm sàng không thân thiện và không quan tâm đến sinh viên.

37b. Điều dưỡng của khoa không thân thiện và không quan tâm đến sinh viên.

38. Giáo viên làm sàng nói là chủ yếu trong các buổi giao ban hoặc buổi giảng làm sàng (sinh viên ít có cơ hội để đưa ra ý kiến hay hỏi những vấn đề mà sinh viên chưa rõ).

39. Việc thực tập làm sàng tại khoa này rất thú vị.
40. Sự phân công khối lượng công việc (cho cả nhân viên và sinh viên) ở khoa này được lên kế hoạch rất cần thận.

41. Sinh viên được như chỉ làm những nhiệm vụ giống nhau trong tất cả các buổi thực tập/ca trực.
APPENDIX D

PERMISSION TO USE VIETNAMESE VERSION OF CLINICAL LEARNING ENVIRONMENT INVENTORY
Author’s Permission of Using V- CLEI questionnaire

Re: Author’s Permission of Using V- CLEI questionnaire

HUE TRUONG <huekhmc@gmail.com>
T3 11/12/2018 9:34 PM
Tới: Tran Thi, Huyen

Dear Ms Tran,

I am happy for you to use the V-CLEI as a research instrument in your study.

Please be noted that you have my permission to use the V-CLEI questionnaire not the CLEI.

Kind regards,

Hue Truong
APPENDIX E

PERMISSION FROM NURSING FACULTY AT HONG BANG INTERNATIONAL UNIVERSITY TO CONDUCT STUDY
Date: Mar 25, 2019
Mrs. Tran Thi Thuan
Dean of Nursing Faculty, Hong Bang International University
Address: Hong Bang International University, Vietnam
120 Hoa Binh street, Hoa Thanh Ward, Tan Phu District, Ho Chi Minh city, Vietnam

RE: Permission to Conduct Research Study

Dear Mrs. Tran Thi Thuan, Dean of Nursing Faculty, Hong Bang International University (HIU)

I am a lecturer assistant in Nursing Faculty of HIU. Currently, I am conducting a thesis to complete the Master of Science Advanced Nursing of University of Northern Colorado (UNC), The USA.

My thesis is to survey the problems/challenges that nursing students of HIU report that they face in the clinical environment. This study’s sample is all third-year nursing students in Bachelor of Nursing Program.

To do this thesis, I need to get consent from Dean of Nursing Faculty of HIU, where I perform research. So, I am writing this letter to request permission from you to conduct a research study at Nursing Faculty, HIU.

Your approval to conduct this study will be greatly appreciated. If you have any question or confuse, please contact me at my email address: tran9017@bears.unco.edu

If you agree, kindly sign below and return the signed form.

Sincerely,

Tran Thi Huey

Approved by Dean of Nursing Faculty:

[Signature]

Full name and title here

Date: Mar 25, 2019

[Signature]

Date:
APPENDIX F

CONSENT FORM FOR HUMAN PARTICIPANTS
IN RESEARCH: ENGLISH AND VIETNAMESE
VERSIONS
CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH

UNIVERSITY OF NORTHERN COLORADO
HONG BANG INTERNATIONAL UNIVERSITY

Project Title: Challenges for Nursing Students in the Clinical Learning Environment
Researcher: Tran Thi Huyen, BSN, Hong Bang International University
E-mail: tran9017@bears.unco.edu

Purpose and Description:
You are invited to participate in a research study conducted by Tran Thi Huyen. The purpose of this research is to gather information on the problems/challenges that nursing students of HIU report that they face in the clinical environment.
This research is conducted with the approval of the Nursing Faculty, Hong Bang International University, Ho Chi Minh city, Vietnam.
Your participation will involve answering questions in the survey to give your opinion about clinical practice in the clinical setting. Estimated time to complete the survey is about 30 minutes.

Risks and discomforts

There are no known risks associated with this research. The survey does not include the names of participants. The results of this study will be kept confidential and will not affect participant’s academic grades in Hong Bang International University.

Potential benefits

There are no known economic benefits to you that would result from your participation in this research.
The quality of nursing education at Hong Bang International University may benefit from your opinions.

Protection of confidentiality

Protective of confidentiality for the subjects: Surveys will use coding information to identify the participants; names will not be used. Identifying information about the participants will not be used in any publication of the results; results will be reported as group data only.
Voluntary participation

Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you. If you have any questions about your selection or treatment as a research participant, please contact the Office of Research, Kepner Hall, University of Northern Colorado, Greeley, Colorado, 80639, 970-351-1910.

Contact information
If you have any questions or concerns about this study or if any problems arise, please contact
Researcher: Ms Tran Thi Huyen at email address: tran9017@bears.unco.edu
Advisor: Dr Jeanette, McNeill at email address: Jeanette.McNeill@unco.edu

Subject’s Signature                      Date

Researcher’s Signature                  Date
MÃU ĐỒNG Ý CHO NGƯỜI THAM GIA TRONG NGHIÊN CỨU TRƯỞNG ĐẠI HỌC NORTHERN COLORADO TRƯỞNG ĐẠI HỌC QUỐC TẾ HỒNG BÀNG

Tên đề tài: Những thắc mắc mà sinh viên Điều dưỡng gặp phải tại môi trường học tập làm sàng Nhà nghiên cứu: Trần Thị Huyền, Đại học Quốc tế Hồng Bàng
Số điện thoại: E-mail: tran9017@bears.unco.edu

Mục đích và mô tả:
Mới các bạn tham gia vào một nghiên cứu được thực hiện bởi Trần Thị Huyền. Mục đích của nghiên cứu này là thu thập thông tin về các vấn đề / thắc mắc mà sinh viên điều dưỡng HIU gặp phải trong môi trường học tập làm sàng.
Nghiên cứu này được thực hiện với sự chấp thuận của Khoa Điều dưỡng, Đại học Quốc tế Hồng Bàng, thành phố Hồ Chí Minh, Việt Nam
Sự tham gia của bạn sẽ liên quan đến việc trả lời các câu hỏi trong khảo sát để đưa ra ý kiến của bạn về thực hành điều dưỡng trong môi trường làm sàng. Thời gian dự kiến để hoàn thành khảo sát là khoảng 30 phút.

Sự rủi ro và khó chịu

Không có rủi ro được biết đến liên quan đến nghiên cứu này. Cuộc khảo sát không yêu cầu nêu tên của người tham gia. Kết quả của nghiên cứu này sẽ được giữ bí mật và sẽ không ảnh hưởng đến điểm số học tập của người tham gia tại Đại học Quốc tế Hồng Bàng

Lợi ích

Không có lợi ích kinh tế nào đối với những sinh viên khi tham gia vào nghiên cứu này. Chất lượng giáo dục điều dưỡng tại Đại học Quốc tế Hồng Bàng có thể được hưởng lợi ích từ ý kiến của bạn

Bảo mật thông tin

Bảo vệ thông tin cho người tham gia: Các cuộc khảo sát sẽ sử dụng thông tin mà hóa để xác định người tham gia; tên sẽ không được sử dụng. Thông tin về những người tham gia sẽ không được sử dụng trong bất kỳ công bố kết quả nào; kết quả sẽ chỉ được báo cáo dưới dạng dữ liệu nhóm.
<table>
<thead>
<tr>
<th>Tự nguyện tham gia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact information</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>Nếu bạn có bất kỳ câu hỏi hoặc quan tâm về nghiên cứu này hoặc nếu có bất kỳ vấn đề phát sinh, xin vui lòng liên hệ</td>
</tr>
<tr>
<td>Nhà nghiên cứu: Bà Trần Thị Huyền tại địa chỉ email: <a href="mailto:tran9017@bears.unco.edu">tran9017@bears.unco.edu</a></td>
</tr>
<tr>
<td>Nhà có vấn: Giáo sư Jeanette, McNeill tại địa chỉ email: <a href="mailto:Jeanette.McNeill@unco.edu">Jeanette.McNeill@unco.edu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chữ ký người tham gia</th>
<th>Ngày</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chữ ký nhà nghiên cứu</th>
<th>Ngày</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX G

INSTITUTIONAL REVIEW BOARD APPROVAL
DATE: April 17, 2019
TO: Thi Nguyen Tran, Bachelor of Nursing
FROM: University of Northern Colorado (UNCO) IRB
PROJECT TITLE: [1408003-1] Challenges for Nursing Students in the Clinical Learning Environment
SUBMISSION TYPE: New Project
ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS
DECISION DATE: April 17, 2019
EXPIRATION DATE: April 17, 2023

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Thank you for your patience with the UNC IRB process. The protocols and materials submitted in this package are thorough and clear. Your application is verified/approved exempt and you may begin participant recruitment and data collection using these protocols and materials.

Best wishes with this research.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Nicole Morse at 970-351-3108 or nicole.morse@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB’s records.