



Development of Self-Concept in Nursing Student based on Transformative Learning in Community Health Nursing Practicum I

Chanita Praditsathaporn^{1,*} and Kesorn Wangwon²

¹*School of Nursing, University of Phayao, Muang District, Phayao Province, Thailand 56000*

²*Mae Sai Sub-district Health Promotion Hospital, Muang District, Phayao Province, Thailand 56000*

*Corresponding author's E-mail: chanita42548@gmail.com

Abstract

The focus of this research was the self-concept development of nursing students based on the transformative learning. Facilities and obstacles developed student's conceptual framework in nursing practicum. In this Participation Action Research using the PAOR process, 21 participants enrolled in the course of Practicum in Community Health Nursing I, Bachelor of Nursing Science Program in academic year 2015. The data collection were varied according to research instruments including 1) 3 participation-observation per student with 30-45 minutes each time, 2) one in-depth interview per student with 30 minutes each time, 3) one group interview per week and 4) one reflect writing per week. The data were analyzed by using the content analysis. The research demonstrated a 4-step process of the self-concept development based on the transformative learning consisting of 1) preparing the case study, 2) providing contents linking to existing experience, 3) arranging analytical capacities which were synthesized by the learner, 4) using the reflective writing and dialogue. Facilitators prepared the group of learners, size of group, achievement motivation, role model, and used questioning technique to adjust student's conceptual framework. Learning styles of students were obstacles for their development of conceptual framework in nursing practicum.

Keywords: Transformative learning, Self-concept development, Nursing student

Introduction

The 21st century is the era of world change, driven by technology, knowledge, and innovation. These advancements require world citizens to be capable of engaging with information management and, therefore, new learning skills must be developed (Khammanee, 2012). The educational approach of the past century was ready-made. Teachers played important roles in conveying knowledge to students. Teaching emphasized recitation, failing to lead students to developed analyzing skills. Students, hence, became reactive listeners, but not intellectuals who were eager to obtain further information. Old-style teaching produced frivolous students, and did not promote hard work, team work, or public concern. (Sinlarat, 2014). Such techniques cannot lead students to achievement and happiness. Conversely, educational development in this century requires students to improve analytical thinking, problem-solving skills, communication skills, and team working. Students are sharpened to be confident, intellectual, patient, proactive, and responsible, and who know how to work as a team with public awareness in mind. (Sinlarat, 2014). Education now is no longer ready-made. Teachers have changed their roles from givers to facilitators. Teachers are supposed to modify the teaching environment to be friendly and to encourage team learning between teachers and students; this is done in such ways as providing students with internship opportunities that will further inspire them to recognize the importance of the environment surrounding them, and reflective writing assigned by teachers can also improve students. The new approach of educational management is called “Transformative Learning” (Prasertsan, 2016).

Transformative Learning has been developed on the basis of Learning Theory, aiming to change the internal attribution of persons on attitudes towards the meaning of world and life (Prajankett, 2014). Transformative Learning expands the educational concept to be deeper and larger so that it can reflect and demonstrate thoughts through analytical thinking and aesthetic dialogue (Mezirow, 2003).

In addition, it can lead to modification of thoughts, emotions, and characters (McAllister–Spooner, 2009) through different approaches to each student. Some significant approaches include analytical thinking, problem-solving skills, the pursuit of knowledge, and communication skills. These skills can assist students to be more confident, more responsible, and more capable of working with others, on the basis of individual and cultural diversity that can further bring about a sympathetic service mind to clients (Prachanketh, 2014). Considering all of the aforementioned contributions, Transformative Learning should be included to be part of the curriculum for nursing students.

The Office of the Higher Education Commission (2009), stipulates that successful nursing students should meet the following standards; 1) have adequate knowledge of nursing, as well as of relevant sciences; 2) provide holistic nursing practice, with cultural sensitivity and adherence to laws and work ethics; 3) have systematic thought, with appropriate and pragmatic judgment; 4) respect human dignity; 5) be responsible and kind; 6) have leadership skills; 7) have communication and team working skills; 8) be able to use technology and digital devices to support nursing practice and communication, and 9) have self-esteem and recognize the value of nursing. However, patients lack trust in nurses, because the nursing practices they obtain are different from their initial expectations (Leelataepin et al, 2011); nurses do not understand or take good care of their patients (Chaiwat & Thangwitoontham, 2012); and suggestions given by nurses are not in line with the lifestyle, society, culture, or mind of their patients. Although the nursing curriculum is improved regularly, focuses mainly on specific capabilities, such as intellectuality, (Skulpunyawat, 2014; Kosawanon et al, 2015), and reflection (Plack & Greenberg, 2005; Treenai, 2014). Nursing students still lack the knowledge and understanding of Transformative Learning that can help them to make optimistic changes concerning their thoughts, feelings, emotions, behaviors, and skills.

Findings found in the first 4 days of nursing practice in a community under Community Health Nursing Practicum I demonstrated that nursing students tried to fulfill the assignment by interviewing patients without concern for their

emotions, sadness, or health problems. During the interview, the nursing students did not touch patients' bodies or provide medical checkups to them. The interviews conducted by the nursing students seemed not to be for the benefits of medical treatment, but for completing the assignment. Suggestions provided by the nursing students were deemed useless, as they were not in line with the lifestyles or cultures of the patients. The nursing students did not provide care or kind treatment to patients. Moreover, the nursing students lacked critical thinking skills, since they were instructed wholly by the field supervisor. According to in-depth interviews about the feelings of nursing students in their first apprenticeships in the community, which is part of the Nursing for Elderly course, almost all nursing students were unhappy and uncomfortable to be in the community, due to loneliness. The field supervisor did not accompany nursing students when they visited elderly patients in the community, but asked a number of questions that the students could not answer; answers relying on theories were not able to satisfy the supervisor. Finally, the nursing students were afraid of answering the supervisor's questions.

The aforementioned circumstance inspired the research to use Transformative Learning to enhance the development of self-actualization in nursing students. Also, the researchers aimed to study the factors supporting, or obstructing, the development of self-conceptualization in nursing students. The research findings could be utilized for improving the Community Health Nursing Practicum I and for guiding the development of students in the School of Nursing.

Background

The background can be categorized into 2 parts, 1) teaching circumstances, and 2) community context, and each category can be stipulated as follows:

1) Teaching circumstances: Community Health Nursing Practicum I is part of the Bachelor of Nursing Science Program (amended in 2012). The Program's philosophy believes that people have the ability of self-improvement. Because good health consists of bio-psycho-social balance,

nursing therefore provides health services for remaining in good health, and for encouraging people (patients and/or clients) to manage and make decisions regarding their health. The nursing curriculum recognizes the importance of a holistic approach, integrated in nursing practices in order to enhance students' capacity for critical thinking, friendly treatment provision on the basis of human respect, morality, and ethicality. Nursing students can utilize their knowledge to improve the well-being of people, as stated in the motto of the University of Phayao: "Wisdom for Community Empowerment". The researchers believe that each person has different life experiences. To understand people coming from different societies, environments, cultures, or beliefs is an endlessly challenging learning process. Changing people' ideas of healthcare and well-being, then, requires art and science. In addition, the researchers also believe that nursing students have different experiences, are hard-working, and are eager to work, as long as they receive clear instructions and appropriate control.

Bachelor students come from 4 admission platforms: 1) regional quotas; 2) provincial quotas; 3) national admission, and 4) direct university examination. Nursing students mainly apply to fulfil the expectation of parents. Nursing is considered to be an honorable and permanent occupation. Nursing students, however have no idea about job preference, and know only that they have enough capacity to study and graduate from the program. Only a few nursing students intend to provide healthcare treatment to vulnerable people. Hence, teaching management, both inside and outside the curriculum, plays a significant role in enhancing the potential of students to be professional nurses after graduation.

Student development activities are ignored, while extracurricular activities, namely student camps for community development, have been changed from participatory development projects, conducted by students and people in the community, to philanthropic activities, focusing on the donation of items such as toys and sports equipment. Therefore, nursing students lack critical and analytical abilities, problem solving skills, and planning thoughts and skills. Nursing students do not have leadership skills. The Nursing

Student Council is not good at handing overwork, coaching, or team working between students coming from different admission platforms. In co-curricular activities, for instance, innovative productions, students and lecturers have different ideas. Students are not permitted to share ideas; some students are afraid of sharing ideas that are different from their lecturers, as this may negatively affect their learning scores. Nursing students eventually lose the confidence to share and reflect what they have in mind to others (Interviews with 10 representatives of the Nursing Student Council, 2015).

The Student Practice Course is a co-curricular activity that plays a critical role in enhancing the capacity of nursing students, and is done through actual work experience in the community and in local hospitals. Working in hospitals will train the students to work on individual in-patient cases. Patients who are admitted to a hospital due to serious sickness follow the instructions and suggestions of nurses firmly. However, the focal point of working in the community as required in Community Health Nursing Practicum I is on nursing practice provision to family members who are suffering from sickness. The position of nursing students in this circumstance is similar to a guest visiting a family. Nursing students must therefore develop different healthcare treatment strategies, as each patient will have a different sickness and a different potential level of healthcare. The objectives of this course are to enhance the capacity of nursing students, in terms of knowledge, intellectuality, positive attitude, morality, and ethicality. Additionally, the nursing students are expected to successfully utilize nursing practices and procedures for health promotion, disease prevention, medication, and rehabilitation, for the sake of family members' health and well-being. The proportion of lecturers and students is 1 lecturer: 8 students. The duration of student practice in the community covers 4 weeks. Nursing students on the course are assigned to participate in the following activities:

- Case visits: nursing students are assigned to visit 3 patients at least 3 times each. Nursing students can specify that they want to visit people with certain types of conditions, including people with chronic diseases, pregnant women, women in the puerperium period, pre-school children,

people with disabilities, and people with abandonment issues.

- Family visits: nursing students are assigned to visit 1 family, consisting of more than 1 family member, at least 3 times.

- Nursing students are assigned to provide 1 class of health education to the community.

2) Community context: the community selected is a sub-district (tambon) in the upper north region of Thailand. Geographically, the community landscape is divided into urban and rural areas. The community consists of 12 villages, with a total 6,328 people (3,293 females and 3,035 males), 1,693 households. The occupations of the people in community are mainly agricultural. This community has social capital, sourced from local wisdom philosophers, and natural resources, namely local vegetables and local foods. The most health problems found among people in community are diabetes, high blood pressure, and the results of accidents, respectively. The community has a Health Promotion Hospital (HPH), a Local Administrative Office (LAO), and 4 temples that every community member can use. For 6 years, the School of Nursing has used a participation approach, where people in community are convince to participate in healthcare activities for the sake of their health and well-being. The School of Nursing also trains some groups of people living in the community, such as retired government officials, children and youths, healthy elderly people, village headmen, community leaders, and Village Health Volunteers (VHV) to be healthcare developers.

Research methodology and acceptance of target community

The methodology of this research is Participation Action Research (PAR), consisting of 4 steps for the knowledge-sharing of participants (Kemmis & McTaggart, 2005), namely, Plan, Action, Observe, and Reflect.

The participants in this research consisted of 16 senior students (third-year students) of the School of Nursing in 2015

academic year, who were divided into 2 groups, with each group containing, 1 academic supervisor, 1 field supervisor from HPH, and 3 healthcare developers, along with 8 students. The research areas was in a sub-district in the upper north region of Thailand. The research assumption was that the development of self-conceptualization of the nursing students in accordance with Transformative Learning can make changes in their thoughts, feelings, emotions, and behaviors, particularly in terms of analytical thinking, knowledge acquisition, communication skills, self-confidence, team work, responsibility, and cultural sensitivity, which is further demonstrated in the form of kind and friendly nursing practice given to patients and clients. The duration of practice, there were 2 groups, it was 4 weeks per group or, in total, 16 weeks, from August to October 2016.

Step one: Plan

The academic supervisor, field supervisors, and students worked together in order to identify proper solutions. This step was started 'to understand' mutual requirements and expectations, and the nursing students and clients/patients collaborated 'to set up fundamental rules', including short-term (4 weeks) and long-term expectations. Students tried to find solutions, write fieldwork reports, set 4-month plans for case visit, family visits, and health education teaching, and scheduled invitations to the academic supervisor and field supervisors for evaluations. During

discussion, the students had to pay attention and actively listen to group mates, and not create disturbances by asking questions while their friends were presenting or speaking. After presentations, the nursing students should have critically analyzed the presentations they heard, while avoiding, criticizing the presenters unnecessarily. The academic supervisor and field supervisors should not have a criticized or blamed the students before clients or healthcare developers, and should have actively listened to them. The supervisors should have monitored and evaluated the students more than 1 time, in order to ensure them of the accuracy and impartiality of the evaluation. 'To adjust activities' was achieved by reducing family visits from visiting 3 families to 2 families, and by assigning each student to be responsible for teaching in 1 health education class, focusing on health promotion rather than diseases. The teaching venue and target beneficiaries were changed to be for people living in the community, rather than for patients in a hospital. 'To change the proportion between nursing students and family cases' was done from 1 student: 1 family to 2 students: 1 family. Lastly, 'to include healthcare developers' was seen in their participation in finalizing 4 cases for nursing students; only 1 case is stipulated in this research, as follows:

- **Case study:** a 67-year-old woman, who was blind and had hearing loss in one ear, had high blood pressure, but did not obtain medication as prescribed for



Figure 1 Nursing students were touched when they visited the house of the case study

2 years. During the first visit, she was found naked. The woman was lying on a small wooden bed in an old and dirty room. The bedsheet was smelly and dirty. A lot of food spillage was found around her bedroom, used dishes were on the floor, and the smell of her urine and stool was everywhere. Her children and family members neither took good care of the woman or welcomed the nursing students and the supervisor team. VHVs and the village headman used to visit the family, but did not appreciate the unfriendliness of the woman family members; therefore, they had not made any visits to the family in the last 6 months. The old lady did not have a disability identification card yet.

Step two: Action

The nursing students in each group were assigned to be in the community for 4 weeks, with the support of the academic supervisor, the field supervisors, and healthcare developers.

Step three: Observe

Each nursing student received 3 individual monitoring and evaluation sessions, conducted on the basis of participant observation. The supervisor team took 30–45 minutes to accompany the students on each case visit. In addition, group discussion would be scheduled once a week, in order to develop and change field activities as appropriate to the circumstances and conditions in the community. Supervisors asked for the permission of clients about the collection of information, including photos, and committed to destroy it to retain privacy when the project was completed in the next 4 months.

Step four: Reflect

To pragmatically learn from lessons and obstacles encountered, finding summary would be collated weekly through different approaches, including in-depth interviews (once for each student) and group discussions. The nursing students would be assigned to write online diaries on Facebook during the 4-weeks fieldwork in order to reflect their thoughts regarding their activities and assignments in the community.

Data and content analysis was done based on the concepts, starting from analyzing information obtained by observations, in-depth interviews, and group discussions, then comparing it to information collected by researchers and

research assistants to identify similarities and differences that would guarantee fact and data integrity, categorized by theme, pattern, core consistency, and core meaning related to the circumstances.

Research theories and concepts

The core concept used in this research is that of Transformative Learning, described by Mezirow and first published in the *Adult Education Quarterly Journal* in 1978. His article was about the situation of adult women returning to study in higher education programs (Panich, 2015). Mezirow's concepts were developed from famous philosophers, namely Thomas Kuhn, Paulo Freire, and Jürgen Habermas.

Mezirow stated that the goal of Transformative Learning was to build or to develop self-conceptualization, supporting learners to freely improve their thought, knowledge, and social responsibility (Mezirow, 1997; Mezirow, 2000). According to Mezirow, a Frame of Reference is formed from 2 parts: Habit of Mind, and Points of Views. Habit of Mind was defined as the subconscious mind developing from experiences through society, economy, culture, tradition, morality, and ethicality, which automatically operates without consciousness and is, relatively, not understandable. 'Points of Views' was defined as behaviors, speeches, and thoughts demonstrated by human beings (Kitchenham, 2008). Transformative Learning can encourage learners to confront what they do not know, and pay effort to searching for and defining meaning through reflection and analysis.

Transformative Learning can be implemented through following 11 steps (Mezirow, 1991; cited in Hatherley, 2011): 1) Encounter touchy situations, 2) Examine feelings and emotions, 3) Critically analyze the origin of feelings and emotions, 4) Recognize the relationship between self-contradiction and change procedure, 5) Identify shared similarity, 6) Look for alternative solutions, 7) Plan for change, 8) Learn new solutions as planned, 9) Try to implement new solutions as planned, 10) Build confidence towards change, and 11) Be with new concept.

Changed circumstances

Regarding the concept of Transformative Learning, the researchers used the PAOR Circle to explain the findings, stipulated as follows:

First circle: Planning started from building shared desires and expectations between the lecturers, supervisors, and students, followed by setting up fundamental rules; then, healthcare developers were involved in teaching design and management. This two-day step aimed to encourage the nursing students to participate in designing the learning procedure; however, only 5 students enjoyed this step, and the majority of the students lacked the confidence to fully participate. Some students expressed their opinions, as follows:

“...It just got the first time having plan my own life... it feel good and makes mature...”

“...How to do it? I never do it before, every time my teacher ordered me to do...”

“...I cannot do it, why don't you (lecturer) tell me what I must do day by day, I think it is much easier...”

Second circle: This step aimed to assist the nursing students in building good relationships with clients and enhance their capacity for teaching health education as planned. This step took 5 days to complete, and the results showed that assigning the nursing students to communicate directly with healthcare developers, in terms of health education teaching to people in the community, could allow the students to appreciate the real demands and lifestyle of those people. Finally, the nursing students came up with several topics of health education teaching, such as first aid for and the moving of elderly patients to hospital, schools for the elderly, body stretching (neck, eyes, and back) for workers in sewing factories, and instructing the elderly on foods appropriate for donating to monks. Another result coming from direct coordination with the community was that the nursing students became more responsible and punctual.

All of the nursing students (16) were uncomfortable with drafting a health promotion plan, since they had never done

it previously. Their advice was not in line with the lifestyle of people in the community and was difficult to follow; for example, suggesting people to eat berries that were not found inside the community. To solve the problem in this circle, the academic supervisor and field supervisors instructed the students to think about the demands of clients, the possibility of clients following given suggestions, consistency with community life, and academically explaining reasons. The nursing students adjusted themselves by sharing their draft plan with their friends, looking for academic references, consulting with healthcare developers on proper terms that should be used while teaching, and rehearsing their teaching with friends and field supervisors.

Health education teaching conducted by the first group of students demonstrated that they focused mainly on academic knowledge, lacked interaction with learners, and used uninviting learning material (such as one-page documents). Field supervisors advised and showed the students how to use learning materials such as games and northern local songs (Joi Sor) for teaching people in the community health education. The nursing students could, therefore, create attractive learning materials; for instance, role-plays and interactive presentations integrated with natural resources found in the community, such as vegetables and food models. In addition, supervisors encouraged the students to join cultural and religious activities organized in the community, in order to build good relationships and better understanding between the students and people in the community. The students were impressed with the local activities they participated in and the suggestions of supervisors to integrate local wisdom into health education teaching; some stated:

“Professor... Can Joi Sor be used for teaching health education?... I will look for adding other activities in my teaching then...”

“...I intended to teach them (people in the community) but they taught me how to make dessert...that is so good and it makes me think of my home in Isan (northeastern region of Thailand)... Is that what you (the supervisors) want to teach me?”

Regarding the family visits, the nursing students started the conversations by asking about general issues, actively listening to the feelings of family members they visited, and giving them academic knowledge once a good relationship had been built. However, the majority of the nursing students lacked knowledge of family culture, and misunderstood that they were guests who did not need to build any relationships with family members. Some students stipulated their feelings:

“...I never seen anyone was suffering like this... no clothes to wear... no care from family members... although we went to help her, her grandchildren did not welcome us at all and rudely talked to us...” (stated by 12 nursing students)

“...She (the elderly women, 67 years) did not get up from the bed at all, her mouth smelt very bad and a lot of plaque found, her hair smelt very bad too, I saw some cockroaches on her bed. She was with her younger sister who was also very old. I offered to make bed for her, but she did not accept it, I could not do anything then...” (stated by 12 nursing students)

Although all of the students were emotionally affected by the above case, they met a contradiction. They did not want to provide nursing practice to the case, due to dirtiness, which was contradictory to their position as nursing students. Some students expressed their thoughts:

“...I saw her (the elderly patient) who was naked, smelly, and dirty, I wanted to vomit and did not want to do anything to her, but I knew that I was training to be a professional nurse and I had to do it. So, I spent a bit of time to prepare my mind and then came back to do what I should do for her...” (stated by 14 nursing students). Only 2 nursing students could implement proper nursing practice during the case.

To solve the problem, the academic supervisor and field supervisors recommended that the students think about their feelings when they saw the case and contemplate the behavior of family members on the basis of reality and

possibility. The students should have imagined what they would do if the patient was one of their family members. Additionally, the nursing students were assigned to record their reflections using online (via Facebook) and offline (in a diary/notebook) platforms. The research findings revealed that many students who encountered the contradictory feelings in their mind shared these feelings with close friends, and discussed them with other students after dinner, while some of them cried and talked to their family.

Third circle: This step took from the beginning of the third week to the end of the fourth week, with the aim of evaluating the learning outcomes of the nursing students. The results showed that almost all of the nursing students could touch clients' bodies as necessary during medical checkups, impolite facial expressions and inappropriate gestures were reduced, and they listened to clients more. However, the findings demonstrated that the information the students gathered during the medical checkups was not adequate for making reliable conclusions under the theoretical framework, and that some students then came up with activities and suggestions that were not in line with the community context. For example:

Problem: Clients were at risk of emphysema.

Supportive evidence: Clients coughed, showed tiredness, and had suffered from emphysema in the past.

However, the students did not have information on respiratory rate or quality of respiration, such as whether or not clients were tired while breathing due to excess respiratory muscle use. The students suggested that the clients use higher pillows while sleeping in order to support their respiratory systems, but clients did not have enough pillows that could help them to follow their suggestions.

To solve the problem found in this circle, the nursing students proposed a group meeting be held once a day. The group meeting would be a platform for the students, who were assigned to spend about 20 minutes on the subject, to share information on family conditions, family nursing, and academic knowledge with their group mates, at a frequency

of 1 student per meeting per day. Such a proposal ensured the supervisor team that the students had become more responsible. The academic supervisor, field supervisors, and healthcare developers helped the students to communicate with people in the community, such as using simple terms that could make those people have a better understanding of the nursing students' suggestions during case visits and home visits. The supervisor team admired the students making pragmatic suggestions in accordance with the community context. The supervisor team also encouraged and stimulated the nursing students to create and test new nursing practices and activities during the last week of field practice. The final results revealed that the nursing students could provide appropriate, pragmatic, and understandable suggestions to clients with the support of academic references for example,

suggesting clients to drink 1 liter of water or 1 big Coca Cola bottle daily, in order to reduce unitary tract infection (UTI).

Almost all of the nursing students could set short-term goals for clients through coordination and good relationships with people in the community. The community was encouraged to be involved in nursing practices and healthcare services that could fulfill the demands and expectations of the people in it. Eventually, nursing students could coordinate with others fruitfully; some stated that:

"...I could set up the goal for taking grandma (the case) to receive medication by 2 ways; firstly was asking her husband living in Chiangrai to pick her up for receiving the medical treatment and medication at hospital or another way was to ask the village headman to do so. I would ask the village headman and grandma's husband to file the application for moving the grandma's profile to be under near HPH. She said if she did not need to go to a hospital located far away from her home, she could go to near HPH by herself since the transportation cost was cheap, 40 Bath each time while going to a provincial hospital was difficult and she could not afford for the travel expense. I already collaborated with the village headman and this evening, I will call her husband..."

"...I asked VHV and the village headman to help repair grandma's bed. VHV will go to visit her once in a month. Now, I gave clothes my friends donate to her and all of us (8 students) cleaned her bedroom and bedsheet..."

Although the majority of the nursing students could recognize and increase their self-esteem, and many of them could talk with confidence, some students were downhearted. Some students could understand the concept of Transformative Learning, but could not use it to change their mindset. To overcome such a challenge, the supervisor team assigned each student to build a tower of stone, with a rule to keep the tower standing for 10 minutes; if it collapsed, nobody would be blamed. The nursing students understood that failure could happen at any time, despite a comprehensive plan being set. To accomplish the plan, there should have been several parties involved, namely leaders, followers, and members. During the game, it was found that some students repeatedly tried to put stones in the same place, while some were angry with their friends for collapsing the tower. Rather than being angry with others, students should have relaxed and critically analyzed the learning model that they received from playing the game. The students finally understood that, generally, nursing students tried to compete with their friends, and expected merely to obtain better scores than others. However, after the fieldwork, nursing students understood how to establish effective, confident, and happy collaboration, and how to avoid a competitive and narrow mindset while working with others.

Research findings

The development of self-conceptualization of nursing students under the PAOR model through 4-week fieldwork could have led to the following 3 outcomes;

1) Transformative Learning was identified as a concept that could assist in building learning procedures through studying cases, linking between thinking capacity and experience in the past, synthesizing, evaluating value,

reflecting and reforming the learning procedure to be more valuable, redefining, and conceptualizing. The strength of case studying was that the students could systematically utilize their nursing knowledge and skill. It helped students to have better systems of thought. Case studying also helped the nursing students to freely develop their thoughts and share them with others for further active discussion. The nursing students could have had the chance to develop their participating and problem-solving skills via case studying (Punthasee & Sikaow, 2009). Case studying could stimulate the students in terms of analysis, discussion, and the utilization and integration knowledge in order to solve problems under different client contexts. However, according to the study of Tongnuang (2010), Transformative Learning could not be achieved by case studying alone. The nursing students would improve their abilities and social skills through participatory discussions. Joining active discussions would support students in enhancing their capacities and diminish discriminatory thoughts towards others. Regarding this research, Transformative Learning could encourage students to decrease competition with others, and increase freedom of thought and confidence. The research findings were supported by Kimsoongnern (2014), whose study confirmed that Transformative and Participatory Learning would improve the intellectual outcomes of the community nursing students, since such learning platforms aimed to build interactions between learners and learners, and between learners and teachers. Also, the nursing students were teenagers, who enjoyed freedom, challenge, interactions with friends and society, and new experiences. The limbic system, related to learning skill, can be more highly developed when human beings have interactions with others, through speaking, listening, seeing, and participating in different kinds of activities (Joocharoen, 2014), which must be created in line with context.

Learning content should be designed to be responsive to students' experiences, starting from easy and simple issues to difficult and complicated ones, from deduction to induction, and from practice to principles. The design of the learning content should aim to develop learners from relying on simple skills, like memorizing, to more sophisticated ones,

such as understanding, analyzing, synthesizing, and evaluating (Pimjaisai, 2010). Learning content designed for field practice should be able to refer to fundamental nursing subjects. During the fieldwork, the nursing students developed a healthcare evaluation template of Gordon (2010), to be an instrument of data collection. By doing so, the nursing students could obtain more comprehensive information that was further related to subjects about health promotion theories they studied previously. Later, the nursing students could examine health problems by considering the bio-psycho-social balance under the existence of family, community, and society and make improvements to adequately respond to the economy, society, culture, politics, and environment (Thai National Health Act, 2007). Visible outcomes could be found from health education teaching that nursing students had been suggested to use to improve their teaching methods until they could develop their teaching skills, as per the change in levels of learning skill from memorizing to synthesizing. According to the study of Sirisupluxana, students could explain the diabetes circle by innovating the concept of garbage development, it was concluded that such explanation demonstrated the development of cognitive skill (Sirisupluxana, 2013). Also, reflection of thought can enhance the level of learning (Kitiyanusan, 2009).

Reflection of thought helps learners to recognize, monitor, and evaluate emotions and feelings towards specific circumstances, encouraging the search for alternative solutions or work plans applicable for the future (Chong, 2009). Comparing it to the Thai Qualifications Framework for Higher Education, or TQF, reflection of thought was classified as a cognitive skill (Kaewbhrom, 2013). Leubontawaichai (2010) stated that reflection was a necessary skill in nurses, since it can help them to enhance their capacity for consultation, critical thinking, and analysis, considering the contexts and characteristics of each client. Nursing students can develop better attitudes towards themselves and their profession after practicing reflecting their thought (Thongcharoen et al, 2015). Attitudes and learning by doing are directly related to the experiences of learners. Experience reviewing could support learners in coming up with new or revised concepts

and definitions (Luksaneeyanawin, 2010). The research findings showed that nursing students who lacked a service mind and were originally capable of study only could ultimately recognize the value of nursing practice and services. They overcame their limitations and could work actively with the community for the sake of their (often elderly) patients and people in the community. Clients were happy. The nursing students became more responsible and punctual, since they could join meetings and meet clients as scheduled. Additionally, they also recognized their ability to provide assistance and support to people in the community and clients, with the awareness that some problems require the collaboration of several parties, including family and people in the community. A service mind alone was not adequate for the role; nursing students learnt to be active listeners, and learners who tried to look for academic references and possible resources to help clients. Nursing students also recognized the importance of specific dialogue that could be delivered through terminological simplification, in order to convey understandable messages to clients and family members.

Additionally, specific dialogue found in this research stemmed from being active and good listeners, who did not disturb speakers during speaking, shared opinions that would not harm anyone, and asked creative questions that would lead to positive, linkable, and pragmatic changes. According to the study of Imnamkhow et al (2011), nursing students were relieved and encouraged when they had a chance to actively listen to, and share the opinions of, others. It was an opportunity for them to understand not only their problems, but the problems of others as well. The nursing students in Imnamkhow's study could recognize their value, have positive attitude, and increase trust in their supervisors. Active listening could enhance their concentration, reduce prejudgment, and increase sympathy with others, which would eventually become factors supporting nursing students in practicing with kindness, morality, and ethical awareness (Turner et al, 2016). To successfully implement active discussion, nursing students must join icebreaking sessions to make them feel safe in sharing their opinions or experiences

with others (Rattanawimon et al, 2015). This research included an icebreaking session in the planning, and everyone was encouraged to freely share their demands and expectations.

2) Supportive factors of Transformative Learning

were groups of students, the size of groups, inspiration, role models, and questioning skills. Assigning nursing students to work in team reduces the pressure on them, as they can enjoy working with their friends (Wattanasajja & Cheunaron, 2011). Friendship is a powerful factor, empowering students to work proactively (Baeten et al., 2010). This research prepared a dormitory to allow students from the same group to stay together, in order to shorten their periods of self-adjustment. The size of groups was important, as each group should not have a lot of members; the recommended group size should not be more than 5–6 (Tongnuang, 2010). Pimjaisai (2010) also suggested that groups should not consist of more than 4–5 members. However, this research defined the proportion of lecturer and students to be 1 lecturer per 7–8 students, as stated by the Thailand Nursing Council. Many teenagers do not want to study due to a lack of inspiration. Lecturers must teach in interesting ways in order to increase students' inspiration and attention. Tohkani et al (2010) found that the inspiration of nursing students was in overcoming challenges and having energetic and disciplined lecturers. Lecturers should be role models and inspire students (Deshmukh and Mishra, 2014), because this encourages their students to enhance their cognitive skills and sustain positive identities (Naosuwan et al, 2015). Having at least 2 experienced lecturers could bring about the successful learning outcomes of students (Kimsoongnern, 2014). This research assigned supervisor teams, consisting of an academic supervisor and field supervisors who had more than 10 years of fieldwork experiences, to be role models for students. Conversations between healthcare developers and family members and the nursing students assigned to visit them provided good examples for the students to learn how to make appropriate and simple, but polite, communication with clients. Questioning skill was also a supportive factor, because it could increase the participation of learners (Uhari et al, 2003). Transformative Learning was

achieved in this research through questioning skills that should have been positive, direct, and open. Questioning skills should have led to appropriate answers that were not too narrow or shallow, or too wide or broad. Students should have obtained the opportunity to share their opinions and discuss, summarize, interpret, and link answers to subjects they studied previously, which further enhances the knowledge of students (Pimjaisai, 2010).

3) An obstacle to Transformative Learning was that each student had a different learning procedure. After 2 weeks of fieldwork were completed, it was found that nursing students could study with freedom and confidence. The students could adjust their own learning procedures to Transformative Learning and understand how to build positive attitudes under pressure (in particular, when clients in emergency situations required close monitoring from supervisors in order to prevent any possible harm damaging clients and patients). However, 2 students limited themselves to practice based on what had been stipulated in the subjects they had studied previously, and waited for help from friends and the supervisor team. The findings in this research were similar to those of Wongrattanakorn & Chittayanunt (2012), who found that the learning format could impact the learning capabilities of nursing students.

Impacts and changes

1) Impact to the School of Nursing: lecturers for the Nursing for Elderly course were interested in studying and implementing the concept of Transformative Learning until

the Program Committee considered the reformation of the Nursing Program in 2017. Nursing students participating in this research gradually improved their listening skills and looked for attractive and appropriate learning materials for instructing others on healthcare and health education. Four students collaborated with a local hospital as part of their fieldwork, and came up with innovations useful to clients. Three students in this research received scholarships co-funded by the University of Phayao and the Thailand Research Fund.

2) Impact to the community: healthcare developers recognized their value when nursing students came to ask them for suggestions and information on the community context. Healthcare developers could provide long-term care to community people after 50 hours of training, which was less than the period regulated by the province (70 hours). Field supervisors also received a winner award from the School of Nursing, University of Phayao, for being role models in the provision of healthcare treatment to clients and patients in the community.

Acknowledgement

The Researchers would like to thank Assoc. Prof. Dr. Suteera Prasertsan, Head of the 'Intelligence Breeding Project' (Phor Phan Panya), who encouraged the Researchers to improve the Nursing Program by using the concept of Transformative Learning. The Researchers would also like to thank the clients and their families and people in the community, who actively collaborated with the research implementation until it was successfully completed.

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