

Clinical differentiation: Achievement of planned peer-assistant education for nursing students

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Abstract

Context: Different types of peer education have been used in nursing. There is not a formal peer education in Iranian nursing curriculum.

Aim: The present study was conducted to identify and contextualize nursing students' perception of clinical training by planned peer assistant education.

Setting and Design: This study was conducted using conventional qualitative content analysis by a descriptive explorative method in Mazandaran University of Medical Sciences.

Materials and Methods: Participants included 24 trainees who received intensive care unit training by eight peer assistant. Data saturation was achieved through semi-structured in-depth individual interviews with 14 students and three focus group sessions.

Statistical Analysis Used: Data were analyzed using conventional qualitative content analysis with MaxQData.

Results: Participants' experiences were categorized into two main themes including (1) "Clinical differentiation" with three subthemes of clinical independence, courage, and sincere clinical experience, and (2) "facilitating interactive directed clinical learning" with two subthemes of facilitating clinical learning, and interactive directed learning were extracted from the qualitative content analysis of data.

Conclusions: Students participating in planned peer-assistant education had a positive perception of the program and considered "clinical differentiation" as its most important achievement.

Keywords: Clinical training, Nursing education, Peer assistance, Peer learning

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INTRODUCTION

Peer education relates to people of the same social group who are not professional teachers but who teach one another and learn simultaneously.^[1] This educational strategy is one of the

most effective methods for the development of knowledge and skills.^[2,3] that benefits both "teachers" and "learners" through cooperation.^[4] Hence, peer education has long been of interest in nursing theory, research, and clinical practice training.^[4,5]

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Various studies have argued that peer education has many benefits for the teacher-peer including enhanced self-esteem,^[6] improved learning,^[2] improved oral presentation skills, teamwork, decision-making, accountability,^[7] development of critical thinking skill,^[8] increased self-development and technical competency and enjoying the role of a peer teacher.^[3] Furthermore, it benefits the peer learner by improving learning outcomes,^[2,9] increasing motivation,^[10] increasing cognitive progress,^[11] improving problem-solving and critical thinking skills,^[12] and reducing stress and overcoming fears and concerns.^[13] Evidence suggests that various forms of planned peer education have been used in clinical practice training in medical sciences.^[13-15] Since clinical performance is a major part of nursing education, in which students transfer their theoretical knowledge into practical skills,^[16] some nursing education policy-makers have always considered using approaches such as peer education that improve the quality of clinical training. For instance, in Europe, clinical training constitutes at least half of the undergraduate nursing course. Nursing students trained by qualified nurses through peer education.^[16] In my nursing school (like most nursing schools of Iran), the internship program was used. The internship program is an innovation in the structure of nursing education, which includes the last year of nursing education. Students practice clinical skills under the wards' supervision during the internship period.^[17] We implemented planned peer assistant education to modify the process of clinical practice training in the intensive care unit. However to continue this educational approach, we need to reflect our performance and examine the achievements of the planned peer assistant education. Now, our most important question is, what experience and perception did the participating students have this training course, and what achievements had they perceived? To answer this question, we turned to the qualitative method. The qualitative methods enable the researchers to discover students' individual experiences and perception of this educational approach. Because discovering human emotions, views and values through quantitative or positivistic approaches are rather difficult.^[18] Since data extracted from real experiences are required for planning careful training to move from a teacher-based paradigm to a student-based paradigm and to replace passive approaches by active ones,^[19] the present study was conducted to investigate nursing students' experience and perception of training by planned peer assistant education in the intensive care unit (ICU) field training.

MATERIALS AND METHODS

Design

A qualitative approach and Elo and Kyngäs's conventional content analysis method.^[20]

Setting

The present qualitative conventional content analysis was conducted between March and October 2018 in a hospital in Iran with the Persian language.

Participations

Participants included eight peer assistant trainers and 24 trainees. Peer assistants were eight qualified students who first received the ward training by an instructor (first researcher). The instructor trains peer assistance about the nursing process of some procedures like airway management, mechanical ventilation, immobility, and hemodynamic instability. Then, they practiced the role of a peer assistance trainer based on a training program developed by the instructor. An instructor supported peer assistance by providing course planes, rules of the internship, daily goals, scientific resources, and inter/intra relationship. The peer assistant trainers were connected with their instructor during the course to receive support in the fields of theory and practice. Trainees were nursing students who educated with this approach. Thus, 14 students were interviewed, and 23 participated in focus groups consisting of 7 or 8 students. Five interviewees also attended focus group sessions. The inclusion criteria of participants were nursing students of the eighth semester, who had passed field training by planned peer assistant education, and purposively entered the study after signing informed consent forms. Students who were guests in all or part of their internship were excluded.

Data collection

To collect and generate data, semi-structured face-to-face in-depth interviews were conducted with participants, as well as three focus group sessions with a combination of peer assistants and trainees in each group. Interviews and focus group sessions were carried out at the end of the training course. The interviews were conducted at the faculty, and the duration of each interview was 40–50 min. Sampling continued until reaching data saturation. Before interviews and focus group sessions, the researcher explained study objectives, and steered the process of interviews and focus group sessions by asking the participants to describe the training course and their experiences and perceptions regarding the peer assistant education in the ICU. Then, based on their answers, the interviewer continued and directed the interviews by asking exploratory and probing questions. The interviews were recorded, transcribed verbatim and typed on the same day, and used as the main study data.

Data analysis

The data were analyzed using Elo and Kyngäs's conventional content analysis method.^[20] To this end, first, the interviews

were transcribed word by word as soon as possible after interviews. Then, the researcher analyzed overt and covert contents through lengthy engagement with the data. In the second stage, encoding progressed and categories emerged, and a general descriptive of the study participant was formulated by classifying codes, and related groups and subgroups, and finally, the process of analysis and the results were reported.^[20] Five expert qualitative researchers have a complete agreement in the coding extraction process. Inter-evaluator reliability was assessed using Krippendorff's alpha coefficient in Kalpha Macro.

The rigor of data was confirmed using Lincoln and Guba criteria.^[21] To improve rigors of data, peer check and member checks were used. Peer checks were done by two experts in the qualitative research method and member check were done by all of participants. Confirm ability was ensured by immersing in data, analyzing them with the research team and explaining all stages of the study from collection to analysis of data and formation of themes. Purposive sampling was used to achieve better transferability. Two experts checked to ensure consistency of categories with participants' statements.

Ethical considerations

The present study was approved by Mazandaran University of Medical Sciences (code: IR.MAZUMS.REC.1397.1136).

Participants included Peer-assistant trainers and trainees who volunteered to take part in the study with informed consent and were assured that their experiences and data would be reported confidentially. Student participation in research will not affect their final evaluation score in this course (Participating in research did not affect students' final score).

RESULTS

Thirty students, all of whom were undergraduates in the eighth semester and the ICU course, participated in the study. The mean (standard deviation) age of participants was 22.87 (0.65) years. There were 18 (53.33%) male students and 14 (46.67%) females. Two main themes were extracted from students' perceptions of the training course and the existence of a planned peer-assistant education through qualitative content analysis of data, including "clinical differentiation" with three subthemes, and "facilitating interactive learning" with two subthemes. Table 1 presents codes, subthemes, and themes extracted from these experiences.

Clinical differentiation

The present study participants described their perception of training by planned peer-assistant education as "clinical differentiation." They stated that participation in a planned

Table 1: Codes, subcategories, categories, and themes extracted from the perceptions of students participating in planned peer-assistant education

Codes	Categories and subcategories	Themes	
Readiness to work independently without a trainer	Clinical independence	Clinical differentiation	
Increased familiarity with the ward and patients			
Boosting courage to operate devices	Courage		
Lack of courage in the presence of a trainer			
Feeling satisfied with the course	Satisfaction	Friendly learning atmosphere	
Feeling satisfied with training			
Feeling comfortable	Reduced clinical stress		
Feeling less stressed			
Interest in ICU	Reduced fear and increased interest		
Eagerness to learn ICU cares			
Feeling satisfied to be with friends	Friendly relationship		
Creating a friendly atmosphere			
Feeling comfortable to ask peers questions	Friendly inquiry		
Comfortable to ask questions due to prior friendship			
Creating the spirit of cooperation among students	Extended clinical cooperation	Facilitation of clinical learning	Facilitation of interactive learning
Equal task sharing			
Creating a supportive atmosphere			
Greater personnel's cooperation	Personnel's cooperation in training		
Personnel's increased eagerness to teach students			
Creating new learning experiences	Access to proper learning experiences		
Introducing the ward's learning facilities	Participatory learning	Directed interactive learning	
Encouraging everybody to find answers			
Using group discussion method			
Making everybody bustle to learn			
Creating learning competition	Aroused active learning		
Planning for learning and training	Planned learning		
Having a daily learning program			

ICU: Intensive care unit

peer-assistant education program strengthened their relationship with peers due to the increasing range of joint activities, and that they found greater courage for independent patient care and differentiation through an intimate clinical experience. Differentiation means the ability to be independent and make decisions despite intimacy with peers.

Clinical independence

Participation of students in training peers helped them understand clinical independence. They expressed this independence as greater learning and readiness for independent clinical work in the absence of a trainer and their increased accountability in and familiarity with the ward. In this respect, one of the students argued:

“I’d prefer it if the instructor wasn’t there. I feel greater independence and learn more with these students. But, I wouldn’t have the courage or the face to do this with the instructor present?” (22 year-old trainee, P1).

Courage

The presence of the trainer on the one hand, and friendly atmosphere and the experience of independence on the other, made students think they gained greater courage. According to students, this courage included being more audacious to work with the equipment and gain greater success in performing clinical procedures, and such like. For instance, a student explained:

“I’d never have touched these devices if I was on my own; I wouldn’t have dared to touch some of them. But, the presence of peer assistant trainers gave us courage to operate them” (22 year-old trainee, P 3).

Friendly learning atmosphere

Another category perceived by students was “a friendly learning atmosphere.” Students explained that with the peer education, they had gained their clinical experiences in a friendly atmosphere. This category consists of five subcategories: “satisfaction,” “reduced clinical stress,” “reduced fear and increased interest,” “friendly relationship,” and “friendly questioning.” One of the peer assistant trainers described this friendly clinical experience as: *“Our friendship made the atmosphere gentle. It was enjoyable. Even with critically ill patients and the highly stressful atmosphere of ICU, it was still enjoyable”* (32 year-old trainer, P 5).

Experiences of students showed that learning in the presence of a peer has made interpersonal relationships friendlier, and made them more at ease and improved their learning. One of the students revealed:

“Our close friendship did not disrupt learning, and we felt at ease to ask questions, and if we didn’t know the answer, we searched for it and discussed it” (24 year-old trainee, P 10).

Taking part in peer training made students express their learning problems in an open atmosphere away from the stress of the trainer’s presence, thus enabling them to perceive a friendlier questioning environment. A student described this experience as:

“Training should generally link people together. We were very comfortable with peer assistant trainers and easily asked questions. They were also very friendly. Generally, there was greater friendliness in this training method” (24 year-old trainee, P 8).

Facilitating interactive learning

This was the second theme resulting from students’ experiences of participation in peer education, which had two categories and six subcategories. Students described this theme as the facilitation of clinical learning and the guided interactive learning experience.

Facilitation of clinical learning

Students stated that peer education makes the process of learning easier and with fewer barriers through clinical cooperation, attracting cooperation of personnel, and access to appropriate learning experiences. According to participants’ experiences, peer education creates a supportive atmosphere and thus strengthens students’ spirit of cooperation and a fair division of work. A student explained:

“All students liked to learn, and cooperated with one another and shared the work. For example; they said ‘I had ABG once, now it’s your turn’ (24 year-old trainee, P 9).

According to participants’ experiences, by attracting personnel’s trust (since students assumed more responsibilities), peer training encouraged the nurses to teach students and also have positive attitudes toward them, resulting in their greater cooperation in training. A student described their experience as: *“Personnel trusted us very much, and delegated the tasks to us. Perhaps because we had given them the feeling that we had truly come to learn and not waste time”* (24 year-old trainer, P 6).

Guided interactive learning

Students described their experience of participation in peer education as guided interactive learning so that they had friendly and active participation in small groups, made an effort to learn and search for up-to-date topics, and proceeded toward their planned goal by following

a prearranged program. A student described their experience as:

“It was an opportunity for us to work harder to learn. Since interacting with these students made us learn a lot of things. For instance, they were more knowledgeable than us, and we read about it if we didn’t know the answer” (24 year-old trainer, P 6)

Another student argued: *“Debating is so good, and reinforces our spirit of learning, and there is nothing wrong with asking and learning”* (32 year-old trainer, P 5).

Students stated that by providing a structured learning and training program, planned peer assistant education develops learning opportunities and creates planned learning. A student revealed:

“We were very eager on the first day, and wanted to learn everything. But, they [peer assistant trainers] told us not to be so hasty because they had planned for example to talk about and work with this device, and the other day we would do and interpret ABG. We have a program for each day” (23 year-old trainee, P 3).

DISCUSSION

The results revealed two themes: “clinical differentiation” and “facilitation of interactive learning.” Other studies have also addressed students’ perception of peer education, including a study by Ravanipour *et al.*, (2015) in which the following four themes emerged: Paradoxical dualism, peer exploitation, first learning efficiency, and socialization practice.^[19] In a systematic study, six qualitative studies on experiences of undergraduate nursing students in relation to peer education were reviewed, and common themes were identified, and two new insights were obtained, including “personal development” and “professional development.”^[22] Despite similarities in the themes extracted between the present and the above studies, the difference in the present study may be attributed to the specific type of peer education that participants had experienced. The present study participants had experienced planned peer-assistant education supervised by a support clinical trainer (clinical trainer support), such that the training peers had a role as assistant trainers.

The present study results showed that students had a positive perception of taking part in the planned peer assistant education, such that it can have beneficial achievements for them. “Clinical differentiation” was considered the most important achievement of participating in this training method. Differentiation is one of the main concepts of Bowen’s Theory, which

refers to the ability of experiencing friendship with others while being independent.^[23] According to this theory, people with high levels of differentiation respect other people’s identity without criticism or emotional reaction, are able to accept their responsibilities, avoid preoccupation with hierarchy, cope with stresses, have the feeling of harmony and consistency of personality, and help others by perception and focusing on their own and other people’s strengths.^[19] The results also showed that students have greater accountability in the presence of their peers, and have reached high levels of independence. Despite friendship among peers, they used this friendly atmosphere to reduce stress, calm the unfamiliar and stressful teaching-learning environment of ICU without emotional reactions or judging one another (each other). In agreement with the present study, another study argued that the experience of peer education helps students in overcoming concerns and fears in clinical settings while increasing their knowledge and skills.^[24-26] Stone *et al.* believe that the implementation of this training method supports students’ independence and their responsibility to learn.^[27] The reason for achieving clinical independence while experiencing friendliness is that peer education focuses on students’ self-learning, and not merely clinical trainers’ guidelines. According to Bowen’s theory (as a social learning theory), experience, perception, and knowledge are formed and developed through human interactions,^[5] and since there are similar background and experiences among group members in peer education, and the relationships are reciprocal, each participant will have something of value to help others and obtained from others,^[28] which leads to clinical independence in a friendly environment.

The second theme that emerged from participant’s perception of planned peer clinical education was the facilitation of interactive learning. In agreement with this result, other studies have also reported improved learning through peer education.^[26,28] This perception may be due to the positive consequences of this approach that previous research has suggested. In this method, active learning opportunities with immediate feedbacks help the deeper perception of knowledge and retaining this knowledge.^[3] This kind of learning is based on the assumption that there is a set of skills, experiences, and resources within each group, which are advertently or inadvertently used to support, strengthen, and improve all participants,^[28] and that is why the skills of problem-solving, discussion, and rethinking,^[26,29] teamwork,^[15] interaction with patients^[29] improve.

Although using a planned peer-assistant education method generally improves the clinical experience and reduces

the need for clinical trainers, the role of clinical teachers in evaluation, education, and leadership should not be overlooked. Thus, this method can be used to complete and strengthen clinical training in conjunction with clinical trainers,^[1] such that clinical learning through interaction with peers and support and guidance of clinical trainers can be facilitated; like the present study, participants who experienced peer clinical education were supported and guided by clinical trainers.

Study limitations

In this study, we sought to discover the achievements of the planned peer assistant education method, so all our themes were positive in nature. Therefore, it is recommended that other studies be performed to discover other aspects of the planned peer-assistant education method.

CONCLUSION

The results of the present study suggest that participating students in the planned peer-assistant education method had positive perceptions of participation in this program and considered clinical differentiation (experiencing independence in clinical sincerity) as the most important achievement. Facilitation of interactive learning, improved learning, and other active learning characteristic that support, strengthen, and improve students in the learning process is the result of the application of teaching methods like peer assistant education.

Conflicts of interest

There are no conflicts of interest.

Authors' contribution

RN: Concepts, Design, Literature search, interviews, Data acquisition, Manuscript preparation, Guarantor.

FH: Definition of intellectual content, analysis, Manuscript preparation, Manuscript editing.

ZV: Manuscript preparation, Manuscript editing.

HS: Data acquisition, Manuscript editing, Manuscript review.

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