

Access this article online
Quick Response Code:

Website: www.jehp.net
DOI: 10.4103/jehp.jehp_169_17

Exploring the challenges of clinical education in nursing and strategies to improve it: A qualitative study

Saba Farzi, Mohsen Shahriari¹, Sedigheh Farzi²

Abstract:

BACKGROUND: Clinical education is the heart of professional education in nursing. The perspective of nursing students and clinical nursing educators as the main owners of teaching–learning process are of determinants affecting clinical education process. This study was conducted to explore and to describe the clinical education problems and strategies to improve it from the perspective of nursing students and clinical nursing educators.

MATERIALS AND METHODS: The study was conducted using a descriptive qualitative method in 2017. Participants included 35 baccalaureate nursing students and 5 clinical nursing educators from nursing faculty of Isfahan University of Medical Sciences, Isfahan, Iran. Participants were selected using purposeful sampling method. Data were collected through semi-structured individual interviews and used qualitative content analysis for analysis.

RESULTS: The 2 main categories, 7 subcategories, and 19 sub-sub categories extracted from interviews. The two categories were “challenges of clinical education in nursing with four subcategories: fear, insufficient readiness of student, incompetency of clinical educators, unpleasant atmosphere of clinical environment,” and “strategies for improving clinical education of nursing with three subcategories: the use of nursing education models and methods, improvement of communication between faculty and practice, and holding orientation stage at the beginning of training.”

CONCLUSIONS: The findings show that clinical strategies, including employing experienced clinical educators, attempting to enhance the learning environment, developing the relationship between faculty and practice, participation of clinical nurses in clinical education, paying attention to entering behavior, and holding orientation stage at the beginning of training, can improve clinical education of nursing.

Keywords:

Clinical education, clinical educator, Iran, nursing student, qualitative research

Student Research Center,
Faculty of Nursing and
Midwifery, ¹Nursing and
Midwifery Care Research
Center, Faculty of Nursing
and Midwifery, ²Nursing
and Midwifery Care
Research Centre, Adult
Health Nursing, Faculty
of Nursing and Midwifery,
Isfahan University of
Medical Sciences,
Isfahan, Iran

Address for correspondence:

Dr. Sedigheh Farzi,
Isfahan University of
Medical Sciences,
Isfahan, Iran.
E-mail: sedighehfarzi@
nm.mui.ac.ir

Received: 18-11-2017

Accepted: 03-01-2018

For reprints contact: reprints@medknow.com

Introduction

Clinical education is a main part of nursing curriculum^[1] and about 50% of curriculum time of nursing education is dedicated to it. One of the key characteristics of nursing as a science and profession is that its education requires a close relationship between theoretical domain and clinical domain. This means nursing is not educated only theoretically or clinically.^[2] The aim of

clinical education is to obtain and develop professional skills to provide appropriate conditions for using in clinical care.^[3] At this stage, students gain clinical experiences with learning clinical activities,^[4] and they are guided to the link between theory and practice to solve complex problems of health care and to provide safe care with critical thinking.^[5]

In Iran, nursing education program is offered by nursing faculty. Entry into nursing undergraduate is possible through centralized entrance examination taken

How to cite this article: Farzi S, Shahriari M, Farzi S. Exploring the challenges of clinical education in nursing and strategies to improve it: A qualitative study. J Edu Health Promot 2018;7:115.

throughout the country. It has 4-year course during 8 half academic years in the form of theoretical courses (70 units) and clinical courses (65 units). Students are apprenticed after or at the same time as learning theoretical courses. Clinical education is mainly done by faculty members.

Without clinical education, training competent and efficient nurses is a distant goal, and any problem in clinical education makes their efficiency flawed.^[6] Clinical education problems have adverse effects in achieving the goals of the nursing profession, and consequently, they have a direct impact on public health.^[7] In recent years, clinical education has been of particular interest to nursing researchers, and it has been studied in terms of different aspects. According to a study by Kelly, poor preparation of clinical instructors and according to other studies,^[8] fear and anxiety of making mistakes have been addressed as the problems of students in clinical education environment.^[3] Furthermore, the lack of clinical expertise of clinical educators, unreasonable clinical evaluation, disproportion between the number of students, and faculty facilities have been stated as the problems existing in clinical education.^[9]

Studies performed in Iran show that there is a relatively deep gap between nursing education process and clinical practice. So that with existing clinical education, student does not gain the ability required for authenticating their merits and clinical skills and the education does not have required effectiveness.^[10] Researchers, in their clinical experiences, have observed some cases in which the students, even with proper theoretical knowledge, are in trouble at the patient's bedside and they are not able to provide care and do the skills independently.^[11] It seems that there are some problems hindering students in learning effectively, because in practice, they cannot do what they learned. What are the problems? This is a question that researchers try to find out its answer. In addition, to improve and enhance the quality of clinical education, it is required to continuously assess existing situations, to recognize the strengths, and to improve the weaknesses, and in this regard, opinions of clinical educators and students as the real owners of teaching-learning process can be the strategies for improve the education programs. Thus, the present study has been aimed to disclose the problems of clinical education in nursing and to provide the strategies to improve it.

Materials and Methods

This study was conducted to explore and to describe the clinical education problems and strategies to improve it. To achieve such an aim, clinical nursing educators and nursing students' experiences and perceptions about

clinical education were examined through a descriptive qualitative method. The goal of qualitative descriptive studies is to provide a comprehensive summary regarding everyday events. These studies are less interpretive than other qualitative approaches such as ones based on phenomenological or grounded theory.^[12]

Participants were selected from among the clinical nursing educators and nursing students of Isfahan University of Medical Sciences (IUMS), Isfahan, Iran, with at least one clinical education course at hospital and interested in participating in the study. Participants were selected using purposeful sampling method. Sampling performed with maximum variation by considering the characteristics of participants regarding age, gender, half school year of students and clinical educators' years of clinical education, and their perspectives and experiences.

The data were collected from January to February 2017 using semi-structured individual interviews with the participants. All interviews conducted in a private room at the hospital or faculty. The time and place of the interview determined with the participants' consent. The interviews were in-depth and semi-structured and began with general questions and continued with the main research questions, including:

- "Are you satisfied with your clinical education? To what degree?"
- "What is your reason?"
- "Please provide more details."
- "In this context, what problems there are?"
- "What should we do to improve it?"

The interview duration was 30–45 min. Selection of participants and data analysis continued to reach a saturation point where no new concept emerges from data analysis. Data saturation refers to the repetition of discovered information and confirmation of previously collected data.^[13] Sampling stops when no new information and categories obtained.^[14] All interviews performed with the written consent of the participants and conducted and recorded by one of the researchers (SEF).

This study used inductive qualitative content analysis, so we employed the qualitative content analysis method of Graneheim and Lundman for data analysis.^[15] The interviews were transcribed verbatim by SEF followed by capturing the participants' perceptions. First, SEF independently selected all meaning units (sentences or paragraphs extracted from the participants' statements) and condensed the meaning units of two selected manuscripts (one clinical educator and one student). After that, the authors discussed the meaning units; after resolving discrepancies, SEF extracted the condensed

meaning units from the remaining transcripts and reviewed them with SAF and MSH. Subsequently, SEF, SAF, and MSH assigned codes to the condensed meaning units, reflecting the participants' words in a more abstract manner. Finally, similar codes grouped into specific subcategories using an inductive process involving constant comparison, reflection, and interpretation by SEF.

This study employed confirmability, credibility, dependability, and transferability to achieve the various aspects of rigor indicated by Guba.^[16] To enhance the confirmability and to facilitate the audit, detailed information explicitly expressed for different stages of data gathering, analysis, and inference. To obtain the credibility, information approved by peer debriefing and reviews of the data, codes, subcategories, and categories. The extracted codes and results were retrieved and shared with the participants to validate the congruency of the codes with their experiences. Dependability achieved by engaging more than one researcher in data analysis (SEF, SAF, and MSH). Recruiting participants with different demographic characteristics enhanced transferability of the findings.

Ethics Committee of IUMS approved the study (IR. REC.1395.2.063). Verbal and written informed consent obtained from participants. After the introduction of the researcher and stating the importance and the objectives of the survey, the allowance of participants to interview obtained. Participants confided that the information would remain confidential. We used numeric codes in place of personal names to secure the confidentiality of

the interviews. The participants were free to withdraw from the study anytime.

Results

Participants in this study included 35 nursing students (20 female, 15 male, 7 freshmen, 6 sophomores, 15 juniors, and 7 senior) and 5 clinical educators (3 female, 2 male; the mean work experience 15 years). Mean age of nursing students and clinical educators were 23 and 45 years, respectively. After analyzing the interviews, 2 main categories, 7 subcategories, and 19 sub-sub categories emerged [Table 1].

Challenges of clinical education in nursing

Fear
The experiences of participants indicated that clinical educator's incessant criticism during the procedure and student's fear of improper care of the patients have impaired learning process. In this regard, one of the students of 6th semester stated: "I was changing wound dressing and I had stress because of incessant criticism. I feared because after changing the wound dressing, clinical educator always says: why do you do it in that way? I think if she/he wasn't with me, I would do that easier..." (P_4). The student of 3rd semester stated that: "... important thing is that we deal with the lives of people, we fear that we can't do proper care and the patient will be in trouble..." (P_2)

Attendance of patient relative at bedside and evaluating the students during the procedure were of the participants' experiences causing fear and inability in students, and

Table 1: Categories, subcategories, and sub-sub categories

Categories	Sub-categories	Subcategories
Challenges of clinical education in nursing	Fear	Fear of criticism by clinical educator
		Fear of the patient's relatives
		Fear of doing the wrong procedure
		Fear of scoring and evaluation
		Inadequate self-esteem
	Insufficient readiness of student	Inadequate mastery on cognitive components of clinical skills
		Inadequate mastery of clinical skills in the clinical skills laboratory
		Incompetency of clinical educators
	Unpleasant atmosphere of clinical environment	The lack of direct teaching clinical skills
		Inadequate mastery of clinical skills
		Lack of feedback to students
		Inappropriate behavior by doctors and nurses with nursing teacher and student
Strategies for improving clinical education of nursing	The use of nursing education models and methods	Ignoring teacher and nursing student
		Double-dealing nurse with medical and nursing students
		The use of the nursing process
	Improvement of communication between faculty and practice	The use of the simulation
		Peer learning
		Clinical nurse's participation in clinical education
Holding orientation stage at the beginning of training	Providing lesson plans and clinical course content	
	Assessment of cognitive and affective domain of student	

consequently, they could not transfer their skills to clinical environment. One of the students of 5th semester said: "... one day, I wanted to do venipuncture. Two of his relatives were there. I was always worried about what I do. I started to do venipuncture with fear and unfortunately I did not succeed." (P₅). A student of fourth semester stated: "one of our problem is that we are always concerned about our scores and this disrupts our concentration. We always think if we act incorrect, we will get low score..." (P₆)

Insufficient readiness of student

In this regard, the participants' experiences showed that insufficient readiness of student including insufficient self-confidence; students' inadequate mastery of cognitive components of clinical skills; and inadequate mastery of clinical skills in the skill lab have disturbed clinical education process. In this regard, one of the students of 4th semester said: "...when the clinical educator asks us who want to do the procedure? No one usually becomes volunteer, because we think that we cannot do it correctly..." (P₃)

Another student of 3rd semester said: "... in many cases, we still don't have the necessary theoretical knowledge and due to this, we have not adequate self-confidence to do clinical procedures..." (P₁₂)

One of the students of 5th semester said: "Our readiness in practice (clinical skills laboratory) is not so high and now we cannot do large wound dressing alone. Maybe we can do small wound dressing but we cannot do large dressing..." (P₂₉)

Incompetency of clinical educator

Clinical educator as a major component of the education process plays a key role in effective clinical education. Participants' experiences indicated that many clinical educators do not have the necessary clinical skills and also do not teach nursing procedures directly. One of the students of 3rd semester said: "... In orthopedic ward, I must change the wound dressing, I couldn't do that alone because clinical educator didn't show us how to do, so, I didn't know how to change the wound dressing alone..." (P₇)

The participants said that clinical educators do not provide the necessary feedback after the students perform the skills, so students are not sure of the correctness of their performance. In this regard, one of the students of 6th semester said: "the educator asked me whether I taught diabetic patient how to inject insulin or not. I said yes. But he/she didn't check what I taught and didn't tell me that it was taught correctly or not. Now, I don't know that I did it correctly or not..." (P₁)

Unpleasant atmosphere of clinical environment

Inappropriate behaviors of doctors and nurses with nursing students and clinical educators and being neglected in clinical environment by doctors and nurses have reduced the participants' willingness to teach and to learn. Hence, they remember clinical environment as degrading environment. One of the students of 5th semester said: "... we feel frustrated in ward because when our clinical educator and we are at bedside and do the procedure, the doctor comes and does its work without any regard to us and interrupt our doing..." (P₁₄)

In addition, the participants said that the nurses behave with medical students better and pay no attention to nursing students. These dual behaviors make nursing students disillusioned and unmotivated. In this regard, the student of 7th semester said: "... when we go to the ward and the nurses see our labels with a title of nursing student, they frown on us instead of hoping us, but when they see the interns or residents, they behave with them sincerely and answer their questions better..." (P₁₃). The participants' experiences show that the doctors do not trust nursing students compared to medical students and this make nursing students disillusioned. In this regard, one of the students of 6th semester said: "...my patient obtained digoxin. I check his/her pulse and it was less than 50 and I said this problem to doctor. He was surprised and said medical student to check the patient's pulse. He/she checked it quickly and said: it is more than 50. The doctor left the room without paying any attention to me. I checked the pulse again and it was really less than 50 but doctor didn't believe what I said but accepted what the medical student said..." (P₁₅)

Strategies for improving clinical education of nursing

The use of nursing education models and methods

The participants suggested the using nursing education models and methods including nursing process, simulation, and peer learning in clinical education process as strategies to improve the education. They believed that nursing process enhances students' critical thinking and simulation through reducing the fear of harming to the patients improves the students' learning. One of the students of 7th semester said: "... it is really better that nursing process is performed at bedside and now it is just theoretical and we just get the history and write nursing diagnosis but there are no planning, implementation and evaluation..." (P₁₆). In this regard, one of the educators with 12 years working experiences said: "...I think nursing process and its implementation at bedside should be more emphasized, because the students learn better..." (P₂₀). In addition, majority of the students said that the attendance of the students of higher semesters besides them enhances their learning. In this regard, a student of 3rd semester said: "... I think

it is better that we spend clinical education course along with the students of higher semesters because in this way, we don't fear and also we have no stress..." (P₅)

Simulation is one of the strategies suggested to enhance the clinical education by the participants. In this regard, one of the students of 2nd semester said: "... it is better that all facilities are used. When the patient doesn't allow us to do anything, it is suggested that a film is shown us and also, a scenario is given us and tell us what we should do..." (P₁₈)

Improvement of communication between faculty and practice

The experience of participants showed that the relationship between faculty and practice is an affective factor improving the clinical education process. They stated that cooperation without fear, blame, and suppress between the clinical environment and faculty will create a sincere atmosphere and alleviate fears and concerns of students and education would be more effective. In addition, with the participation of clinical nurses in clinical education process, it can be helped to improve the relationship between the faculty and clinical environment to reduce the gap between theory and practice. In this regard, one of the clinical educators with 15 years working experiences said: "...the relationship between the faculty and clinical environment should be better. I think it is better that clinical nurses are asked to participate in clinical education..." (P₂₁). The participants' experiences indicated that, when clinical nurses are involved in education process, they will have a sense of responsibility and close relationship with students and the faculty and also will behave with nursing student better. This reduces the degrading atmosphere of clinical environment. In this regard, one of the students of 5th semester said: "... it is better, in some course of training; we are trained by clinical nurses because their clinical knowledge is high and they have good relationship with the staff..." (P₁₇)

Holding orientation stage at the beginning of training

The students believed that the clinical educator should introduce the lesson plan, the contents of training course, and evaluation method during orientation stage at the beginning of the clinical education so that the students know the contents of the course. In this regard, a student of 5th semester said: "...the lesson plan should be provided for us in training. Many times, we don't know what we will learn and do and how we will evaluated. If the lesson plan is provided at the beginning and the training course continues according to it, repetition will be prevented..." (P₁₉). In addition, the students said that after providing lesson plan, the clinical educator should examine the cognitive and emotional domain of the student before clinical skills education, and if

it is necessary, reforming measures should be taken. The participant knew the orientation stage as a basic requirement of clinical education improvement.

Discussion

This study aimed to explore and to describe the experiences of nursing clinical educators and nursing students about clinical education problems and to provide the strategies to improve it. Fear is one of the problems experienced by the students. Furthermore, in studies, fear is named as a constant companion of the students and restrictions for clinical learning.^[17] Students experience the fear of wrong action and doing the procedure at the bedside incorrectly.^[18] In the present study, the participants expressed their discomfort from educator's incessant criticism during the clinical procedure. In a study performed in Hong Kong, one of the most important sources of students' fear was the educator's behavior.^[1] Attendance of patient relative at bedside causes fear and feeling of inability to do the procedure. This result is consistent with the result of the study by Tahery *et al.* in which it was noted that the greatest stressor in students is related to patient's relatives.^[7] Hence, to improve clinical education, the educators should use the measures such as simulation and providing feedback to the students after the procedure, to help the students to reduce their fear.

Clinical educator is one of the main components of education, and if he/she does not pay attention to effective clinical education principles, this can prevent the transfer of learning. Inadequate skill of clinical educator in doing nursing procedures and indirect teaching were other problems noted by the participants. Kelly in his study stated that clinical educator needs theoretical knowledge and practical skills to teach the nursing procedures.^[8] Grantcharov and Reznick said that the student should see how the educator does the procedure so that he will be able to do the procedure correctly.^[19] In addition, the student should have acquired the knowledge and skills needed for the procedure. The students stated that the educator should criticize the students' performance and gives feedback to them. Improper feedback causes disillusionment.^[20] To improve the learning, proper feedback should be provided^[19] so that the student can identify his strengths and weaknesses to improve and strengthen his action and behavior.

To educate effectively, knowing the student's characteristic is very important. Despite the availability of proper education conditions, if the student is not in proper situation, the education cannot be done effectively. The participants' experiences indicated that the students did not acquire the necessary skills to do

the procedures in clinical skills laboratory. In addition, they do not have cognitive knowledge required for doing the procedure. In this regard, a study by Alavi and Abedi showed that, before clinical education, the students should acquire necessary preparation such as theoretical and practical knowledge for doing the procedures. Before starting the clinical education, the clinical educator must ensure that the student is ready cognitively and emotionally, and if there is any defect, required education should be provided.^[21]

Supportive learning environment is the most important factor motivating the student to learn and reducing their stress,^[1] due to the impact of supportive clinical environment on learning-teaching process, the environment is of particular importance to improve the quality of clinical learning.^[22] According to findings, unpleasant atmosphere of clinical environment, dual and discriminatory behaviors of doctors and nurses with nursing student in clinical environment compared to medical students have caused feelings of frustration and loss of confidence in nursing students. The participants stated that doctors and nurses don't behave them well compared to medical students and they do not take the necessary support. The studies showed that improper behavior of the clinical staff causes negative attitude and discomfort of the students^[8] and clinical staff can help to create a supportive learning environment through proper relationship with nursing students.^[17]

Strategies to improve clinical education raised by participants included using nursing education models and methods, improving relationship, and doing orientation stage. The participants offered nursing process, simulation, and peer learning as the strategies to improve the clinical education. Nursing process is an organized and systematic approach that nurses use it to care needs of patients.^[23] Using nursing process in the education domain has been raised as a useful method to increase the students' learning in the field of nursing care. Despite the emphasis of Iranian nursing curriculum on the use of the nursing process in clinical education, according to the participants, it is not used effectively, so they emphasized on the full implementation of the nursing process in clinical education. In this regard, Adib-Hajbaghery *et al.* reported that nursing process-based clinical education and group discussion lead to better and continual learning.^[24]

Today, with the teacher-centered to student-centered paradigm shift in education, using active strategies including peer learning is taken into consideration. This strategy is increasingly used in medicine, but it has been used less in nursing.^[25] The participants knew

the use of this strategy effective in clinical education. Peer learning leads to increase in self-confidence of the students in clinical practice, improvement of learning in the emotional, motor and cognitive domains, and critical thinking of students.^[26] The participants raised the use of simulation in clinical education as an effective method can be used to improve the clinical education. In a study by Terzioğlu *et al.*, it was found that using simulation in learning environment leads to the increase in competency, reduction in anxiety, and consequently, it improves the clinical learning of students.^[27]

Positive learning environment is important for the development of effective student performance skills and their individual motivation to learn and successful professional socialization process.^[28] Professional and supportive relationships are key factors creating a positive environment. The participants introduced the improvement of the relationship between the faculty and clinical environment and participation of clinical nurses in clinical education as the strategies to improve the clinical education. Learning with the participation of nurses and students through using theoretical knowledge in practice and enhancing the students' self-confidence improves the clinical education.^[29,30] The results of other studies showed the supportive role of nurses^[31] and other students in clinical learning.^[18] Therefore, using the methods to train, support clinical nurses to the commitment to monitoring, to train nursing students, and to implement continuing professional development programs in the field of clinical nurse mentorship are useful.^[28]

The participants stated that the clinical educator should perform the orientation stage at the beginning of the clinical education so that the students know the objectives and contents of education course and evaluation method. In this regard, Chan *et al.* state that, for effective clinical education, orientation stage should be provided before clinical education by instructor, and the information on clinical environment, the objectives of course and students' duties should be provided. Then, the cognitive, affective, and skills necessary to perform nursing procedures were examined.^[1]

Although it is the nature of qualitative studies, limitation of this study is the low number of participants that may reduce its generalization to different places. However, purposive sampling method was used to select participants from different semesters and the appropriate number of participants.

Conclusions

Nurses play an important role in public health by providing proper services in the areas of prevention,

education, and care. To play this role, they should acquire much required preparation in the clinical areas through proper education. The participants' experiences indicate numerous problems in nursing education including problems related to students, educators, and clinical environments. In clinical environment, doctors and nurses show more attention to medical students than other students of health sciences including nursing students and this leads to negative attitude of other students. Now, there is unsuitable atmosphere in the clinical environment for nursing students than other students, especially medical students. This can have negative effects in creation learning opportunities and also can reduce learning motivation. Hence, planning to change the degrading and negative atmosphere of clinical environment can be effective in creating learning opportunities, providing safe care, and improving interprofessional collaboration. In addition, providing the ground for increased relationship between the faculty and clinical environment, employing capable clinical educator who are interested in their profession, employing clinical nurses to participate in clinical education, and providing better educational facilities such as simulations can improve learning experience of the participants.

Acknowledgment

The researchers wish to appreciate the Nursing and Midwifery Care Research Center, IUMS, for financial support for the project (295,063) and the baccalaureate nursing students and clinical nursing educators who participated in the study.

Financial support and sponsorship

This study was performed as an approved project with financial support from the Nursing and Midwifery Research Center of Isfahan University of Medical Sciences.

Conflicts of interest

There are no conflicts of interest.

References

- Chan CK, So WK, Fong DY. Hong Kong baccalaureate nursing students' stress and their coping strategies in clinical practice. *J Prof Nurs* 2009;25:307-13.
- Papastavrou E, Lambrinou E, Tsangari H, Saarikoski M, Leino-Kilpi H. Student nurses experience of learning in the clinical environment. *Nurse Educ Pract* 2010; 10:176-82.
- Elcigil A, Yildirim Sari H. Determining problems experienced by student nurses in their work with clinical educators in Turkey. *Nurse Educ Today* 2007; 27:491-8.
- Bartz C, Dean-Baar S. Reshaping clinical nursing education: An academic-service partnership. *J Prof Nurs* 2003; 19:216-22.
- Orton VM. Nurses as Clinical Teachers: Variables Affecting Teaching Comfort and Self-Efficacy. University of Southern California; 2007.
- Habibi H, Khaghanizade M, Mahmoodi H, Ebadi A. Comparison of the effects of modern assessment methods (DOPS and Mini-CEX) with traditional method on nursing students' clinical skills: A randomized trial. *Iran J Med Educ* 2013; 13:364-72.
- Tahery N, Kaiali M, Yaghoobi M, Koleini Z. The stressors of clinical training in nursing students-Abadan nursing faculty (2009). *Mod Care J* 2011;8:159-65.
- Kelly C. Student's perceptions of effective clinical teaching revisited. *Nurse Educ Today* 2007; 27:885-92.
- Kamran A, Sharghi A, Malekpour A, Biria M, Dadkhah B. Status and strategies for improving nursing education in view of nursing students in Ardebil University of medical sciences. *Iran J Nurs Res* 2013; 7:25-31.
- Hematimaslakpak M, Khalilzadeh H. Nursing studies' perspectives on effective clinical education: A qualitative study. *Iran J Nurs Res* 2012; 7:718-27.
- Farzi S, Haghani F, Farzi S. The challenges of nursing procedures training from the perspective of nursing students: A qualitative study. *Strides Dev Med Educ* 2016; 12:645-52.
- Sandelowski M. Whatever happened to qualitative description? *Res Nurs Health* 2000; 23:334-40.
- Streubert H, Carpenter D. Qualitative research in nursing. In: *Advanced the Humanistic Imperative*. 5th ed. Philadelphia: Wolters Kluwer, Lippincott Williams & Wilkins; 2011.
- Munhall P. *Nursing Research*. Sudbury: Jones and Bartlett Publishers; 2007.
- Graneheim UH, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today* 2004; 24:105-12.
- Guba EG. Criteria for assessing the trustworthiness of naturalistic inquiries. *Educ Commun Technol* 1981; 29:75-91.
- Pourghane P. Nursing studies 'experience of clinical teaching: A qualitative study. holistic nursing and midwifery. *J Nurs Midwifery Fac Guilan Med Univ* 2013; 2:16-26.
- Mongwe RN. Student Nurses' Experiences of the Clinical Field in the Limpopo Province as Learning Field: A Phenomenological Study; 2009.
- Grantcharov TP, Reznick RK. Teaching procedural skills. *BMJ* 2008; 336:1129-31.
- Haghani F, Fakhari M. Feedback in clinical education: Concept, barriers, and strategies. *Iran J Med Educ* 2014; 13:869-85.
- Alavi M, Abedi H. The experiences of nursing students in clinical training effectiveness. *J Sabzevar Univ Med Sci* 2006; 13:127-33.
- Kachiwala AY. Student Nurses' Opinions Regarding the Clinical Learning Environment and Supervision at Malamulo Hospital. Malawi: Faculty of Health Sciences, University of The Witwatersrand; 2006.
- Yildirim B, Ozkahraman S. Critical thinking in nursing process and education. *Int J Humanit Soc Sci* 2011; 1:257-62.
- Adib-Hajbaghery M, MirBagher N, Heidari S. Clinical nursing education based on nursing process and group discussion. *Iran J Med Educ* 2012; 11:728-34.
- Ravanipour M, Bahreini M, Ravanipour M. Exploring nursing students' experience of peer learning in clinical practice. *J Educ Health Promot* 2015; 4:46.
- Stenberg M, Carlson E. Swedish student nurses' perception of peer learning as an educational model during clinical practice in a hospital setting-an evaluation study. *BMC Nurs* 2015; 14:48.
- Terzioğlu F, Yücel Ç, Koç G, Şimşek Ş, Yaşar BN, Şahan FU, et al. A new strategy in nursing education: From hybrid simulation to clinical practice. *Nurse Educ Today* 2016; 39:104-8.
- Antohe I, Riklikiene O, Tichelaar E, Saarikoski M. Clinical education and training of student nurses in four moderately New European Union countries: Assessment of students' satisfaction with the learning environment. *Nurse Educ Pract* 2016; 17:139-44.
- Dehghani M, Ghanavati S, Soltani B, Aghakhani N, Haghpanah S.

- Impact of clinical supervision on field training of nursing students at Urmia University of medical sciences. *J Adv Med Educ Prof* 2016; 4:88-92.
30. Nasrin H, Soroor P, Soodabeh J. Nursing challenges in motivating nursing students through clinical education: A Grounded theory study. *Nurs Res Pract* 2012; 2012:161359.
31. Jokar F, Haghani F. Nursing clinical education, the challenges facing: A review article. *Iran J Med Educ* 2011; 10:1153-60.