

Investigating the challenges of clinical education from the viewpoint of nursing educators and students: A cross-sectional study

SAGE Open Medicine

Volume 11: 1–8

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DOI: 10.1177/20503121221143578

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Abstract

Objective: Nursing clinical education is an important part of education in nursing in which students obtain the necessary skills to care for patients. The aim of this study was to investigate the challenges of clinical education from the viewpoint of nursing educators and students.

Methods: In this cross-sectional study, the required information was collected in the form of a census from nursing educators and students. Based on the census method, the research samples consisted of 163 nursing educators and students. The data collection tool is a researcher-made questionnaire. The data were analyzed using descriptive statistics and an independent *t*-test.

Results: The findings showed in the view of students the factors such as incongruity between educator's expertise and internship, lack of qualified educators, student's disinclination to study, lack of cooperation of health professionals, students' unawareness of their strengths and weaknesses. Lack of skilled clinical educators in the educational planning section.

Conclusion: According to the current challenges, identifying and then modifying clinical education challenges lead to achieving the educational goals and consequently, educating skillful personnel and supplying high-quality care services.

Keywords

Education, clinical, challenges, nursing

Date received: 12 April 2022; accepted: 16 November 2022

Introduction

Training is the process and result of mastering systematic knowledge and skills, a prerequisite for preparing a person for life and work. The purpose of training is to form a personality that is able to adapt to life through characteristics such as independence, activity, creativity, etc.¹ Since today's emphasis is on the ability to apply knowledge to practice.² Clinical education is an essential element in the education of legal, medical and psychological professionals. There are some commonalities in the education of these professionals that support an understanding of the importance of clinical education in helping students apply academic education to the "real world" of clients and patients.³

Most clinical training involves immersion of the student in the workplace for varying periods of time and is therefore similar to the broader constructs of work-based learning or work-integrated learning.⁴ The goals of clinical education

are to develop critical thinking, professional knowledge and skills, and decision-making skills, and to increase the experience and self-confidence of students.^{5–8}

Clinical education can have different meanings for different disciplines. This requires a different approach in each field. In summary, clinical education has evolved into multifaceted educational models that have been adopted by various disciplines to create and implement experiential learning opportunities for students.³ In this regard, clinical education is one of the most important parts of nursing education. For

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personal growth and improving practical skills is very important.⁹ The fundamental principle of clinical education is that it prepares nursing students for their professional nursing careers with real practice and to guide their learning and research in national and international contexts and their socialization in their professional roles to provide appropriate and effective patient care.^{5,10}

Considering that learning in clinical environments is an important part of the professional development of nursing students,¹¹ Learning of nursing students in a clinical education environment is considered a major factor in nursing education programs and helps students to integrate theoretical training with clinical practice and eliminate the theory-practice gap in nursing, therefore reforming of the educational environment should be attended by those involved in the education in order to standardize it in providing educational facilities.¹²

Researchers believe that instructive moments that are directly related to optimal patient care can potentially have an impact and develop a positive learning culture in clinical settings.¹³

According to the results of a study, nursing students stated that nurses in the clinical environment have many positive and negative direct effects on the clinical learning of nursing students.⁷ On the other hand, learning in crowded and complex situations where patient care is a priority can be challenging.¹⁴

The important point is that nursing students have a concern about their clinical education that must be effectively and efficiently implemented, and if this doesn't succeed correctly, these students will not have a major goal; because the continuity of their activities in the future is somehow influenced by the clinical education process.¹⁵

Also, based on the studies, the development and promotion of teaching-learning quality in clinical education requires explaining the current situation and identifying its challenges, problems and strengths.¹⁶ In this regard, the research findings on the challenges of clinical nursing education revealed that the many problems of clinical education were related to factors associated with clinical educators (78%), learners (73%), clinical environment (71%), educational program (66%), clinical evaluation (60%) and related problems (43%).¹⁷ Also, the result of another study which was carried out with the aim of investigating the barriers to clinical education in nursing, barriers to clinical education were identified as follows: barriers to clinical education in individual contexts related to students (lack of motivation in students), professors (lack of experienced and highly educated professors) and nurses (lack of staff cooperation), managerial (lack of time), facilities (lack of facilities and working conditions), structures and other aspects.¹⁸ The research results of Hakim et al. also showed that 51.9% of the students were not satisfied with the evaluation method and assessed this area as undesirable in the field of monitoring and evaluation.¹⁵ Considering the importance of the

viewpoints of educators and students in the educational process (theoretical and clinical) and the differences in the provision of educational services in related institutions as well as performing limited studies in this field, the author performed research with the aim of investigating the challenges of clinical education from the viewpoint of nursing educators and student; so that we can improve the quality of care and ultimately the satisfaction of the health system's clients by identifying the challenges in this regard, especially the clinical environment, and then taking steps to overcome these barriers.

Materials and methods

Study design

This descriptive study was conducted in 2020 from April to June on nursing students and instructors.

Sampling

The research samples consisted of 163 nursing students and educators who are equal to the research community. In other words, in this research, all nursing educators and students of the nursing and midwifery faculty were selected. Therefore, power analysis for sample size calculation was not done.

A total of 163 subjects included the second semester of junior students ($n=58$), the second semester of senior students ($n=82$), and nursing educators ($n=23$, who have more than 1 year of clinical education experience) of the School of Nursing and Midwifery. The inclusion criteria in the present study included being in education and being satisfied with participating in the study, as well as completion of the questionnaire. Exclusion criteria included unwillingness to participate in the study or having a study leave at the time of the research.

Ethical consideration

The author then distributed the questionnaire after receiving the code of **ethical consideration** (U-95107 research project) from the vice chancellor for research of the university and obtaining oral and written consent from the samples. In addition, participants in the research were assured that the data were completely confidential.

Instrumentation

The author considered a time to fill in the questionnaires so that the research samples had more opportunity to do it. In order to determine the validity, the questionnaire was given to 10 members of the nursing and midwifery faculty and their opinions were examined.

The reliability of the questionnaire was determined using the results of a preliminary study on 24 people from the samples for the entire questionnaire using Cronbach's alpha coefficient, which was 0.92.

Table 1. Frequency distribution of the demographic characteristics.

Group	Variable		Frequency	Percent (%)
Educators <i>N</i> = 23	Age	32–41	4	17.4
		42–51	15	65.2
		52–61	4	17.4
	Sex	Women	15	65.2
		Men	8	34.8
	Marital status	Married	17	73.9
		Single	6	26.1
	Degree of education	PhD	8	34.8
		Masters	15	65.2
	Nursing work experience	1–10	4	17.4
11–20		15	65.2	
21–30		4	17.4	
Students <i>N</i> = 140	Age	20–26	125	89.3
		25–32	10	7.1
		33–38	5	3.6
	Sex	Women	95	67.9
		Men	45	32.1
	Marital status	Married	10	7.1
Single		130	92.9	
Semester education	Second semester of junior students	58	41.4	
	Second semester of senior students	82	58.6	
Total			163	100

Data collection

In this research, a researcher-made questionnaire was used to collect the data using a literature review, articles, and a survey of experts. After determining the reliability of the questionnaire, questionnaires were distributed among students and educators.

The questionnaire consists of two parts: the demographic information of the educators from questions (1–8) and the demographic information of the students from questions (1–6) and the challenges of clinical education from questions (1–36). The challenges of clinical education comprise six domains, including educators from questions (1–7), students (questions 8–14), clinical education environments from questions (15–19), educational planning from questions (20–25), welfare-educational facilities from questions (26–30) and clinical evaluation from questions (31–36).

The method of the score is in a way that a zero score does not affect the response at all, the score of 1 has a low impact on the response, the score of 2 has a high impact on the response and the score of 3 has a very high impact on the response. The minimum score for the total number of questions was zero and the maximum was 108. The division of responses is in a way that 0–26 scores do not affect the responses at all, 27–54 have a low impact, 55–81 have a high impact and 82–108 have a very high impact on the responses.

In the domain of educators, 0–5 do not affect at all, 6–10 have a low impact, 11–15 have a high impact and 16–21 have very effective. In the domain of clinical education, the score of 0–3 do not affect at all, 4–7 have a low impact, 8–11 have

a high impact and 12–15 have a very effective. In the domain of educational planning, the score of 0–4 does not really affect at all, 5–9 have a low impact, 10–14 have a high impact and 15–18 have a very high impact. In the domain of welfare educational facilities the score of 0–3 does not affect at all, 4–7 has a low impact, 8–11 has a high impact and 12–15 have a very high impact. In the domain of clinical evaluation, the score of 0–4 does not affect at all, 5–9 have a low impact, 10–14 have a high impact and 15–18 have a very high impact.

Statistical analysis

After collecting questionnaires, SPSS₂₀ software was used in order to analyze the data, and descriptive statistics such as mean and standard deviation and frequency percentage were used for the description of demographic data and inferential was used to compare mean and standard deviation between two independent groups. The findings were presented as frequency distribution tables and numerical sizes such as mean and standard deviation. The significance level used in statistical tests was considered as $p < 0.05$.

Results

The results showed that most of the research samples were women. The student's age mean was 23.60 and the educator's age mean was 45.75. Most of the educators have master's degrees and most of them have work experience from 11 to 20 years (Table 1).

Table 2. Students' opinions about nursing clinical education challenges.

Clinical education challenge	Students' opinions	
	Percent (%)	Number
1 The incongruity between educators' skills and related apprenticeship	86	120
2 Lack of the skilled clinical educators in the educational planning section	82	115
3 The lack of interest in studying among students is caused by unawareness of nursing duties	89	125
4 Medical sanitary members (Doctors and Nurses) in education centers refuse to cooperate with students	93	130
5 Students unaware of their strengths and weakness even after completing an apprenticeship	79	110
6 Lack of education facilities and amenities for students and educators and inaccessibility to a conference hall in clinic	94	132

Table 3. Educators' opinions about nursing clinical education challenges.

Clinical education challenge	Educators' opinions	
	Percent (%)	Number
1 Inadequate scientific information and clinical experiences of educators	78	18
2 Students' reluctance to engage in clinical activities	91	21
3 Inadequate opportunity to identify educational targets and assessment process of nursing students	83	19
4 The incongruity between clinical education goals and theoretical targets in the educational planning section	96	22
5 Lack of education facilities in the hospital	87	20
6 Hospital staff don't have enough motivation to help nursing students	91	21

Students' opinions about nursing clinical education challenges

In general, students (nursing students) believe that incongruity between educators' skills and related apprenticeship has the most impact on clinical education challenges in the educators' section (86%). In students' idea, the lack of skilled clinical educators (82%) has the greatest impact on challenges in the educational planning section. In students' opinion, the lack of interest in studying among students caused by unawareness of nursing duties (89%) has the most effects on challenge creation. In their idea, medical sanitary members (Doctors and Nurses) in education centers refuse to cooperate with students which causes problems in clinical education challenges (93%). Overall, 79% of these challenges are related to students' unawareness of their strengths and weakness even after completing an apprenticeship. In general, 94% lack of education facilities and amenities for students and educators and inaccessibility to a conference hall in the clinic have the greatest impact on creating clinical education challenges (Table 2).

Educators' opinions about nursing clinical education challenges

In educators' idea, (78%) inadequate scientific information and clinical experiences of educators have the most effect in

clinical education challenges. In the students' section, from the viewpoint of educators, (91%) students' reluctance to clinical activities has the greatest effect on clinical education challenges. In clinical assessment, from educators' idea, inadequate opportunity to identify educational targets and assessment process of nursing students (83%) has a significant effect on clinical education challenges. In the educational planning section, educators believe that (96%) incongruity between clinical education goals and theoretical targets are reasons for clinical education challenges. In the educational welfare facilities section, in educators' opinion (87%), the lack of education facilities in hospital has the most influence on clinical education challenges. In the clinical education section, educators believe that in hospitals, staff doesn't have enough motivation to help nursing students (91%) (Table 3). The mean of educators' and students' opinions on the clinical education challenges in all sections are compared by *T*-test and only in the educators' section, do we observe a significant difference between the two groups ($p < 0.05$). In other words, the mean of students' ideas in the educators' section was more than the mean of educators' ideas.

Discussion

Clinical education is a vital and essential part of nursing education.¹⁹ This paper showed that in spite of efforts, there are many challenges that nursing education would be faced with.

Researchers consider it very important to identify the challenges of clinical education in nursing.²⁰ With regard to the challenges of clinical education, the results showed that in the educator's section, 86% of students pointed to incongruity between educators' skills and related job, as the key factor that influences clinical challenges. On the other hand, researchers say identifying the best teaching strategies to maintain and enhance the engagement of nursing students in academic and clinical environments has always been a challenge for nursing educators.²¹ In their report, the researchers listed poor school infrastructure and insufficient number of educators as problems for students.²² Paying attention to the coach as the most effective factor in clinical education and understanding the challenges associated with the agent for improvement of clinical education is very important and effective. In this regard, the use of a safe and effective evaluation system is very important.²³

The researchers stated that based on the barriers identified in different dimensions, appropriate programs and strategies should be designed and implemented with each of the existing barriers in order to improve the quality of clinical education.¹⁸ Also, according to the results of another study, the largest obstacle in clinical training is the lack of motivation and interest of students.²⁴ In the nursing students section, 89% of students believe that being unaware of nursing duties and inclination to study the subjects are the main reasons for problems and challenges in clinical education. Based on the study results, prevalence of challenge of nursing students in their practical training was reasonable.²⁵ Nursing education is an ever-changing discipline, and as soon as it shifts from regular classes to web-based clinical guidelines, educators are required to guide, motivate, and coach students to gain a more technologically advanced experience in their field of study.²⁶ According to the results of the present study and other studies, for attracting the cooperation of the medical team it is necessary to provide better research facilities for their cooperation.

In the educational planning section, 82% of students believe that the lack of experienced educators in the clinical setting is the main reason for clinical challenges. In this regard, researchers express that determining the basic effective features in clinical education of nursing faculty members is necessary to improve the quality of education and ultimately improve the efficiency and effectiveness of the educational system.²³ On the other hand, according to the results of another study, nursing students stated that they face challenges due to the absence of educators during essential hours.²⁵ Since learning and getting experience in the clinic have a direct relationship with clinical educators' characteristics, the education-learning process through experienced educators would encourage students to use their capacity.

In the educational welfare facilities section, lack of conference room in clinical setting and lack of rest room for trainer and student are main problems that 94% of students pointed to. In this regard, Dağ et al.²² say the physical and educational opportunities of organizations should be

considered in order to increase the efficiency of clinical education. Also, areas of clinical activity should be selected from institutions that have a suitable physical infrastructure to create positive learning environments. So that, Hakim et al.¹⁵ in their study stated the improvement of facilities and equipment in the clinical environment, the review of tools and evaluation processes is recommended. Hence, managers and planners are included as part of the designers of educational and apprenticeship programs and this ensures that all students have the opportunities to learn. Also equipping the hospital with educational facilities in different parts for controlling and supervising the behavior of students by educators and college and hospitals administrators to avoid following incorrect routines and promoting safety procedures in clinical practice is from constructive steps to improve the quantity and quality of clinical education because the educational content and clinical settings are effective in motivating students for applying information and solving problems and elevating the power of judgment in students. According to the results, it is necessary to take some strategies for providing appropriate welfare facilities such as the use of hospital self-service, a suitable place to change clothes and rest, especially on the night shift at the hospital, and an educational center for students.

In the clinical assessment section, 79% of students discussed that disappointment in weaknesses and strengths after an education course is the main cause of clinical challenges. On the other hand, in the study of Antohe et al.,²⁷ most students rated their clinical learning environment positively. Of course, it can be acknowledged that perhaps one of the reasons for the difference between the results of the study of Antohe et al. and the results of other studies, implementation of individual supervision by students has been in training courses and in clinical environments. Also, the most satisfied students had the experience of individual supervision. Regarding clinical education challenges that is related to the above-mentioned section, 78% of educators believe that inadequate clinical experience and scientific knowledge have the most effects on clinical challenges. Learning and getting information in clinical contexts have direct relation with clinical educators' characteristics.

In this regard, research results confirm that educators experience various problems, including problems related to having a heavy workload, providing a suitable clinical environment, having too many students, implementing nursing care programs, and having a poor physical environment in clinics and enlisting the support of health-care team members. In addition, educators stated that these problems negatively affect the teaching of some nursing practices and effective learning and education.²² This process, done by efficient teachers, has huge effect on maximum usage of their capabilities. The identified challenges in clinical education reflect the need to support from clinical educators and helping them in order to prepare for their role through educational programs or change the policy.²⁸

In students' section (students assessment), 91% of educators stated that the reluctance of students to do clinical exercises is the main reason for clinical education challenge. Perhaps, in this regard, it can be stated that one of the reasons for the reluctance of nursing students to do clinical exercises is the inappropriateness of the educational structures of the clinical environment. In the clinical education section, 85% of educators argued that hospitals, which have stressful contexts, can cause clinical education challenges. In this regard, in a study, students stated that the first 2 months of clinical placement were stressful for them.²⁹

Also, based on the results of a study, some students stated that the field of clinical practice was stressful for us, because it was related to human life.²⁵

Therefore, it can be said that all students experience stress when they enter the clinical environment because it is an unfamiliar environment for them. So, by considering this issue and providing necessary solutions, including establishing proper communication with students upon entering the clinical environment, nursing educators should facilitate this stressful situation for them so that they do not get confused and lack of motivation.

Clinical education is related to the application of nursing education and provides an opportunity for students to learn in actual conditions. However, lack of control over the conditions that make up clinical environments can affect learning.²² In the education planning section, 96% of educators believe that incongruity between theoretical and clinical education targets effect clinical education challenges. In this regard, researchers suggest adapting to rapidly changing and advancing healthcare adjustments; nurse educators should regularly review and evaluate the training curricula, strategies, and education-learning programs adopted to prepare new professional nurses.²⁶ On the other hand, in order to solve this problem (inconsistency between theoretical and practical goals), clinical educators should improve the practical skills of nursing students by providing appropriate and up-to-date scientific and practical training in the clinical environment to increase their professional competence.

In the welfare facilities section, 87% of educators stated that lack of educational instruments has the biggest effect in clinical challenges. In this regard, the results of the study showed that the lack of role model, educators responsibilities, insufficient support structure, lack of equipment, conditions related to the challenge of the faculty responsibility were the issues that nursing students faced in the clinical environment.²⁵ Therefore, the use of educational aids can be useful for better understanding educational materials. In particular, in the cases in which prevalence of a specific disease is low, educational goals of student will not be achieved; therefore, using educational aids can improve learning and accessibility to educational goals.

In the clinical assessment section, 83% of educators stated that inadequate opportunity for identifying targets and

method of students' evaluation are the most important reasons for clinical challenges. In a study by Hakim, 31.1% of these samples had low satisfaction about method of evaluating used by educators.³⁰ On the other hand, the results of the study by Antohe et al.²⁷ indicate that the individual monitoring model is an important factor in the overall satisfaction of students in their clinical education courses. One of the most important parts for educators is evaluation (assessing process). If it is done correctly, it can cause students' improvement and examine the success of apprenticeship courses and it is one of the most basic actions for improving the quality of educational services. It was suggested, before assessing the process, that it's better to have concordance between lessons taught theoretically and clinical lessons and the use of skilled educators for each part of lesson. Kim et al. stated in their study that nursing educators may need to develop more confidence in their knowledge and increase control over their teaching strategies. Nursing schools and hospitals may need more support and educational opportunities for clinical nurse educators.⁸

Of course, to improve the quality of nursing education, it is very important for students to know their duties, roles, nursing duties, numbers of courses, and kinds of procedures.

This motivates and encourages students. So it is essential that the authorities regulate the clinical booklet and give them to the students during their registration. As well as reloading the evaluation forms and adjusting them based on educational goals and existing facilities, and informing the strengths and weaknesses of students after the end of each course can lead to providing better service quality. As a result, this action can also improve the health of the community. It should be noted that the limitation of this study is the lack of power analysis to calculate the sample size, because in this research, all nursing educators and students of the nursing and midwifery faculty were selected. Therefore, it is necessary to consider this important issue in all nursing schools in order to identify and finally solve all the challenges of nursing students. Because by implementing this, the motivation of nursing students in the clinical environment increases and they gain the necessary ability to provide care to the patient.

In general, identifying the challenges of clinical education and then solving and correcting them leads to achieving high educational goals (effective and efficient education), training capable and creative people, providing quality and optimal care, improving the health of clients and finally, the productivity of the health system becomes. To achieve these goals, further investigation and continuous clinical evaluation is needed. Also, by considering the results of this research to solve the mentioned challenges, the relevant planners and managers can witness more coordination between theoretical learning and clinical services, training capable students and providing appropriate services by nursing personnel.

Conclusions

Due to the existence of many challenges in clinical education and according to the results of this study, students and teachers have also mentioned this issue in clinical environments.

Therefore, nursing managers should provide better conditions, so that more motivation and enthusiasm is created in the students, educators and other personnel. Finally, the author suggests using experienced and efficient educators to teach theory courses and clinical courses. Also, the activities of educators and students should be continuously evaluated with accurate and objective tools.

Author contributions

A. H: writing – original draft, data collection, data analysis and reviewing the final edition.

Declaration of conflicting interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethics approval

Ethical approval for this study was obtained from * Ahvaz Jundishapur University of Medical Sciences (U-95107)*.


Funding

The author disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: I would like to acknowledge the research deputy of Ahvaz Jundishapur University of Medical Sciences for their support of the U-95107 research project that was so important for the completion of this study.

Informed consent

The researcher for the implementation of this study got oral and written consent from the samples.

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Supplemental material

Supplemental material for this article is available online.

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