Original Article

Factors Affecting Clinical Education Standards in Nursing in Iran: A Systematic Review

Tayebeh Eghbali[1] , Zahra Sarkoohi Jabalbarezi[1], Esmat Nouhi[2*]

[1]Ph.D. Student in Nursing, Nursing Research Center, Kerman University of Medical Sciences, Kerman, Iran
[2]Ph.D. in Nursing, Associate Professor, Nursing Research Center, Kerman University of Medical Sciences, Kerman, Iran

Abstract
Background: Clinical education has long been known as one of the influential ways to improve the quality of nursing services.
Objectives: The present research was conducted aiming to determine the factors affecting clinical education standards in nursing in Iran.
Methods: This study was a systematic review in which published articles related to the factors affecting clinical education standards in nursing in Iran were searched. Based on the research inclusion criteria, 30 articles were selected and the data were analyzed using the content analysis method.
Results: The most important factors affecting clinical education standards in nursing in Iran were categorized into three areas: educational goals and planning, educational structure, and educational process. The most important affecting factors included "the presence of a codified educational program for clinical education and interactions".
Conclusion: The most crucial actions that can be taken to help improve nursing clinical education and elevate its standards include preparing a codified educational program for clinical education, trying to improve interactions in the clinical education environment, and improving instructors' performance and skills to train nursing students.
Keywords: Clinical Education, Standards, Nursing

Background

Clinical education is an integral part of the nursing curriculum in which students synthesize the profession's knowledge, skills, attitudes, values, and philosophies, accounting for about 50% of the nursing curriculum time (1, 2). Clinical education aims to acquire professional skills and set appropriate stage for use at the time of clinical care. At this stage, students experience the clinical setting by learning clinical activities and are guided toward the relationship between theory and practice to solve complex healthcare problems and provide safe care with critical thinking (3). On the other hand, nursing schools are supposed to train nurses who are able to provide clinical services based on the latest scientific advancements and can satisfy the patients' needs with sufficient knowledge and clinical skills (4). Weak planning in this regard will create problems, leading to weak professional skills and decreased efficiency of graduates (5). The nurturing of competent nurses without appropriate clinical education is a far-reaching goal, and the presence of any problem in clinical education compromises its efficiency and effectiveness (4). The results of Torabizadeh et al.'s study indicated a direct and significant correlation between the use of educational behaviors by clinical instructors and the effect of these behaviors on nursing students' learning. In terms of the amount of applying educational behaviors, the areas of teaching ability and personality traits, and in terms of effectiveness and learning, the areas of teaching ability and evaluation achieved the highest and lowest priority, respectively (6). In Shoja et al.'s study, the challenges of clinical education were determined in six main areas: Instructors' insufficient mastery of clinical departments, students' insufficient preparation to enter internship, lack of support from staff for students, lack of a codified educational program for clinical education, lack of a specific model for clinical assessment, and lack of patient cooperation and trust toward the students (7). In the meantime, it seems that there are still some issues

inhibiting students from effective learning because they cannot practically implement what they have learned. Even students who are theoretically well knowledgeable, most of the time face problems at the patient's bedside and are not able to provide care and perform skills independently. Neglecting clinical education will lead nursing students to not perform proficiently in the clinical setting despite having sufficient theoretical knowledge, and by entering the treatment and healthcare system, the quality of service provision will lessen over time. Clinical internships are extremely important in the formation of professional identity and are indeed called the heart of nursing professional education. Nursing clinical education is an integral part of theoretical education and both complement each other. Clinical education is simultaneously different and very complex. The existence of standards for clinical education management and also the evaluation of factors affecting these standards will help narrow the gap between theoretical and clinical education and the nursing students' process of achieving competence and will culminate in nurturing proficient nurses in patient care (8).

Overall, clinical education standards are related to five areas, including clinical instructors, students, educational programs, resources and facilities, and teaching-learning activities (9), which are assessed by internal and external evaluation programs in nursing faculties. However, it should be stated that clinical nursing education in clinical education centers in Iran is not at present at the acceptable level of these standards and is encountering many challenges. Therefore, conducting any research in this field can be a window to the realities or solutions to solve available problems in the future (10).

Objectives

According to the cases mentioned above and the importance of the topic, the current research was conducted aiming to determine the factors affecting clinical education standards in nursing in Iran.

Methods

This study was a systematic review conducted based on the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) statement (11). In line with the research objective, the ProQuest, Magiran, Scientific Information Database (SID), ScienceDirect, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Google Scholar, and PubMed databases were searched and Persian and English articles conducted during the last 15 years (2007-2022) on nursing clinical education and factors affecting its standards in Iran were reviewed. The reason for selecting this period of time for studies was that the researchers sought to collect up-to-date and new information about the factors affecting the standards of clinical nursing education and to investigate a broad spectrum of information, factors, communications, and changes related to the topic. Moreover, the selection of articles from different periods of time can enhance the variety of information in review articles, contributing to a more extensive analysis and a more comprehensive evaluation of the topic. For searching related articles in the databases, appropriate keywords were initially selected from medical subject headings (MeSH), and then a search was performed using the keywords "Clinical nursing education, Nursing student, Clinical nursing education factors, Clinical nursing education problems, Clinical nursing education challenges, and Clinical nursing education standards" in Persian and English using the two operators AND and OR for 20 days from the 21st January to the 9th February 2023.

Based on the Patient, Intervention, Comparison, Outcome (PICO) criteria, the inclusion criteria for the present study include Persian or English language, type of article (descriptive, qualitative, review, and descriptive-analytical), access to the full text, the population under investigation (nursing instructors, nursing students, and nurses), the research subject (direct relationship with clinical education), the place of conducting research (Iran), and the article publication time (2007 to 2022). The exclusion criteria included the article language other than English or Persian, the article type (other than descriptive, qualitative, review, and descriptive-analytical), such as interventional articles, meetings, and letters to the editor, lack of access to the articles' texts, absence of nursing students or graduates in the investigated samples, the lack of relationship between the research topic and the current research's objectives (factors affecting clinical education standards in nursing), such as studies on theoretical education in nursing, conducting research in other countries, and articles published outside the intended time period (2007 to 2022). All searched articles were reviewed by two researchers and any disagreements were reconciled via discussion between them and according to the research objectives.

The article selection process was performed based on the following protocol:

- Searching articles (titles with or without abstract)
- Assessing the relationship between the article's abstract and the study objectives
- Assessing the article's full text and its relationship with the study objectives
- Performing main screening (in terms of the sample size, the study year, the related field of study, the field under investigation, the quality and methodology of the studies obtained by two researchers)

Detailed evaluations were carried out by two researchers independently based on the checklists related to the methodology of each research [the Strengthening the Reporting of Observational Studies in Epidemiology (STORBE) statement for descriptive studies, Consolidated Criteria for Reporting Qualitative research (COREQ) statement for qualitative research, and the PRISMA statement for review studies] and studies that gained less than 80% of the scores of these checklists were excluded from the study. After reviewing the articles, 30 articles were finally entered into the research (Figure 1). The intended data were then extracted from the qualified articles and recorded in Excel software. The data extracted from the articles encompassed the following sections: The authors' names, the study year, the study language, the study type, the study title, the sample size, and the summary of results.

In the current research, the data were analyzed using the content analysis method. Two researchers extracted and classified the results of the articles independently, and the data accuracy was assessed by the process double check by another researcher in the research team. Then, the data collected from the articles were organized in the relevant tables.

Results

The results obtained from various studies on the factors affecting clinical education in nursing in Iran, which also influence clinical education standards in nursing, are summarized in Table 1. It is worth mentioning that the articles used in the present research consisting of 14 English and 16 Persian articles have been arranged according to the publication year and provided in Table 1.

In the present research, the factors affecting clinical education standards in nursing were classified into several primary and secondary areas and based on priority. The three primary areas include educational goals and planning, educational process, and educational structure, each of which has its own secondary areas prioritized in Table 2 according to their repetition and importance in previous studies. In the educational goals and planning area, 9 factors affecting clinical nursing education had been mentioned in the investigated studies, the most important of which include the presence of a codified educational program for clinical education (13 articles), the presence of a specific model for monitoring and evaluation (9 articles), and the university and hospital clinical education coordination (the short practical period before entering the hospital, the longtime interval between the practical period and entering the hospital setting) (9 articles).
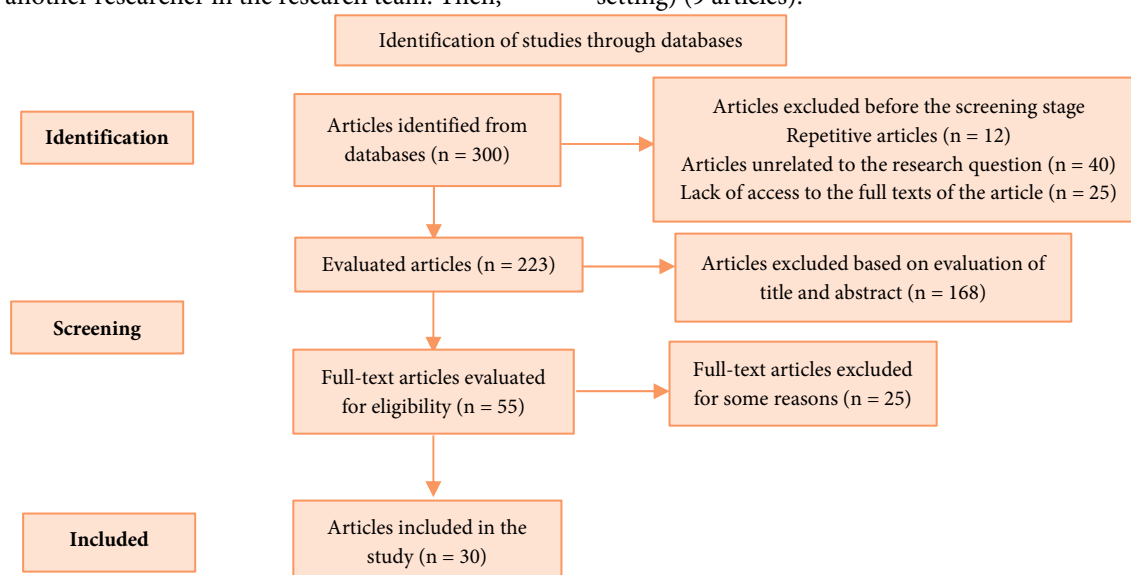
Identification of studies through databases

Identification

Articles identified from databases (n = 300)

Articles excluded before the screening stage
Repetitive articles (n = 12)
Articles unrelated to the research question (n = 40)
Lack of access to the full texts of the article (n = 25)

Evaluated articles (n = 223)

Articles excluded based on evaluation of title and abstract (n = 168)

Screening

Full-text articles evaluated for eligibility (n = 55)

Full-text articles excluded for some reasons (n = 25)

Included

Articles included in the study (n = 30)

Figure 1. The article selection process based on the Preferred Reporting Items for Systematic Reviews and Meta-Analysis checklist

Table 1. Studies on the factors affecting clinical education standards in nursing in Iran

Sources	Language	Study Type	Title	Sample Size	Summary of the Results
Ghodsbin & Shafakhah (12)	Persian	Descriptive	Facilitating and preventing factors in learning clinical skills from the viewpoints of the third-year students of nursing at Fatemeh School of Nursing and Midwifery	54 nursing students	Facilitating factors: Instructors' experiences, providing an appropriate environment by instructors Preventing factors: Stress in the ward, inappropriate atmosphere of the ward, lack of support for students by staff, and hot-tempered and angry staff
Yazdankhah Fard et al. (13)	Persian	Descriptive	The stressful factors in clinical education: the viewpoints of students at Bushehr University of Medical Sciences	334 students in the fields of nursing, midwifery, medicine, and paramedicine	Stressful domains: Humiliating experiences, educational setting, clinical experiences, unpleasant feelings, interpersonal relationship Stressors: Instructor's warning in the presence of staff and doctors, lack of welfare facilities, witnessing critically ill patients' suffering, concern about the transmission of contagious illnesses, instructor's lack of support
Borazpardenjani et al. (14)	Persian	Descriptive	The clinical education status from the perspectives of students at the School of Nursing and Midwifery, Tehran University of Medical Sciences	250 nursing and midwifery students	Strengths: Timely attendance of students and instructors, compliance with courses' prerequisite credits, instructor's good behavior, interested instructors, experienced instructors. Weaknesses: Insufficient facilities, not using educational aids, inappropriate number of students in the ward, inappropriate number of patients for learning cases, disregarding students' opinions in planning, student's inability to make decisions for patient care planning, non-coordination of the ward personnel expectations and educational goals, having no weekly clinical conference
Toulabi et al. (15)	Persian	Descriptive	The appropriateness of educational programs' objectives for professional needs: The viewpoints of Khorramabad School of Nursing and Midwifery graduates	407 nursing and midwifery graduates	The most common elements affecting the quality of educational programs: Experienced instructors, educational facilities, appropriate atmosphere, teaching methods, the faculty's educational facilities, available scientific resources, diagnostic, clinical, and therapeutic facilities, paying attention to students' opinions, the faculty's appropriate atmosphere, rules and regulations
Abotalebi et al. (5)	Persian	Descriptive	Evaluation of clinical education from the viewpoints of nursing students of Ardabil University of Medical Sciences in 2009	90 nursing students	Strengths of clinical education: Timely attendance of students, timely attendance of instructors, presentation of course objectives, availability of instructors, student's information about the way of evaluation, instructors' appropriate behavior Weaknesses: Insufficient welfare facilities, lack of educational aids, non-coordination between educational goals and staff expectations in the wards, non-cooperation of theoretical courses and internships, instructors' inability to relieve students' stress
Pakpour et al. (16)	Persian	Descriptive	Nursing students' understanding of the current status of the clinical education environment at Tehran University of Medical Sciences	217 nursing students	The area of personifying the student in the clinical setting and using educational innovations in students' clinical education had the highest and lowest scores, respectively. Students regarded human relations in the clinical education setting as one of the most important priorities in clinical internships.
Mogharrab et al. (17)	Persian	Descriptive-analytical	Factors affecting clinical education from the viewpoints of clinical nursing students and instructors (2010-2011)	120 nursing students and 28 nursing instructors	Most of the students and instructors evaluated the status of equipment, specialized facilities of the clinical setting, and welfare affairs as excellent. Eighty percent of the students evaluated the performance of the nursing staff as undesirable and 85% of the instructors evaluated it as excellent.

Table 1. Studies on the factors affecting clinical education standards in nursing in Iran (continue)

Sources	Language	Study Type	Title	Sample Size	Summary of the Results
Heidari et al. (18)	Persian	Descriptive-analytical	Problems of clinical education of nursing students in clinical settings	75 nursing students	The most common problems of clinical education: The instructor-related area: Lack of support from the instructors for the students The clinical education learners-related area: Unclear description of the student's duties and expectations The clinical setting-related area: Lack of welfare facilities and education in the clinical wards The educational program-related area: Lack of a codified educational program for clinical education The clinical assessment-related area: Lack of a specific model for clinical assessment The patient-related area: Patient non-cooperation and trust in students
Rasouli et al. (19)	Persian	Descriptive	Investigating the expectations of Urmia nursing and midwifery students from the instructor and perceived stressors during clinical and theoretical education in 2013	210 nursing and midwifery students	Expectations: Demonstrating understanding and empathy by instructors and establishing good relationships with students Stressors: Instructors' harsh warnings during the course, lack of self-confidence regarding implementing care processes, bad behaviors of nurses, doctors, and patients
Rafiee et al. (20)	English	Qualitative	Problems and challenges of nursing students' clinical evaluation: A qualitative study	40 nursing students and 8 instructors	Main themes: Inappropriate method of clinical evaluation, problems of clinical evaluation process, problems related to clinical instructors, inappropriate planning of clinical education, organizational shortcomings
Kermansaravi et al. (21)	English	Qualitative	Nursing students' views of nursing education quality: A qualitative study	40 nursing students	Three main themes: Theoretical education (teaching method, educational content, instructor's characteristics), clinical education (impairments in educational planning and educational environment, and instructor's characteristics), the gap between theoretical education and clinical education (the application of theory in practice, compliance with scientific principles in practice)
Heidari & Norouz Zadeh (22)	English	Qualitative	Nursing students' perspectives on clinical education	150 nursing students	Study results regarding clinical education Educational goals and programs: The highest score was related to the clinical instructor and the lowest score was related to the clinical setting. The goals of clinical education area: The highest score was related to the presentation of students' description of duties and also the goals of clinical education on the first day of education, and the lowest score was related to the coordination between educational goals and staff expectations from students. The clinical instructor area: 53.79% of responses were positive, indicating more agree perspectives regarding clinical instructors and 18.5% had negative perspectives. The interaction with student area: The highest score was related to strengthening students' self-confidence by the instructor and staff, and the lowest score was related to empowering students to make decisions in patient care planning.
Baraz et al. (23)	English	Qualitative	Learning challenges of nursing students in clinical environments: A qualitative study in Iran	18 nursing students	Challenges of clinical learning: Nursing instructors' inadequate competence, non-supportive educational setting, stressful psychosocial environment, traditionalism in clinical performance, no access to direct experience of nursing techniques

Table 1. Studies on the factors affecting clinical education standards in nursing in Iran (continue)

Sources	Language	Study Type	Title	Sample Size	Summary of the Results
Bigdeli et al. (24)	English	Descriptive	Clinical learning environments (actual and expected): Perceptions of Iran University of Medical Sciences nursing students	127 nursing students	The highest mean score difference in actual and preferred form was in innovation and the lowest was in the participation scale
Farzi et al. (25)	Persian	Qualitative	Exploring the challenges facing nursing procedures education from the perspectives of nursing students: A qualitative study	12 nursing students	The 5 main categories included the transition from practice to the clinic, discrepancy between education and performance, fears, the clinical instructor's performance, and inclusive features.
Sharafi et al. (26)	English	Descriptive-analytical	Evaluation of coordinating theoretical education with clinical training in nursing students from the perspective of teachers of Mashhad School of Nursing and Midwifery	90 instructors	The sufficiency of educational facilities in the educational hospitals of Mashhad University was less than average; 93% of nursing educators believed that communication with hospital staff greatly affects their cooperation. The lowest consistency between skills and the duration of clinical education courses was observed in special and emergency wards.
Pakpour et al. (27)	Persian	Descriptive	Nursing students' satisfaction with the clinical education environment at Iran University of Medical Sciences	127 nursing students	The highest mean score in the evaluation of the current status of the clinical education setting belonged to the area of personifying students in the clinical setting and the lowest belonged to the area of using educational innovations in clinical education.
Rezaei (28)	English	Descriptive-analytical	The clinical education quality (a case study from the perspectives of nursing and midwifery students at Islamic Azad University, Falavarjan Branch)	361 nursing and midwifery students	The quality of education in the areas of behaving the students, monitoring and evaluation, educational goals and programs, and instructors' performance at a moderate level. The educational setting area was at a poor level. By increasing the academic semester, the total scores of the scale, and the five areas of the clinical education scale decreased from the students' viewpoints; 33% of students were not satisfied with the assessment method in the internship; 58% of students believed that the number of students is not proportional to the physical space of educational departments; 77% of students believed that medical staff have no favorable cooperation with them during clinical education.
Jamshidi et al. (3)	English	Qualitative	The challenges of nursing students in the clinical learning environment: A qualitative study	17 nursing students and 3 instructors	Three main categories: Inefficient communication, insufficient preparation, emotional reactions
Vali et al. (29)	English	Descriptive	Nursing students' perspectives on effective educational strategies of clinical instructors: A descriptive study	150 nursing and midwifery students	The most effective strategies: Respectful behavior with students, clients, and colleagues, enthusiasm to guide students and manage their problems
Aghaei et al. (30)	Persian	Descriptive	The perspectives of nursing students on the elements affecting bedside education	150 nursing students	The students of all the six investigated faculties in Tehran evaluated the educational goals and programs carefully. Students evaluated the instructor's field as average. The weakness existed in the areas of behaving students, clinical setting, and monitoring and evaluation.
Torabizadeh et al. (6)	Persian	Descriptive-correlational	The relationship between the instructors' clinical education behaviors and the nursing students' learning at Shiraz University of Medical Sciences	128 nursing students	The teaching ability area had the highest and the assessment area had the lowest priority on effectiveness and clinical learning. Teaching ability was mostly influenced by clinical instructors' personality traits and teaching skills (6).

Table 1. Studies on the factors affecting clinical education standards in nursing in Iran (continue)

Sources	Language	Study Type	Title	Sample Size	Summary of the Results
Bazr Afkan & Najafi Kalyani (31)	English	Qualitative	Nursing students' experiences of clinical education: A qualitative study	16 nursing students	From this study, five categories emerged, including disrupted theory and practice, unstable communication, insufficient planning, and personal and professional growth.
Farzi et al. (1)	English	Qualitative	Exploring the challenges of clinical education in nursing and strategies to improve it: A qualitative study	35 nursing students and 5 instructors	Two main categories: Challenges of clinical education in nursing and strategies to improve clinical education in nursing
Jasemi et al. (32)	English	Qualitative	Challenges in the clinical education of the nursing profession in Iran: A qualitative study	9 nursing students, 3 clinical nurses, and 2 instructors	Two main issues: Inefficient educational structure and inefficient professional performance environment
Najafi Kalyani et al. (33)	English	Qualitative	How do nursing students experience the clinical learning environment and respond to their experiences?: A qualitative study	19 nursing students, 4 instructors, and 3 clinical nurses	Problems experienced in the clinical education setting: Inefficient educational context, inefficient instructors, instructors' inability to provide effective education, unfavorable educational planning, incompatibility of educational programs with students' needs and expectations, inappropriate clinical setting
Khedmati Zare et al. (34)	Persian	Descriptive	The clinical education status and factors affecting effective clinical education from the perspectives of undergraduate nursing students at Alborz University of Medical Sciences	155 nursing students	The most effective factors: Inclusive personal traits, clinical instructor's personal traits, clinical setting conditions, educational programming, and clinical assessment
Mortazavi et al. (35)	Persian	Descriptive	Factors affecting the quality of clinical education from the perspective of teachers and learners of Saveh hospitals	198 nursing and paramedical students	The most important effective factors: Improvement of educational processes, results and consequences of improving the educational process, lack of proficient human force, lack of space and facilities and equipment, correct educational evaluation
Rezakhani Moghadam et al. (36)	English	Qualitative	Challenges faced by nursing students to work with nursing personnel: A qualitative study	20 nursing students	Learning challenges: Inappropriate social norms, inappropriate organizational climate, insufficient resources
Shoja et al. (7)	Persian	Review	Challenges of clinical education for Iranian undergraduate nursing students in Iran: A review study	23 articles	Challenges of clinical education: Instructors' inadequate mastery of clinical wards, student's insufficient preparation to enter internship, lack of support from staff for students, lack of a codified educational program for clinical education, lack of a specific model for clinical assessment, patient non-cooperation and trust in students

Table 2. The most important factors affecting clinical education standards in nursing in Iran

Educational Goals and Planning	Educational Structure	Educational Process
The presence of a codified educational program for clinical education The presence of a specific model for monitoring and evaluation The university and hospital clinical education coordination (acquiring required clinical skills in the practical period, the short practical period before entering the hospital, the longtime interval between the practical period and entering the hospital setting) Proportionate number of theoretical and practical credits The presence of a gap between theoretical courses and clinical practice in nursing Presenting course objectives and the way of evaluation to students Paying attention to the students' opinions regarding the educational program Using educational innovations Improving the quality of education	Interactions (the relationship between instructor and student, the relationships of student and instructor with hospital staff) Educational environment and facilities Students' personal traits (fears, attitude, self-confidence, etc.) Applying skilled and experienced instructors Environmental stressors (aggressiveness of the medical staff, patient lack of trust and cooperation with students, presence of companions at the patient's bedside) Commitment and motivation of instructors and students Adequate number of nursing staff and sufficient commitment Proportionate number of students and the clinical setting Students' academic years The existence of rules and regulations in clinical education	Instructor's mastery of educational content and appropriate clinical performance Instructor's respectful behavior with the students Staff cooperation with students Empowering and engaging students in clinical activities Instructor's support for students in the clinical setting Clear description of students' duties Punctuality and timely attendance of instructors and students Instructor's availability Patient collaboration with students Holding clinical conferences Using appropriate teaching methods Attention to patients' rights and needs

In the educational structure area, 10 items were mentioned, the most important of which are interactions (the relationship between instructor and student, the relationships of student and instructor with hospital staff) (14 articles), educational environment and facilities (13 articles), and students' personal traits (attitude, fear, and self-confidence) (10 articles). Furthermore, the educational process area included 12 related factors affecting clinical education in nursing, the most important of which are the instructor's mastery of educational content and appropriate clinical practice (9 articles) and the instructor's respectful behavior toward students (9 articles).

Discussion

The present systematic review was conducted aiming to determine the factors affecting clinical education standards in nursing in Iran, and the factors affecting clinical education standards in nursing were divided into three general areas: Educational goals and planning, educational structure, and educational process. The most important cases in the educational goals and planning area were the presence of a codified educational program for clinical education, the presence of a specific model for monitoring and evaluation, and university and hospital clinical education coordination. In the educational structure area, the most important affecting factors included interactions (the relationship between instructor and student, the relationships of

student and instructor with hospital staff) and educational environment and facilities. In the educational process area, the instructors' mastery of the educational content and appropriate clinical practice and the instructor's respectful behavior toward students are among the most essential factors affecting clinical education standards in nursing.

In the current research, the most crucial factor in the educational goals and planning area was related to the presence of a codified educational program for clinical education. Educational planning programs and methods affect the clinical education manner and depth and the staff under training and help the clinical education development and progress process (37). In Delaram's study, educational goals and programs were also among the most crucial strengths of clinical education (38). Since clinical education is practice-based, it requires precise and coherent educational planning to provide students with the opportunity to develop clinical skills. Hence, clinical education will fail without precise and correct planning (37).

The presence of a specific model for monitoring and evaluation was another important affecting factor in the educational goals and planning area. Some of the clinical evaluation challenges include the non-uniformity of the assessment process, not applying modern assessment systems, impairments in objective assessment, and instability of the used tools (39). Conducting an assessment impacts motivation and it can particularly

affect the learners' willingness to accept responsibility for learning, independent progress, and display constant motivation in learning (40). Thus, assessment is the main factor in achieving the final goal that an individual seeks by performing a task (41).

Coordination between university clinical education and hospital clinical education is also one of the significant factors affecting clinical education standards in nursing in Iran. One of the chief missions of the nursing faculty is nurturing proficient and efficient human resources. Before entering the real clinical setting, nursing students must have received the required and sufficient education in the faculty and have been assessed appropriately (25). Previous studies also regarded the appropriateness of the educational setting regarding required facilities and equipment, enough time and opportunity to repeat clinical skills, and the presence of a rational time interval between learning the clinical skills in the practical and clinical setting as essential for effective clinical education (25, 42, 43).

Other important factors affecting clinical education standards in nursing in Iran include the relationship between instructor and student and also the relationships of student and instructor with hospital staff. In Jahanpour et al.'s research, the instructors' interpersonal relationships were also mentioned as a chief theme affecting clinical education (44). Furthermore, in Moridi and Khaledi's study, the most important factor facilitating learning clinical skills among students in the field internship was the relationship between instructor and student (45). In this regard, it can be stated that benefitting from capable instructors with high communication skills is helpful in order to enhance students' motivation and interest in clinical education and resolve existing challenges (32). Training communication skills to students with an emphasis on the difference between the classroom and the clinical setting can also be very beneficial (7).

Another affecting factor is the importance of the clinical education environment and facilities, which has been mentioned in numerous studies. Some studies report students' dissatisfaction with educational facilities. One of the most important clinical education problems reported in the studies conducted by Aboutalebi et al. (5) and Rezakhani Moghadam et al. (36) is the shortage of welfare and educational facilities for students. The presence of appropriate space and required facilities to implement care procedures, as well as physical and environmental security, is one of the significant and influential prerequisites in clinical

education, which should be provided by educational institutions based on the existing standards. The conducted studies also indicate that special attention should be paid to equipment and facilities (46).

In the present research, the most important factors affecting clinical education standards in nursing in the educational process area are related to the educational instructors' traits. A nursing instructor is the most important factor and role model in learning and can play a vital role in training students by recognizing his/her profession carefully, leading to fostering students' self-confidence and self-esteem (47). Improving the performance of clinical instructors requires equalizing the teaching principles with the learning principles. It is worth mentioning that since students are always dissatisfied with the low quality of the teaching process, emphasis must be placed on the importance of education, high quality of new instructors' performance, instructors' continuous professional growth, careful evaluation of instructors' teaching, and the adoption of managers who change management strategies effectively (48). In addition, the instructors' inappropriate behavior can lead to reducing students' self-confidence and motivation (49). Given the cases mentioned above, educational planners need to pay attention to the clinical instructors' educational role, increasing the number of consultants to monitor the activities of instructors and students, and also enhancing instructors' motivation to provide more effective clinical education in order to promote the quality of clinical education.

Limitations: One of the limitations of the current study was that the factors affecting clinical education standards in nursing were examined only from the perspectives of nursing students and clinical instructors. Moreover, due to the lack of access to the full texts of some articles, some factors affecting clinical education standards in nursing may not have been evaluated in this research.

Conclusion

According to the results of the present research, it can be stated that the key actions to help improve nursing clinical education and its standards encompass preparing a codified educational program for clinical education and improving instructors' performance and skills for training nursing students. Also, the presence of a specific model for monitoring and evaluating students and the use of a modern assessment system by instructors can have considerable effects on improving nursing students' learning. Furthermore, trying to find

strategies to elevate cooperation and improve interactions between nursing staff and nursing students and providing an appropriate learning environment can culminate in increasing nursing students' motivation and improving clinical education standards in nursing.

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