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Review Article

A narrative review of patient education in emergency departments: challenges and solutions

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Abstract

Patient education in emergency departments faces complexities and challenges due to the wide variety of clinical care provided in this setting. Despite widespread recognition of the value and benefits of education, we frequently see that patient education in hospital emergency departments is less than optimal and that emergency departments are not employed as venues conducive to providing suitable and effective patient education. This study was conducted to ascertain the issues associated with patient education in emergency departments and the most relevant solutions. In this narrative review, the data were collected by searching the keywords patient education, emergency department, emergency medical services, health education, challenges of patient education, the importance of patient education, and barriers to patient education in Persian and English both separately and in combination using Boolean operators. The databases comprised Sid, Iranmedex, Magiran, Pubmed, Elsevier, Medlin, and Scopus, as well as the Google Scholar search engine. Sixty-five full-text articles were included in the study based on inclusion and exclusion criteria. Results from the review of articles revealed that hospital emergency departments face challenges in educating patients, including environmental factors (overcrowding, lack of time), patients' low health literacy levels, communication skills, nurses'attitudes, and interest in patient education, and nurses' scientific knowledge. To revive and enhance patient education, nursing managers and emergency department nurses should work proportionately to the current challenges by developing novel, innovative approaches or implementing appropriate practical solutions that will drastically alter how this critical issue is carried out in hospital emergency departments.

Keywords: Patient Education, Emergency Department, Nurses

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Introduction

Emergency departments (EDs) play a vital role in disease management and care provision for acute injuries. Indeed, they are highly important due to their significant impact on the health system (1-2). However, EDs have become increasingly crowded due to rising demand and extensive, complex, and diverse care (1). Nurses in these departments are involved in patient care, which often has to be performed instantly. This has led to less time spent educating the patients (3). Accordingly, EDs face challenges due to overcrowding and the chaotic nature of the activities, leading to reduced patient satisfaction (4-5). Patient education in EDs is widely recognized as difficult due to the unique and unpredictable clinical setting and diverse patient population (6). In practice, EDs' packed and noisy atmosphere presents particular hurdles to patient education (7-8).

The extant scientific literature identifies the major concerns about patient education in EDs to be specifically related to nurses communication skills, educational materials, and presentation of insufficient information. This is complicated by the fact that the educational content delivered to patients is sometimes above their levels of literacy and understanding (6-10). Notably, patient education is still a key factor in maintaining patient care, promoting patient health, and meeting the expectations of patients and society. However, it is often overlooked or not done well (3, 6, 11). According to the results of studies, the conditions of patient education in EDs are often less than optimal, and EDs are not used as environments for providing education to patients. On the one hand, most patients in these wards have a low level of education and are confined to basic forms, information, and medical prescriptions and do not go beyond (3, 7, 8, 12).

On the other hand, patients often do not follow their discharge instructions owing to improper or inadequate training. They are at risk of side effects and increased use of resources, including frequent readmission to the ED and hospitalization. Returning a patient owing to insufficient education may signal a waste of time and energy invested during the prior hospitalization and may occasionally result in increased medical expenditures, for which the nurse is accountable (13-16). Therefore, educating ED patients is highly important and peculiar considering the patients' critical condition, which, if well considered, can affect patient satisfaction, promote patient self-care, and improve community health (6, 17).

Indeed, despite the great emphasis on implementing patient education programs, patient education is often done informally along with nursing care provision or in response to specific circumstances. Therefore, what is certain is that important and necessary information does not reach patients continuously and completely (15,18-20). While most nurses consider it one of their primary responsibilities in patient care, patient education is less prioritized, particularly in EDs. Indeed, it is inadequately practiced compared to other nursing duties such as medication administration, nursing care, and information documentation(21-22). Consequently, this study was undertaken to determine the issues associated with patient education in EDs and the most relevant solutions.

Methods

The present study is a narrative review article. The data were collected by searching the keywords patient education, ED, emergency medical services, health education, challenges of patient education, the importance of patient education, and barriers to patient education in Persian and English both separately and in combination using Boolean operators (AND, OR). The databases comprised Sid, Iranmedex, Magiran, Pubmed, Elsevier, Medlin, and Scopus, as well as the Google Scholar search engine. The ultimate number of full-text records included in the study based on inclusion and exclusion criteria amounted to 65.

Searching was performed from 23 October 2021 to 12 January 2022. Articles with accessible full texts in Persian and English were included in the study, and 65 relevant articles between 2000 and

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2022 were extracted and reviewed. Inclusion criteria were research articles, reviews, and dissertations related to the research aim, time of publication from January 2000 to January 2022, and access to the full text of the record. Records whose full texts were not available, those unrelated to the research purpose, the ones published outside the intended period, and those published in other languages (except for English and Persian) were excluded. Out of 350 records obtained from the databases, 100 were removed due to duplication, leaving 250 to the screening stage of titles, abstracts, and aims. After the titles and abstracts were reviewed by two researchers, 155 unrelated records were excluded. In the next step, full-text articles were reviewed based on inclusion and exclusion criteria. Ultimately, 65 studies (63 papers and two dissertations) were included in the present study (Figure 1).

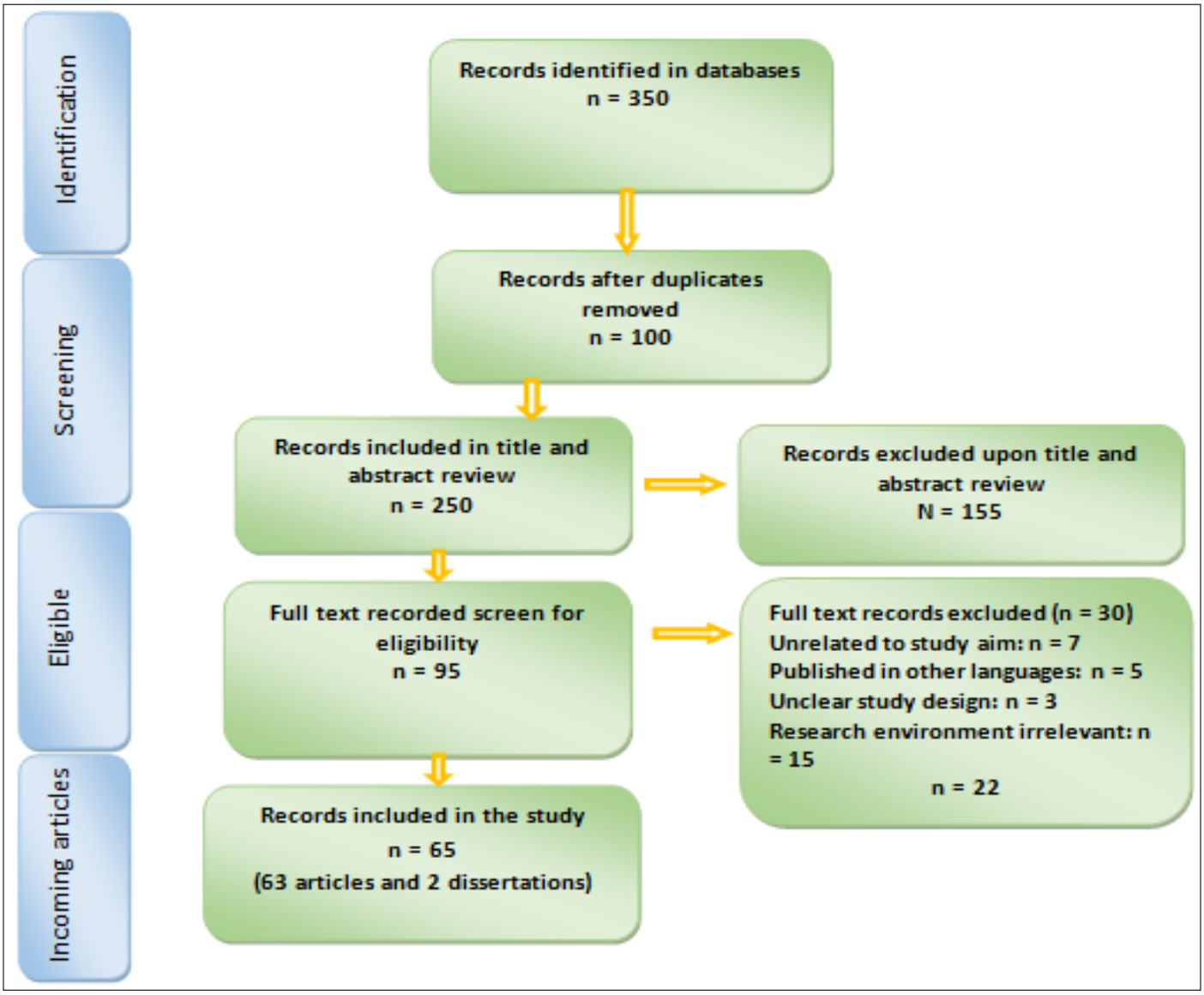


Figure 1. The process of reviewing and selecting research articles based on the PRISMA flow diagram

Results

Based on the results of numerous studies, patient education in EDsis faced with challenges for the following reasons:

1. Environmental challenges, 2. Level of medical literacy (health) of patients, 3. Communication skills, 4. Attitude and motivation of the nurse, and 5. Scientific and specialized knowledge of nurses (Table 1). In this section, each challenge is presented and is followed by the solutions proposed in the literature for managing the respective challenge.

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Table 1. Challenges of patient education in emergency departments

Challenging areas	Factors	References
Environmental	Congestion and crowdedness of the emergency department	1, 4, 26, 27, 48, 49
	Limited time and high workload as limiting factors for patient education	3, 4, 24, 25, 26, 48, 49
	Limited educational space and resources	24-26
	Environmental stress	23-28
Patients' health literacy	Educational content being disproportionate to the patients' level of literacy	3, 26, 40, 41
	Failure of the written educational content to respond to patients' needs	7, 10, 21, 26, 40, 41
	Limited medical literacy of patients	42
	Lack of understanding of educational content	4, 7, 25, 41, 43, 44
Communication skills	Ineffective and inefficient communication	15, 40, 46, 47, 48, 49, 55
	Specialized jargon used in speech	9, 54
	Diversity of cultures, languages, and dialects	53
Attitudes of nurses	Nurses' attitudes and beliefs about the effectiveness of patient education	30, 58, 59
	Nurses' lack of motivation and interest	4, 17, 30, 57, 58
	Nurses' underestimation of the importance of patient education	3
Nurses' scientific knowledge	Insufficient scientific information	6, 11, 18, 38, 52, 61
	Lack of expertise and insufficient experience	8, 29, 60
	Insufficient knowledge of nurses about patients' educational needs and appropriate educational methods	36, 44, 52
	Fear of delivering wrong or incomplete information	61
	Lack of specialized nursing staff to educate patients	24, 38, 39

1. Environmental challenges, including the crowded environment and limited time and resources

Results from Afaya et al.'s study in 2021 revealed that the crowded nature of EDs is an important challenge in patient education and that nurses' fatigue often accompanies care provision. Given the insufficiency of nursing staff, the large number of patients, and stressful work environments, nurses cannot provide specialized training well, which affects the quality of emergency care (23). In 2018, Atakro et al. reviewed the experiences of ED nurses, finding that the challenges of resources such as lack of space and insufficient nursing staff endanger the quality of emergency care and training. In this qualitative study conducted with 20 nurses from Ghana emergency centers, participants stated that patients in the ED sometimes did not receive quality services due to crowdedness and that they often felt that they did not take the best care of patients because of minimal contact with patients (24). The time allotted to educate patients is certainly a vital issue that contrasts with the shortage of human force and the increasing workload on emergency nurses. In addition, lack of time has an adverse effect on nurses' ability to provide appropriate patient education in the ED (3, 4). Despite significant changes in patients' expectations and demands for medical care, the amount of time allocated and resources available to prepare patients and their families before discharge

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has not changed significantly with these new demands (25). Thus, congestion, limited time, and limited resources make adequate and appropriate training in the ED impossible or limited (26).

Proposed solutions in the literature: As mentioned above, several parameters have challenged the patient education process in EDs. For instance, EDsare crowded due to the complexity of care and the variety of patients (1). This congestion and time constraints in the ED jeopardize patient care and patient education (26-27).

In his study, Devinney concluded that even with limited time in the ED, nurses should speak to patients with every possible interaction from triage to discharge and give the patients the required training. This requires nurses to become familiar with various teaching methods and techniques that require a short time, similar to the techniques used in the "60 Seconds" book series. By elevating nursing education and nurses' experiences, nurses should be prepared to overcome the time limit in the ED and teach the patient at short intervals of one to two minutes (3). In addition, according to the study by Gozdzialski et al. (2012), the environment in which education takes place should be considered an important factor in patient education. The place where the training is provided should be quiet, peaceful, and silent. The noisy and crowded ED environment is not a good setting for training (4). Recognizing the shortcomings of the environment and taking some simple steps to reduce environmental stress for patients and families can help ensure the success of a training session (28).

In the next step, the desire of patients and their families to receive educational content should be considered at the time of training. Patients or their families have had a difficult experience and may simply not have the will to focus on what is being offered under the circumstances. Therefore, nurses should consider the limited time and the desire and interest of patients to set an appropriate schedule for educating patients according to their condition (4). Lewis et al. (2015) reported that despite the challenges mentioned in educating patients in the ED, outcomes were improved via self-management training programs for patients with chronic and complex medical conditions, including asthma and heart failure. The approach of these interactive learning programs is learner-centered and focuses on the learner's needs, skills, and interests. These training programs are personalized so that they are best suited to the learner and comply with patient education guidelines that cite individual approaches as a key to successful training programs (29). Pétré et al. (2020) also noted in their study that despite the limitations of the ED (especially crowdedness and unpredictable workload), this department should be considered a suitable place to educate the patient and increase patient satisfaction. To this end, patients' participation in their health care and education should be reinforced, and long-awaited situations such as receiving test results and other paraclinical procedures should be given an opportunity for training under the heading of "possible education moments"(31).

Much of the literature focuses on teachable moments in crowded clinical centers so that health care providers can use these moments through targeted interventions (32-35). Given the increase in nurses' workload and the tasks assigned to clinical nurses, other researchers have suggested that employing specialized nurses for patient education can be facilitating (3, 36, 37). Based on the results of their study, Vahedian Azimi et al. concluded that the most important obstacle to patient education is the lack of specialized nurses for patient education (38). Amidst the turmoil of staff shift changes, clinically qualified nurses with training and counseling skills can address the problems of ongoing patient care. These nurses often establish long-term relationships with patients and family members and provide special training to patients and their families (28, 39).

2. Patient health literacy and education content

In many different studies, it has been found that patients' level of health literacy does not correspond to the instructions provided, which is one of the common barriers to educating patients in the ED. Most of the written educational instructions do not meet each patient's specific needs. They are

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often delivered hastily so that some patients fail to understand the educational and discharge content (7, 10, 21, 26, 40, 41). The study results by Herndon et al. (2011) revealed that a significant proportion of ED patients have limited medical literacy, and the educational content of the ED is typically very complex for these patients. As a result, these patients use the ED more often and incur higher costs (42). Understanding discharge guidelines affects the patients' health and the healthcare system because patients' low perception resulting from inadequate education puts them at greater risk for side effects and increases the likelihood of readmission (25, 41, 43).

Proposed solutions in the literature: Patients' ability to understand and implement educational materials and hospital discharge instructions is highly important for their recovery. Suppose patients do not clearly understand the information and content provided during the training. In that case, they will most likely not follow the recommended instructions, such as using prescription drugs correctly or following the treatment and medication regimen (4, 7, 44).

Indeed, patients feel empowered when they have the right knowledge, skills, and self-awareness to influence their health behavior (4). Zavala et al. (2011) found that even educated people are often confused about post-discharge care. Many of these patients will experience new or ongoing symptoms and do not know when to seek additional care. Therefore, follow-up telephone calls are useful in delivering care, meeting learning needs, and providing an opportunity for patients to receive the essential training tips in an environment outside a crowded emergency environment (7).

The Internet and mobile devices also provided a new opportunity to learn more about the patient education process. Using images, animations, and full web-based video content can make educational content more understandable and appropriate for patients with lower health literacy (26). In this regard, Joshi et al. (2007) reviewed a pilot study evaluating computer self-initiation training for 69 children with acute asthma in the ED for six months. They designed an interactive computer-aided learning program based on learning theories to teach children about asthma and its management. Results from the study showed a significant improvement in asthma awareness. They concluded that computer training programs are a very acceptable and effective way to provide patient education in the emergency environment (45). In addition, continuous efforts should be made to provide patients with better access to educational content, especially for illiterate patients or those with low literacy skills. One of the solutions is to review and translate the content into simple language, use colloquial words, and avoid specialized foreign words to facilitate patients' understanding (42).

3. Lack of skills and ability to communicate effectively

Most patients tend to be informed about their care and treatment process. Meanwhile, communication skills as a vital element in the patient's interaction with health care providers are obvious and prominent. In EDs, as in other hospital wards, communication is recognized as a key factor in patient satisfaction (15, 40). Most of the patient's complaints and incorrect application of medical instructions are not the result of nurses' incompetence but arise from communication problems (15, 40, 46, 47). This is because effective communication in a high-risk and fast-paced ED environment is fraught with challenges due to the focus on rapid identification and response to imminent life threats of patients, lack of prior familiarity with patients, and short-term treatment of patients. In addition, stresses such as congestion and limited time complicate effective communication between the patient and the ED healthcare team (48, 49). According to the results of Engel et al. (2012), verbal exchanges between patients and medical providers in EDs are often very short and incomplete, and most patients, as a result of dysfunctional communication, leave EDs without acquiring the necessary knowledge or incomplete understanding of instructions regarding how to care at home (15). Various studies have pointed to cultural, linguistic, and dialectal differences as one of the reasons for the lack of explicit and effective

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patient-nurse communication (50-53). Other studies have suggested that a lack of understanding of medical terms or incorrect medical terms when speaking are communication disrupters (9, 54).

Suggested solutions in the studies: As mentioned, lack of effective communication, nurses' attitude, and insufficient knowledge and information are other factors that inhibit patient education. Patient education is based on full understanding between nurses and patients. This understanding is based on effective communication between the provider and the patient. Therefore, many training providers need to learn communication skills (54). In Kashani et al.'s study (2015), the importance of active listening and verbal communication combined with techniques of encouraging the basic skills has been enumerated as effective communication during patient education. The study's results also showed that most nurses had little knowledge about feedback techniques and principles of interpersonal skills; moreover, nurses' information about communication skills to educate patients was not desirable. Therefore, it is imperative to improve nurses' communication skills to enhance patient education by holding practical communication skills workshops (19). Heaven et al.'s study (2006) indicated that many nurses are familiar with communication skills but cannot use them in practice (55). Clearly, good communication is achieved when nurses apply the skills in practice rather than simply learn them theoretically (56).

In addition, nurses will usually have patients from different cultures and dialects. To communicate properly with these patients, nurses need to become more familiar with their different cultures and customs and accept the patient as s/he is (53). To gain cultural insight, the nurse must set aside personal biases and obtain key information about the patient's cultural norms and health beliefs through careful observation and respectful family evaluation. It is also helpful to consult a family member or friend who can translate the information for the patient and continue to care for the patient after discharge (28).

4. Attitudes and interests of nurses

Educating the patient as a highly-skilled professional activity requires high motivation (57). It is important that emergency room nurses, in addition to promoting health and educating patients, also have an emotional and attitudinal belief in the effectiveness of education and understand that what they offer is certainly effective (58). Understanding the importance of patient education is the most important factor in determining nurses' attitudes toward ED education. Suppose the nurse does not sense the usefulness of patient education and does not believe it is effective in indirect patient care measures. In that case, it is likely that s/he will not place substantial emphasis on these measures and will not allocate sufficient time to educate patients (3). According to the available evidence, many emergency care providers believe that the ED is not a good place for counseling and training and miss out on opportunities and moments to provide training (30, 59). Results from Dehmardeh et al.'s study in 2015 also indicate that one of the reasons for not educating patients in the ED is the lack of motivation of nurses to educate (17). Taggart's (2008) study of 223 ED nurses in Canada also demonstrated that 40% of participating nurses considered personal disinterest a barrier to patient education, which is directly related to nurses' attitudes (58). Therefore, although having the necessary knowledge and understanding of the disease is essential for the nurse, it is not enough without motivation and support. It is because the presence of motivational symptoms in the educator will certainly create an important motivation to change the patient's health behavior (4, 30).

Suggested solutions in the literature: Most nurses need to receive positive feedback from managers about their performance. Gratitude is the strongest, simplest, and least costly contributor to encouraging and creating a sense of satisfaction in people, which leads to self-fulfillment and progress in the work of nurses. Participation in decision-making, independence, and authority are also other vital components of nurses' motivation in the workplace. In addition, welfare and material factors are very effective in the lives of the personnel and their families and can encourage and motivate employees to do better and more work. Wage-workload proportion

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and the existence of legal benefits, including merit pay, are also motivating factors for nurses. Besides, paying attention to educating nurses, increasing nurses' awareness through feasible and practical training courses, presenting appropriate educational books and videos, or introducing reputable educational sites on the application of practical training methods are among other contributors to nurses' motivation(57). Therefore, nursing officials should consider the factors affecting the motivation of nurses and design appropriate programs as per these parameters.

5. Insufficient knowledge of emergency nurses

Several studies indicate that ED staff may not have the expertise to provide patient education for a wide range of diseases (8, 29). Results from Bayrami et al.'s (2017) study revealed that using the novice and inexperienced short-term and contract-based workforces in the ED or a place to discipline or reprimand staff is one of the challenges the emergency nursing staff faces. Given its setting and function, the EDrequires capable and competent nurses (60). According to some research results, insufficient skills and knowledge of nurses about diseases are one of the most important factors preventing patient education (18, 52). Insufficient information and inadequate knowledge of nurses as trainers and educators significantly affect their care and educational performance (6, 11, 61). This is important because nurses who have little information and knowledge, for fear of giving imperfect information to patients, ignore patient education or give incomplete and wrong information to patients, which may lead to re-hospitalization of patients, non-follow-up of diet and medication, recurrence of symptoms, development of complications, and other problems for patients (61). In this regard, Borhani proposes the insufficiency of nurses' knowledge of patients' educational needs and the appropriate education methods as one of the most critical obstacles in patient education (44). In Vahedian Azimi et al.'s study and Ramezanali and Badiyepeymaie Jahromi's research, the insufficiency of nurses' knowledge and information about the care of various diseases was the prominent obstacle to patient education (18, 38). However, in the studies by Mansour Ghanaei et al. (2011) and Saeidpour et al. (2014), the inability of the educator to design and implement an educational program tailored to the educational needs, education level, and cultural background of patients was mentioned as the most fundamental obstacle for nurses in patient education (36, 52).

Solutions suggested in the literature: Nurses' insufficient scientific vigor and knowledge can be directly attributed to the education delivered in colleges. Colleges have a critical role in the patient education process.They can reduce the gap between theory and practice in the clinical environment and provide the ground for this type of care in the clinic (38). In general, nursing education is fundamental to increasing knowledge, changing the attitude of nurses, and improving the quality of nursing care (61). Improving the quality of nursing education requires continuous review of the status quo, identifying strengths, correcting weaknesses, and training nurses in accordance with the culture of the workplace.

Moreover, employing trainers with scientific and clinical competence in educational planning is considered one of the most important strategies for empowering nurses in patient education (62). On the other hand, using appropriate teaching methods is also highly important, and teachers should use various teaching methods per educational goals (63). Traditional teaching methods are not suitable for developing mental skills at higher levels of learning such as application and analysis, and their effect on developing thinking or changing attitudes is less than other methods. However, education focuses more on the student in modern educational approaches, and thus, learning is higher. Therefore, using modern educational methods as alternative methods seems necessary (63-65). Overall, the more extensive the scientific and academic knowledge of nurses, the more successful they are in educating the patient. Thus, providing practical approaches to patient education by nursing educators based on the different needs of patients and in line with new developments in patient education increases the knowledge and skills

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of nursing students, leading to better performance in the future (18). On the other hand, the knowledge of nursing officials who are knowledgeable of the educational needs of nurses should direct attention to educational programs and provide in-service and virtual programs for nurses (57).

Conclusion

Unfortunately, the complexity of the ED environment (especially the congested setting and unpredictable workloads) is a major challenge for effective patient education. Therefore, hospital officials and nursing managers should improve the patient education program in these departments by providing sufficient experienced human force in various EDs, reducing nurses' workloads, and providing continuous training programs. Authorities should also utilize innovative approaches and procedures in EDs by adopting innovative approaches and methods and electronic patient education programs. The complexity of patient education in emergency clinical care requires the creative use of nursing resources and the careful evaluation of the skills and teaching methods currently used by nurses. Offering in-service programs on effective and innovative practical strategies for educating children, adults, and the elderly, developing easy-to-use educational content, and standardizing educational content provided to patients and families are only a few examples of creative methods that can help the nurse provide better education to patients. Moreover, forming a patient education committee guided by a group of specialized and experienced nurses dedicated to patient education in hospitals is another effective way to improve patient education outcomes in EDs.

Although articles with acceptable inclusion criteria and quality were identified and reviewed, some paper-based reports or unpublished studies (gray literature) may have been lost. As another limitation, the present study only reviewed articles published in Persian or English. Due to language limitations, there may be studies published in other languages that have not been included in the present study.

Conflict of interest

The authors of this study do not have any conflicts of interest to disclose.

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