

CHAPTER 1

Current Approaches in Clinical Practice in Nursing Education

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Introduction

Today's age of rapidly advancing new technologies has led to different types of professions and changes in production and consumption resources. Socially, individuals' perspectives on life and expectations are also changing, leading to intergenerational differences (Bell, 2013; Kuyucu, 2017). Nursing candidates preparing for working life today and currently employed nurses are referred to as X, Y, and Z young generations (Isik et al., 2018; Karasu et al., 2017). Accordingly, some nurses from the X generation have retired, while some others are experienced nurses or educators working in clinical settings. Nursing academics are also training Y and Z generation nursing candidates. In this context, especially considering the Y and Z generations, who are closely intertwined with technology, nursing education should make use of technology by benefiting from simulation training and haptic systems and should improve in line with the characteristics of our modern era by using technological systems in work environments (Bell, 2013).

Nursing education continues throughout life, not only in formal education processes where theoretical and practical education is provided in coordination (Flott & Linden, 2016; Senyuva, 2013b). Based on evidence-based practices, nursing students are expected to graduate by using the necessary knowledge and skills in order to provide safe and quality treatment and care. They are also expected to develop critical thinking skills in order to give fast and most accurate reflexive responses in various health situations (Flott & Linden, 2016). However, despite the fact that nursing profession can be executed with strong knowledge and skills, several studies have found that nursing graduates are unprepared for professional life due to their lack of critical thinking and leadership skills (Durmus Iskender & Karadag, 2015; Flott & Linden, 2016).

To train more prepared and confident nursing candidates for professional life, we should be aware of the problems encountered during clinical education, an indispensable part of nursing education, and prevent their negative effects on clinical learning process (Elcigil & Sari, 2011; Moscaritolo, 2009). Nursing graduates without proper competence and sufficiency leave clinical fields after a few years due to stress and burnout, in a way bringing the global nursing shortage along with them (Holdren et al., 2015).

Study Purpose and Problem

In addition to theoretical education, the application of current approaches in clinical education is very important for developing positive attitudes and behaviors in nursing students/nurses. When organizing, planning, and creating the content of nursing education, it is necessary to update both theoretical and clinical education models according to evolving and changing human profile and current conditions. For this purpose, this study examines the examples of current approaches in clinical education such as Simulation, Standardized Patient Model, Web-Based Education and Training, Distance Education, E-Learning and M-Learning, Video-Supported Education, Educational Games, Peer Coaching, Reflection, and Concept Mapping Model.

Simulation in Nursing Education

Increased number of nursing students, several limitations in nursing education such as inadequate number and quality of educators/clinical settings, and the growing awareness of patients about safety concerns have restricted opportunities for nursing students to perform their medical skills, communicate with physicians, work with multidisciplinary teams, and use critical thinking skills (Richardson & Claman, 2014). Along with many other obstacles, this situation has made it increasingly difficult to provide clinical experience to students, prompting educators to consider and use alternative methods such as simulation. The National Council of State Boards of Nursing suggests that simulation includes screen-based/computer-based simulation, virtual patients, partial task trainers, human patient simulators, and standardized patients (Mason Barber & Schuessler, 2018).

Simulation training provides students with experiential learning opportunities, increases their confidence, develops their clinical decision-making skills, and improves the quality of care. In this type of education, students can apply care practices in a safe environment where they can develop technical skills, decision-making, assessment, teamwork, and management skills without fear of misunderstanding the current situation or fear of failure (Goris et al., 2014). However, there are disadvantages such as the development of anxiety in students using this new method, the increased time and workload required for simulation education, the cost of providing a suitable laboratory environment for health education institutions, and the need for regular maintenance and inspection of simulation models (Midik & Kartal, 2010; Sanford, 2010). The advantages and disadvantages of simulators can vary depending on the complexity and technological features of the simulators used. Some low, medium, and high-spec simulators commonly used in health education are shown in Table 1.

Table 1
Simulators Used in Health Education

Low spec simulators	Partial task trainers
	Static mannequins
Medium spec simulators	Complex partial task trainers
	Computer-based simulations
	Virtual reality
High spec simulators	Patient simulators
	Standardized patients

Source: (Datta et al., 2012; Durmaz Edeer & Sarikaya, 2015; Krishnan et al., 2017; Midik & Kartal, 2010; Sezer & Orgun, 2017)

Khalaila (2014) supported the information presented above, stating that the use of simulation as a learning strategy is useful and effective for nursing students before and during their first clinical practice. However, the author has emphasized that students' anxiety levels are high during their first clinical practice, therefore there is a need for a simulation program to be designed to reduce anxiety levels in nursing students (Khalaila, 2014). Similarly, Eyikara and Baykara (2018) reported that first-year nursing students who received simulation training had better vital sign learning skills and higher success rates, and suggested that simulation has a positive effect on nursing students' ability to measure vital signs (Eyikara & Gocmen Baykara, 2018). Another study found that satisfaction with education using highly realistic simulators was significantly lower compared to education using standardized patients, and this was attributed to the students' perception of reality (Luctkar-Flude et al., 2012).

In their literature review, Sari and Erdem (2017) examined several studies comparing high-fidelity simulators (HFS) with other educational methods (low and medium-fidelity simulation, traditional education) in terms of various characteristics, and reported that both methods resulted in increased knowledge scores, but in studies comparing anxiety levels, students who received HFS training had lower anxiety levels. They attributed this result to the opportunity for students to develop their skills in the most realistic environment before going to the clinic, without fear of harming the patient. The authors also found that HFS did not show a significant difference compared to standardized patient and virtual clinical simulation methods, and explained this by the fact that both standardized patient and virtual clinical simulation methods include a higher realistic medical environment (Sari & Erdem, 2017).

Standardized Patient Model

A standardized patient model with case study approach is a highly effective technique in obtaining desired outputs from clinical experiences. During the case review process, nursing students are able to observe the patient's health condition, identify unexpected changes that may occur over time, and allow for the individual-focused revision of nursing care plan through re-evaluating the patient in later stages. The scenarios presented in this practice create an environment for nursing students to measure their critical thinking skills, diagnostic reasoning, and clinical judgments, while providing them with suitable opportunities for demonstrating their clinical skills through direct observation, communication, and psychological assessments during the process of obtaining patient history, conducting physical examinations, and evaluating patient's psychological state

(Marion et al., 2018; Mason Barber & Schuessler, 2018).

Effective communication skills are essential for healthcare professionals within the healthcare system (Lin et al., 2013). Nurses, whose primary focus is on human beings, should evaluate individuals with a holistic approach throughout their interpersonal communication and interaction processes, and develop a foresight for their emotional and mental state. Therefore, it is important for nursing students to acquire these competencies (Jacobs & Van Jaarsveldt, 2016). Poor communication between patients and healthcare providers can lead to increased complaints and claims of mistreatment. The immediate feedback provided by the standardized patient model plays an important role for nursing students to develop interpersonal communication skills (Lin et al., 2013).

WEB-Based Education and Training

The inadequacy of traditional methods used in the education process and the desire to benefit from the developments in the field of communication and technology and to provide a quality education have revealed distance education models. By using tools such as video, graphics, and multimedia technology, web-based education and training methods provide the opportunity to deliver education to students outside of school (Akman & Guler, 2008; Bahar, 2015). Web-based education largely leaves the responsibility of meeting educational needs of individuals, who have diverse sociodemographic characteristics and disrupted educational processes due to geographical conditions, to themselves, and helps them develop decision-making and problem-solving skills (Senyuva, 2017). To ensure the quality of nursing education methods in web-based learning environments, both theoretical and practical education should be provided using a learner-centered approach, as the roles of students and teachers change (Boz-Yuksekdag, 2015).

Uluyol and Guyer (2014) reported a significant increase in critical thinking skills after nursing students participated in face-to-face classroom discussions using web-supported case study methods. They attributed this result to the discussion environment providing nursing students with multiple perspectives, the opportunity to benefit from each other's knowledge and experience, and the effectiveness of their desire to reflect their own thoughts (Uluyol & Guyer, 2014). Although web-based teaching models have benefits for both trainers and learners, they also have some limitations for both parties (Table 2).

Table 2

Benefits/limitations of web-based teaching models for both learners and trainers

Benefits of Web Based Teaching Models	
For learners	Providing a learning environment independent of time and place Allowing watching again the trainings that cannot be repeated very often due to crowded classes in applied trainings, whenever desired Reducing recall and learning time thanks to a learning environment that appeals to multiple senses Putting students in the center instead of trainers in education and training and designing the system in a way that students can perceive

For trainers	Providing the opportunity to reach many people with the advantages of multimedia Enabling students to track their coursework and studies outside of class Preventing trainers from not having enough time to evaluate student assignments, being unable to keep student activities, and not being able to make process-based evaluations Enabling all information to be updated quickly from a single center
Limitations of Web-Based Teaching Models	
For learners	Inability to create a sense of community among students Possible disappointment due to unmet student expectations Failure to consider the specific needs of students who take this education for the first time Inadequate academic, technical, and advisory support for students Feeling of social communication deficiency due to the lack of mutual communication process Requiring a certain level of technical knowledge and computer literacy Possible negative impact on students' critical thinking processes Long preparation processes
For trainers	High cost of the process Requiring a certain level of technical knowledge and computer literacy Having complex planning and organization process (requiring professionalism) Inadequate level of experience of teaching staff Institutional barriers disrupting the process due to financing, infrastructure, and technological problems

Source: (Bagriacik Altintas & Vural, 2018; Bahar, 2015; Barisone et al., 2019; Bilgic & Tuzun, 2015; Boz-Yuksekdag, 2015)

Distance Education

Distance education is a computer-based, online teaching method in which education-training interaction between educators and students is provided in cases where classroom education cannot be done due to the limitations of traditional methods. Distance education has emerged as an alternative due to problems encountered in traditional methods such as distance, insufficient capacity of educational institutions, and lack of teaching staff. Distance education enables a large number of students to receive education in a short period of time and at the same time, without physical barriers such as time and geographical distance, and to access any educational program at any center (Eygu & Karaman, 2013; Ozturk, 2015; Senyuva, 2013a). This method supports formal education in nursing education, contributes to lifelong learning, and provides equal opportunities for students. After graduation, distance education can also provide nurses with the opportunity to increase and develop their professional and individual qualifications within a flexible framework, as well as continuing their education while working (Ozturk, 2015; Usun, 2006). When designing distance education programs in nursing education, it is important to identify the target audience. Therefore, the content should be planned according to the answers given to the questions of "Do the students who will participate in distance education have theoretical knowledge and skills related

to nursing profession? Are the students who will receive education in this field nurse candidates with no knowledge?" In addition, it should be determined which learning techniques students primarily use (such as listening, reading, writing, discussion) and how to convey the necessary theoretical knowledge and provide relevant feedback (Boz & Kurubacak, 2008). Considering the perceptions of nurse academics regarding distance education, those having distance education are more motivated and tended to make more independent decisions and search for the course content in more detail and comprehensively compared to those having traditional education (Mancuso, 2009).

Distance education is also applied in basic nursing education, as well as post-graduate education and certificate programs in developed countries such as Europe and the United States (Senyuva, 2013a). The first distance education in Turkey started with the "Associate Degree Program in Nursing" between the 1990-1991 academic years, and the web-based "Undergraduate Completion Program in Nursing" was opened in the 2009-2010 academic year. No student registrations have been accepted for the associate degree program since the 1998-1999 academic years, and the undergraduate completion program is still ongoing. In the 2011-2012 academic year, the Inonu University Institute of Health Sciences Surgical Diseases Nursing Distance Education Non-Thesis Master's Program was opened (Ataturk University Distance Education and Research Center, 2017; Boz-Yuksekdag, 2015; Kahyaoğlu Sut & Kucukkaya, 2016; Ozturk, 2015). In addition to its opportunities and advantages, distance education also has some limitations (Table 3).

Table 3

Advantages and limitations of distance education

Advantages of distance education (Boz & Kurubacak, 2008; Kahyaoğlu Sut & Kucukkaya, 2016)	Limitations of distance education (Kahyaoğlu Sut & Kucukkaya, 2016; Senyuva, 2013a)
Distance education is an economical option to reach information	To achieve nursing competency, theoretical education must be supported by practice, but cannot be carried out at the desired level in distance education
The use of audio and visual materials in distance education environment provides permanence (for example; 3D animations, video images, pictures, drawings, etc.)	There are difficulties in communication between students and educators
It enables schematic representation of theoretical knowledge of basic sciences (anatomy, physiology, pathology, biochemistry, etc.) and basic nursing courses	It reduces socialization
It benefits nursing candidates in increasing their theoretical knowledge and alleviating their fears and concerns before application	Problems encountered during learning cannot be resolved immediately
Interaction between students from different locations is important for them to evaluate themselves and to know that they are not alone	There are difficulties in teaching topics that require practical application

Graduate nurses can review their applications, Having a large number of students update their professional knowledge and has negative effects on learning skills, be aware of innovations in the field, and find opportunities for education and self-improvement during irregular working hours

As a result, distance education is not a method that can be applied alone for nursing education, but rather it should be planned to support traditional education, especially in basic education, and to enable lifelong learning after graduation (Ozturk, 2015).

Electronic Learning (E-Learning) and Mobile Learning (M-Learning)

Electronic Learning (E-Learning) refers to the use of rapidly developing digital technologies such as social networks in education. The use of digital technologies is inevitable in nursing education to facilitate learning, reinforce knowledge, and make efficient use of time. E-Learning is included in nursing curricula in many countries, including Australia, Canada, Greece, Ireland, New Zealand, the UK, and the US (Button et al., 2014; Voutilainen et al., 2017).

Over the past 50 years, mobile technology and devices have entered many areas of life including education, business, and communication. The concept of Mobile Learning (M-Learning) has emerged with the integration of mobile technologies into the field of education (Adiguzel et al., 2014). M-Learning provides access to educational content without being tied to a specific location, facilitates communication with others, responds to individual needs of uses, and increases productivity (Ozdamar Keskin & Kilinç, 2015; Voutilainen et al., 2017). In addition to these advantages, M-Learning meets the unlimited demands of the new generation of students with its uninterrupted learning process (Sahin & Basak, 2017; Tekdal & Sayginer, 2016). M-Learning also refers to learning without a fixed location" and "learning with the advantages of mobile technology, mobile phones, and Personal Digital Assistants (PDAs). With the expansion of wireless internet networks, interest in E-Learning has shifted towards M-Learning (Ozdamar Keskin & Kilinc, 2015; Voutilainen et al., 2017).

Mobile devices are easy to carry, use, and access. Although not yet widespread in nursing education, mobile applications can be used in many areas, including medication information and dosage calculations, basic sciences such as anatomy and physiology, and the interpretation of laboratory findings, for nursing students who have online access anywhere. On the other hand, technology-supported M-Learning enables nursing students to be in different locations with paperless learning environments, practical and advanced virtual environments in situations where they are restricted (due to a low number of cases, insufficient clinical practice time, etc.), and contribute to the new generation of nursing education (Mackay et al., 2017; Sahin & Basak, 2017).

In summary, the effective use of the developing knowledge network by nursing students who are familiar with new generation technology and their willingness to do so require the integration of E-Learning and M-Learning techniques into nursing curricula. Educators should also organize educational programs according to the needs, interests, and abilities of the new generation nursing students (Sahin & Basak, 2017). Studies have shown that students' motivation, self-confidence, and satisfaction are high in education provided through E-Learning and M-Learning (Chung, 2013; Gagnon et al., 2013; Lee et al., 2016). Ozturk and Dinc (2014) compared traditional methods with E-Learning

in urinary catheterization skills training and found that students who received practical training through E-Learning had higher evaluation scores (Ozturk & Dinc, 2014).

Video-Supported Teaching

To enhance the psychomotor skills of nursing students and increase their competency in care services and treatment process prior to clinical practices, traditional methods are currently used in conjunction with educational methods such as real clinical scenarios, role-playing, video demonstrations, simulated and standardized patients (Mete & Uysal, 2010). The use of scientific videos in skills training is considered a pedagogical method that combines theoretical knowledge and practice. Video-supported education has several advantages for students such as developing cognitive aspects, causal reasoning, critical thinking, and problem-solving. Therefore, visualizing information makes learning and remembering easier, which increases students' motivation and enjoyment of learning (Akin Korhan et al., 2016).

Although studies on the use of video-supported teaching in psychomotor skill education in nursing are limited, its usage is increasing day by day. Korhan et al. (2016) has shown nursing students several videos related to nursing practices before skill laboratory practice, whereby the students reported that having practices through videos and other visual course materials made learning and reinforcement of skills easier for them (Akin Korhan et al., 2016). Elcigil and Sari (2011) collected data using a "focus group interview method" to identify facilitating factors in clinical education for nursing students, and emphasized that having good relationships with team members in the clinical setting positively affected the students' learning, whereby they were more motivated and willing to learn when they felt like part of the team. The authors also highlighted that the students' communication with their supervisors greatly influenced their clinical performance (Elcigil & Sari, 2011).

Educational Game

Due to the increasing use of technological devices such as smartphones, tablets, and computers, especially among young people, students' expectations have started to change in educational environments (Koivisto et al., 2016). This situation has led educators to search for different approaches. As it becomes more challenging to attract students' attention and conduct effective education, educational games have been introduced as a teaching strategy since the beginning of the 20th century. Recently, educational games have also begun to be used in nursing education (Johnsen et al., 2018; Kinder & Kurz, 2018; Pront et al., 2018; Royse & Newton, 2007). The aim of playing games or providing nursing care is considered as a problem-solving process (Koivisto et al., 2016). Educational games such as video games, computer games, simulation games, 3D laboratory games, and other educational games that individuals can prepare according to various conditions can be integrated into traditional nursing education to make learning fun and increase motivation in nursing students (Blakely et al., 2009; Gallegos et al., 2017; McLafferty et al., 2010; Strickland & Kaylor, 2016). However, when creating educational games, it is necessary to establish fundamental rules and regulations, match theoretical knowledge with practical knowledge, and provide appropriate feedback (Gallegos et al., 2017). It should also be able to incorporate both competition and fun. If the requirements for creating educational games are met, nursing students can improve their knowledge and skills without the fear of making mistakes, feeling more comfortable (Johnston et al., 2013). Although the benefits of this method and its facilitation of learning are mentioned in the literature, the studies on this subject are quite inadequate (Gallegos et al., 2017).

As with any educational method, the educational game method also has its advantages and disadvantages (Blakely et al., 2009). Its advantages can be listed as reducing stress and anxiety, increasing motivation, teamwork, and interaction, as well as making learning fun and getting away from the monotony of traditional teaching methods. However, its disadvantages include competition during the game, which can increase stress and embarrassment or be perceived as threatening, the need for some games to require special preparation and cost, and making individual evaluation difficult (Blakely et al., 2009). According to research, students' feedback reveals both positive opinions and negative aspects and areas for improvement in educational games (Gallegos et al., 2017; Koivisto et al., 2016). Koivisto et al., (2016) aimed to teach postoperative care through a 3D simulation game for students taking surgical nursing courses and determined that nursing students who were used to play games daily or frequently were more successful in all care stages than those who did not play games at all. The authors also observed that even if the students played games alone, they worked in collaboration with other students during decision-making, thus developing teamwork and social relationship skills, which are also essential in clinical practice in nursing (Koivisto et al., 2016).

Although there are many educational games such as visual games, visual reality, and digital games, computer-based games are generally used in the field of nursing (Pront et al., 2018). Although it is not certain whether there is a definite benefit or harm in the results of the study, the literature generally mentions the positive effects of games on education. Therefore, it is important to design the lesson to be applied in order to achieve the positive effects of the game, taking into account several factors such as the age of the students, and to publish the results to guide other educators.

Peer Coaching

In parallel with recent changes in the field of education, nursing education has also changed and developed. However, due to various factors such as a greater emphasis on theoretical knowledge in nursing education, a shortage of teaching staff, a high number of students, and expectations of teaching staff to perform duties other than teaching, there are significant problems in using this theoretical knowledge in clinical practices. Therefore, nursing students need someone in the clinical setting who can share their experiences and provide guidance. A new approach called "peer coaching" has been proposed as a solution in response to this need (Ay, 2007; Waddell & Dunn, 2005).

Peer coaching, also known as discovery learning, aims to facilitate knowledge transfer and mutual development between individuals of similar ages and experiences (Broscious & Saunders, 2001; Yava & Sutcu Cicek, 2016). Although coaching and mentoring are often used interchangeably, they are distinct concepts in the literature. Coaching is considered one aspect of mentoring, and the key difference between coaching and mentoring is that coaching adopts an approach based on both skill training and theoretical knowledge (Sezer & Sahin, 2015). Certain components should be present to ensure the effectiveness of peer coaching. When these components are present, this method provides many benefits for both students and their coaches. These components include identifying the estimated transfer needs, teaching clinical application behavior through demonstration and instruction, creating opportunities for practice, providing non-judgmental feedback, and encouraging questioning and self-assessment (Waddell & Dunn, 2005). When providing feedback, the most important point is to provide positive feedback that reinforces correct practices and helps correct incorrect practices (Waddell

& Dunn, 2005; Yava & Sutcu Cicek, 2016). If peer coaching is applied correctly, it provides various advantages for both learners and their coaches (Table 4) (Bensfield et al., 2008; Broschious & Saunders, 2001; Yava & Sutcu Cicek, 2016).

Table 4

Advantages of Peer Coaching

	Advantages of Peer Coaching
For learners	Develops a sense of responsibility for nursing student roles, Decreases stress level while learning basic nursing skills, Develops organizational skills Develops interpersonal relationships Develops collaboration skills Allows to have an opportunity to observe positive role models, Increases professional power among nursing students, Increases self-confidence in nursing students, Its educational environment is not limited to only instructors and students, Allows students to feel more comfortable, safe and makes learning easier
For peer coaches	Increases self-confidence for clinical nursing roles, Develops leadership skills, Increases self-confidence regarding skill proficiency, Develops interpersonal skills, Develops critical thinking skills, Increases knowledge and experience of students by using various strategies for learning and teaching basic nursing skills, Develops perspectives on nurse educator roles

Reflection

Reflection is a detailed thinking process about a situation that a person has experienced, and it can be done in written form or through small group discussions. An individual can write about a situation that has affected them in a self-evaluative way. The reflection process consists of four steps: 1. returning to past experiences, 2. focusing on one's feelings, 3. re-evaluating the experience, and 4. Learning (Deliktas et al., 2016). By focusing on their own actions, thoughts and emotions and analyzing, questioning, and examining their individual values, beliefs and attitudes, individuals can have the opportunity to explore and discover themselves (Deliktas et al., 2016; Ferszt et al., 2017). Reflection practices that develop problem-solving skills also help nursing students to notice different experiences and problems they face during academic courses or clinical practices, recognize their strengths and weaknesses, and develop their ethical aspects (Deliktas et al., 2016). For example, in class, a week before a lesson, nursing students are asked to read a reflection about "a spouse taking care of a wife with Alzheimer's disease"

and select a sentence that interests them. They can be asked some questions about the experience they chose, such as "What did you learn about yourself after reading this thought?" and "What did you learn about the impact of this disorder on the patient and/or her family?" The students are then divided into groups of 4-6 and asked to share the sentences they chose and the reasons behind their choices. Each group then shares a summary of their group discussion with the entire class. As a result, this activity offers them the opportunity to learn from their peers (Ferszt et al., 2017).

Concept Mapping Model

One of the main goals of nursing educators is to equip nursing students with skills that will enable them to continue learning independently even after completing formal education. In the rapidly changing and evolving age of information, concept mapping is one of teaching methods that can help nursing students access, organize, and distinguish important and unimportant information. Concept mapping uses flowcharts to organize basic concepts and make it easier to understand the relationships between them, promoting critical thinking, organizing knowledge, identifying relationships between concepts, and integrating theoretical and practical education (Yue et al., 2017). Concept mapping present a visual presentation of the relationships between key terms derived from the learned topic, which has a lasting effect on students' learning outcomes. In their semi-experimental study of 64 nursing students, Jaafarpour et al. (2016) found that concept mapping has a positive effect on students' learning outcomes and academic achievements (Jaafarpour et al., 2016).

Nursing profession gains its quality by integrating knowledge, skills, and critical thinking skills. Concept mapping is also an alternative and valuable method for developing critical thinking skills. Kaddoura et al. (2016) found that nursing group with concept mapping performed better in terms of critical thinking skills than those with traditional methods (Kaddoura et al., 2016). As a result, concept mapping is one of the effective teaching tools that positively contributes to the quality of nursing education (Kinchin, 2014).

Conclusion and Recommendations

Active learning methods and models are frequently used in nursing education today. These methods provide positive affective, cognitive, and psychomotor outcomes for nursing students. Additionally, nursing students may miss out on opportunities to learn and practice in real medical contexts due to safety and practical reasons. Therefore, it is highly important to involve nursing students in contexts where they can learn to communicate with patients and make judgments based on what they observe in the field, in addition to what they learn from textbooks. Especially considering the challenging social expectations for new graduate nurses, active learning programs can contribute to meeting their needs for nursing profession in practice. Therefore, educators and nursing students should be encouraged to use these methods. Furthermore, there is a need for further studies on these methods in both theoretical and clinical applications.

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