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Use of simulation in psychiatric nursing education: a systematic review

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ABSTRACT

Aims: The use of simulation and standardized patient practice has increased in nursing undergraduate education in recent years, but limited research has been conducted on the effect of appropriate simulation and standardized patient in the development of knowledge and confidence in psychiatric nursing practice education. The aim of this systematic review is to review the studies on the use of simulation and standardized patient in psychiatric nursing practice education and to systematically examine the results of these studies.

Methods: The study was conducted using PubMed, Science Direct, Web of Science, EBSCO, and Scopus databases. The keywords 'graduation', 'psychiatric nursing', 'education', 'simulation', 'standard patient' were used in the search, and the articles published in the last 10 years, the full text of which was accessed and in English, were analyzed.

Results: The included studies were conducted between 2013 and 2023, and simulation-standardized patient practice with structured scenarios of suicide attempt, obstetrics, pediatrics, and mental health, role-playing, communication skills, acute mental health care, family-centered care, generalized anxiety disorder, therapeutic communication, and dependent individuals was used in the studies. In the studies, it was determined that simulation-standardized patient practice is an effective practice method in developing communication skills competence. In addition, it was found that the standard patient simulation application had a positive reflection on students' mental health care in the clinical environment.

Conclusion: In this systematic review, it is noteworthy that although simulation and standardized patient practice in psychiatric nursing practice education have an important contribution to the development of psychiatric nursing skills, research is limited. In this direction, it is important to conduct experimental studies on simulation and standardized patient practice in psychiatric nursing education.

Keywords: Psychiatric nursing, simulation, standardized patient, education

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INTRODUCTION

Psychiatric nursing is defined as a discipline that combines knowledge, experience, nursing skills, biological and social science data, and the therapeutic use of the self that plays a critical role in the processes of protecting, promoting, and treating individuals' mental health. This field requires not only an education based on theoretical knowledge but also an understanding of complex human behavior, empathy, and the development of effective therapeutic relationships. The main purpose of psychiatric nursing education is to train professionals who will contribute to the processes of protecting and improving mental health and contributing to the treatment and rehabilitation processes in cases where mental health is impaired by using the principles, concepts, and processes that make up this discipline effectively (Özbaş & Buzlu, 2011; Robinson-Smith et al., 2009). In this context, one of the most important components of the educational process is that students can effectively apply the knowledge and skills they acquire through clinical practice in the real world.

Psychiatric nursing clinical practice aims for students to acquire the skills of establishing a therapeutic relationship with individuals with mental disorders, performing mental status examinations, and providing care. However, this process can often be a source of intense stress and anxiety for students. In the literature, it is emphasized that nursing students carry various prejudices and reservations before starting psychiatric nursing clinical practice, and this is usually due to fear of the unknown (Lehr & Kaplan, 2013; Alshowkan & Kamel, 2016; Brown, 2015). Alshowkan and

Kamel's study revealed that nursing students participating in psychiatric nursing clinical practice initially felt inadequate due to lack of experience and anxiety, but these feelings decreased as they gained experience. It was also stated that this intense anxiety experienced by the students negatively affected their thinking processes and prevented the establishment of a therapeutic relationship and therapeutic use of the self (Alshowkan & Kamel, 2016).

The therapeutic use of the self involves the effective management of emotions and the ability to empathize. This skill is one of the cornerstones of successful nursing care in mental health services. However, students often lack the opportunity to develop and practice these skills before starting clinical practice. Studies show that the most intense stress factors that students face in clinical practice are providing care to patients, communicating with patients' relatives, and coping with the dynamics in clinical settings (Szpak & Kameg, 2013; Olasoji et al., 2020; Alzayvat et al., 2015; Felton & Wright, 2017). Ineffective coping with these stressors has been reported to negatively affect students' learning process and clinical performance.

In this context, the inclusion of clinical simulation in psychiatric nursing education stands out as an important tool to better prepare students for clinical practice. Clinical simulation offers students the opportunity to apply their theoretical knowledge, assess risks, develop therapeutic communication skills, and gain self-confidence in a safe and controlled environment. This method is used especially in psychiatric nursing education as an effective tool to reduce students' anxiety levels and strengthen their therapeutic relationship skills. In addition, these practices have positive results such as increasing awareness of patient safety, developing critical thinking skills, and increasing students' level of preparation for clinical practice (Felton & Wright, 2017; Vandyk et al., 2018). It is noteworthy that studies on the use and effectiveness of clinical simulation in psychiatric nursing education are more limited than these methods, which are widely used in other nursing fields. This systematic review aims to evaluate the simulation modalities used in psychiatric nursing education, the student groups to which these modalities were applied, and the results of these studies.

METHODS

Ethical Approval

Since secondary data were used in this study, ethical approval permission was not required. The rules of research and publication ethics were followed in this article.

Research Design

The 'preferred reporting items for systematic reviews and meta-analyses (PRISMA) checklist' and 'Cochrane' were used as guides in the process of preparing systematic reviews. In this study, studies published in English between January 2013 and December 2023 were retrospectively analyzed. 'PubMed', 'Web of Science', 'Scopus', 'EBSCO', 'Google Scholar' and 'ScienceDirect' were used as data sources. The following keywords were used: "graduation" OR 'psychiatric nursing', 'education' AND 'simulation' OR 'standardized patient'. Filters were applied according to study inclusion or exclusion criteria. The authors evaluated all abstracts for the following inclusion criteria: studies were (a) simulation-standardized patient use in psychiatric nursing practice, (b) published in peer-reviewed journals between January 2013 and December 2023, and (c) qualitative and quantitative studies, reviews, and systematic reviews published in English. Excluded studies are: (a) gray literature reports such as these, doctoral theses, letters to the editor, committee reports, government reports, and conference proceedings (b) duplicate studies; (c) studies for which full text was not available. The population, intervention, control, outcome, and cluster of controls (PICOs) strategy was used for data screening. The research questions were formed as P: sample group/population, I: simulation-standard patient practice/intervention, C: comparison, P: outcome, S: study design. The sample characteristics and size of each study included in the review (P), the effect of the simulation modality applied at the end of the studies (O), and descriptive studies (S) were evaluated. All characteristics of the included studies are described in Table. As a result of the literature search, 404 studies were found based on keywords. After the first search, 201 duplicates were removed. The authors evaluated the titles and abstracts of the remaining 201 articles, and 122 of them were excluded because they did not meet the inclusion criteria. After a full-text review of the remaining 79 studies, 29 were excluded due to limitations in accessing full details of the study, and 41 were excluded because they were not directly relevant. Finally, 9 studies were included in the current systematic reviews (Figure). The "PRISMA" flowchart was used by the researchers to control the study. The included studies are indicated in the bibliography.

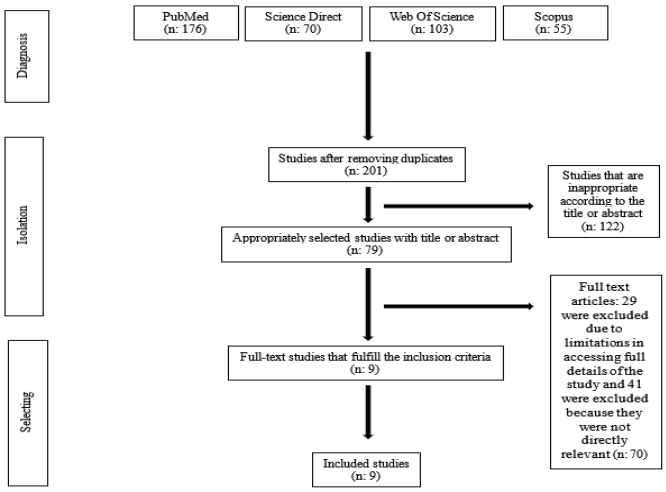

Figure. Flowchart of the studies included in the systematic review (PRISMA-P flowchart)

RESULT

The included studies were conducted between 2013 and 2023; one of the studies was conducted with post-graduate nursing students, one with associate degree nursing students, three with graduate nursing/multidisciplinary teams, and four with undergraduate nursing students. The included studies used structured scenarios on suicide attempts, obstetrics, child mental health, role-playing, communication skills, acute mental health care, family-centered care, generalized anxiety disorder, and dependent individuals. It was determined that two studies were conducted during the pandemic period. In the studies, it was determined that simulation application is an effective application method in developing communication skills competence. In addition, it was found that simulation practice had a positive reflection on students' mental health care in the clinical environment (Table).

Table. Characteristics of the included studies

Author-year	Objective	Application	Sampling	Conclusion
Clark et al. (2022)	The aim of this study is to compare an innovative interprofessional simulation application to the interruptions caused by the pandemic in nursing education.	Standardized patient-opioid use disorder simulation case study	Interdisciplinary (graduate social worker, mental health and psychiatric nursing students)	Interprofessional simulation was found to be advantageous.
Pfeiffer & Wands (2021)	The aim of this study was to examine the feasibility and learning outcomes of a partnership between nursing and theater departments aimed at creating trained cumulative patient comparisons for psychiatric nursing simulation applications.	Standardized patient-therapeutic communication skills	Undergraduate psychiatric nursing students	Positive simulated patient learning experiences were observed for both groups of students, increasing their confidence.
Kobeissi et al. (2021)	The aim of this study is to enable graduate psychiatric nursing students to utilize their missing clinical hours with the innovative use of virtual simulation.	Virtual simulation (adult-gerontology, family nursing, common ank., major depression)	Graduate nursing students	It was determined that it is advantageous to use virtual simulation as a complementary method in graduate psychiatric nursing clinical education.
Fitzgerald & Ward (2019)	The aim of this study was to examine nursing students' performance in providing family-centered care and empathic communication in pediatric simulation.	Standard patient (family centered care - empathy)	Undergraduate nursing students	The simulated experience was found to benefit students by providing a safe environment to improve therapeutic communication and family-centered care.
Kunst, Mitchell & Johnston (2017)	The aim of this study was to determine whether simulation scenarios are an effective form of learning to improve nursing students' self-reported confidence, knowledge, and ability to manage mental health problems in the acute care setting and to determine whether these benefits can translate into improved capacity in clinical practice.	High reality simulation (patient applying to emergency department)	Undergraduate nursing students	She suggests that simulation training can enable undergraduate nurses to develop confidence, skills and knowledge in the delivery of mental health care in acute care settings.
Yu & Kang (2017)	The aim of this study was to develop a role-play simulation program that incorporates the SBAR technique in nurse-doctor handover, to implement the program, and to analyze its effects on situation, background, assessment and recommendation communication, communication clarity, handover confidence, and educational satisfaction in nursing students.	Standard patient (communication skills)	Undergraduate nursing students	Participants in the role-play simulation program reported high levels of posttest satisfaction and changes in communication clarity. Therefore, the role-play simulation program was an effective educational method for teaching the SBAR technique to nursing students.
Aronowitz et al. (2017)	It was aimed at evaluating the effectiveness of the application of the OSCE exam in nursing education practice.	Standard patient (objective structured physical examination)	Graduate nursing students	Starting with basic cases and increasing complexity throughout the program, OSCEs have been identified as best practice examples.
Lilly, Hermanns & Crawley (2016)	The aim of this study was to evaluate the transfer of knowledge from simulation experience to nursing practice within the scope of psychiatric nursing practice in graduate nursing students.	Standard patient (suicide attempt)	Nursing undergraduates	It was determined that graduate nursing students evaluated simulation practices as useful and comprehensive.
Curl et al. (2016)	The aim of this study was to evaluate the effectiveness of using high-fidelity simulations to replace traditional clinical experiences in obstetrics, pediatrics, intensive care and mental health nursing.	Standard patient (obstetrics, pediatrics, mental health and emergency care scenarios)	Associate degree nursing students	The addition of high-fidelity simulation applications was found to increase pre-graduation competence.

SBAR: Situation, background, assessment, and recommendation, OSCE: Objective structured clinical examination

DISCUSSION

This systematic review primarily focused on simulation modalities used in psychiatric nursing education and the results obtained from these studies. As a result of the studies reviewed, it was seen that structured, standardized patient applications are most frequently preferred in the field of psychiatric nursing. It was determined that the applications gained weight most frequently with the pandemic process and were used in postgraduate education as well as undergraduate education.

Simulation practices in psychiatric nursing have been found to increase students' self-confidence and competence, especially in key areas such as communication skills (Yoo & Yoo, 2003; Leighten & Russell, 2011) and therapeutic communication (Fitzgerald & Ward, 2019). For example, in a study by Yoo and Yoo (2013), an increase in communication clarity and handover confidence was observed in students participating in a role-play simulation program. Similarly, family-centered care and empathic communication skills improved in pediatric simulations (Wotton et al., 2010). This reveals the potential of creating a safe learning environment for nursing students to provide more effective patient care in clinical settings.

In extraordinary situations such as pandemics, virtual simulations have emerged as an important alternative due to the reduction of clinical hours. Medley et al. (2005) stated that students studying psychiatric nursing at the graduate level were able to complete their missing clinical hours through virtual simulations and that this method was advantageous. It is emphasized that such technological innovations are more flexible and accessible compared to traditional clinical education models.

Furthermore, high-fidelity simulations and structured exams such as OSCE have been observed to improve students' ability to manage complex scenarios (Aronowitz et al., 2017; Kunst et al., 2017). This finding suggests that simulation trainings should become a standard to enhance pre-graduation competencies.

It was observed that post-graduate psychiatric nursing practices were carried out in a multidisciplinary manner. In line with our findings, interprofessional simulation practices provide a great advantage in education because they improve students' ability to collaborate with colleagues from different disciplines. Clark et al. (2022) reported that nursing and social work students achieved positive results by working together in the simulation of opioid use disorder. It can be said that these practices will increase the coordination and effectiveness of healthcare teams.

One of the most important advantages of simulation applications used in psychiatric nursing education is that they enable students to care for individuals with mental health disorders in a safe learning environment. Students experience the practice of managing complex clinical situations such as psychiatric emergencies, interviewing and caring for individuals with mental disorders without jeopardizing patient safety (Clark et al., 2022). In a study conducted by Kunst et al. in 2017, it was reported that students who experienced acute mental health care with high reality simulation increased their confidence and knowledge in mental health care after the intervention. In addition, it was reported that improvement was observed in students' application skills (Kunst et al.,2017). The positive effects of using high validity and standardized patient simulation applications in education such as increasing communication skills, improving clinical decision-making ability and raising awareness on patient safety issues have been emphasized in many studies (Yıldırım et al., 2020; Karabacak, 2013; Şenyuva & Kaya, 2014; Sarıkoç et al., 2018). The positive effects of using high validity and standardized patient simulation applications in education such as increasing communication skills, improving clinical decision-making ability and raising awareness on patient safety issues have been emphasized in many studies (Yıldırım et al., 2016; Karabacak, 2013; Alshowkan & Kamel, 2016).

As a result, it is seen that the use of simulation applications in psychiatric nursing education offers a very advantageous and qualified opportunity to achieve the goals expected to be gained by students.

Limitations

The most important limitation of this study is that few studies could be included in the systematic review.

CONCLUSION

Clinical simulation in psychiatric nursing education is an effective method that supports students to put their theoretical knowledge into practice in a safe environment, improve their therapeutic communication skills and gain self-confidence. In addition to reducing anxiety, this approach strengthens therapeutic relationship skills, increases patient safety awareness and improves critical thinking skills. It also stands out as a tool that strengthens students' preparation for clinical practice. In this systematic review, simulation modules used in psychiatric nursing education and the results obtained from these applications were discussed. Nine quantitative studies were included in the review and it was determined that structured standardized patient applications were most frequently preferred in the field of psychiatric nursing. At the same time, it was determined that these simulation applications contributed positively to the development of communication skills and mental health services in the clinical environment. In conclusion, it is noteworthy that simulation and standardized patient methods contribute significantly to the development of skills in psychiatric nursing education, but research in this field is limited. In this context, more widespread use of these methods in education will improve the quality of education by increasing both students' therapeutic communication skills and self-confidence.

ETHICAL DECLARATIONS

Ethics Committee Approval

Since secondary data were used in this study, ethical approval permission was not required.

Informed Consent

Since secondary data were used in this study, informed consent was not required.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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