Original Article

An Examination of the Education Based on Standard Patient Simulation in Nursing Students' Approach toward Patients with Bipolar Disorder: Randomized Controlled Study

Nesibe Gunay Molu
Associate Professor, Necmettin Erbakan University, Faculty of Nursing, Department Nursing, Mental Health and Diseases Nursing, Konya, Turkey

Birgul Ozkan
Associate Professor, Ankara Yıldırım Beyazit University, Faculty of Health Sciences, Department Nursing, Mental Health and Diseases Nursing, Ankara, Turkey

Correspondence: Nesibe Gunay Molu, Associate Professor, Necmettin Erbakan University, Faculty of Nursing, Department Nursing, Mental Health and Diseases Nursing, Konya/Turkey
E- mail: nesibegunaymolu@gmail.com

Abstract

Objective: The aim of this study is to evaluate the effect of simulation application on different parameters in psychiatric nursing education.

Methods: This is an experimental, for the education of psychiatry nursing students (n=74). The Student Information Form, Fear and Behaviour Intent Scale (FABI), The Communication Skills Assessment Scale (CSAS), State and Trait Anxiety Level (STAI), Self-Efficacy-Sufficiency Scale (SES) and Clinical Decision Making in The Nursing Scale were used in the study.

Results: It was found that the simulation trainings with standardized patients are effective for the development of positive attitudes and behaviours in the students' fear and behaviour intentions, as well as communication skills and reduction in their level of anxiety. It was found that the training program had a medium size effect on fear and behaviour intentions (0.53), communication skills (0.48) and state anxiety levels (0.528) of the experimental group of students. As a result of the training program, a mild size effect was found in the state anxiety levels (0.100), clinical decision-making skills (0.011) and self-efficacy levels (0.061) of the students in the experimental group. It was determined that these results were compatible with the other findings.

Conclusions: The simulation trainings are recommended to be increased for the education of psychiatry nursing.

Key words: Bipolar disorder; psychiatric nursing; simulation; standardized patients.

Introduction

Bipolar disorder is a mental illness characterized by extreme mood swings that include emotional highs and lows. Clients with bipolar disorder may not always recognize the potential harmful effects of their behaviours during manic or hypomanic episodes, which underscores the importance of thorough assessment and monitoring by healthcare professionals. This information guides the development of individualized care plans and interventions to help monitor symptoms and promote stability and well-being. In bipolar disorder, psychiatric nurses use a variety of strategies and techniques to deal with symptoms and support the individual's stability and well-being (https://www.ncbi.nlm.nih.gov/books/NBK590048/). Self-introduction to the patient, establishment of trustworthy therapeutic communication, increased self-esteem, exhibition of calm

manners, and proper decision making regarding the patient and the environment in the clinic, are among the issues that a mental health and psychiatric nurse should pay close attention to. Psychiatric nurses should possess many of these skills when dealing with the clinical care of these patients (Brown, 2015; Oner & Kizilkaya, 2017).

In the literature, it was reported that the practices of the nursing students prior to the clinical practices were not sufficient and nurses reported that they felt insufficient and insecure in a clinical environment (Terzioglu et al., 2012). These kinds of problems can be observed in all areas of nursing education and the area of psychiatric nursing is no exception. In addition, the quick process of hospitalization and discharge of the patients in psychiatric clinics, an inadequate number of healthcare professionals and insufficient time for clinical practice prevent students from seeing a number of cases (Brown, 2015; Ozbaş & Tuzlu, 2011). In particular, as the terms and theories in psychiatric nursing are abstract and the nursing students experience feelings of fear in the clinical environment, it is required to use different educational models for this education, such as simulation-based trainings.

The use of simulation in nursing education, which provides the clinical information and ability, is important and provides an innovative approach to teaching nursing as a science and art which supports the conceptualization and improvement in the presentation of nursing. Simulation trainings make it possible to practice the theoretical information and reduce the difficulties that the students meet in the clinical environment (Amsalem et al., 2020; Hwang & Kim, 2020; Koukourikos et al., 2021; Ozkan & Molu, 2017).

In simulation applications, the concept of standardized patient is widely used in psychiatric nursing education in our country as well as in the rest of the world. The Society for Simulation in Healthcare (SSH) defines a SP as a person who is carefully trained to simulate a real patient [or participant] so accurately that a skilled clinician would not be able to detect the simulation. The standardized patient is portrayed by trained individuals, depicting a medical or disease condition accurately and consistently (Hillier et al., 2020)

In the standard patient method, scenarios containing clinical information appropriate for learning purposes are created. Standard patients are trained in accordance with the scenario, the interviews of the students with standard patients are recorded with the camera, and immediately after the interview, the camera recordings are watched and the reflection and feedback processes and analysis sessions are held (Ozkan & Molu, 2017; Terzioglu et al., 2012).

Simulation practices with SP provides therapeutic learning skills, critical thinking, decision making, ending interventions, problem solving, self-therapeutic use, cultural sufficiency and clinical-thinking skills. In addition, the interactive learning environment increases the therapeutic communication skills and self-confidence levels of the nursing students (Brown, 2015; Ellis et al., 2015; Farooq et al., 2020). However, studies evaluating the impact of standard patient training on students on the approach to patients with bipolar disorder were limited (Hermanns et al., 2010; Kameg et al., 2010; Ozkan & Molu, 2017; Szpak & Kameg, 2013). This study was planned as there is no satisfactory study in this area [the absence of comparative studies in Turkey at the time of the study] and also to contribute to the literature in this area.

The study was conducted to determine the effect of the simulation method with the participation of standardized patients towards the patients suffering from bipolar disorder to benefit the education of the psychiatry nursing students.

Methods

Type of Research: The study was planned for the design of an experimental and randomized controlled research. The study was uploaded to the Protocol Registration and Results System (PRS). The system is ClinicalTrials.gov ID number is NCT04027933.

Research Universe and Sample: The students of the Department of Nursing in the Faculty of Health Sciences during the 2017-2018 academic year constitute the research universe. The sample of the study consists of 83 students who agree to participate in the study and meet the research criteria. The Minitab software was used to calculate samples and 99% confidence interval with type 1 error 0.05 was accepted. A 0.5 score difference of the anxiety scale (Sideras et al., 2015) was accepted as a success and a sample of 76 students with 38 in the experimental and 38 in the control group was agreed upon. The power analysis at the end of the study indicated that the scale's average scores ranged between 0.56-0.98. 83 students who will be trainees in the psychiatric clinics and community mental health centers (CMHC) were included in the study and constituted the experimental and control groups. Female and male students were ranked from the highest to the lowest by their academic success scores (grade point average in the undergraduate education process), and random numbers table were assigned in excel to randomly divide these ranked students among the groups. This randomization procedure was done in class. Considering the losses that may occur during the study, 83 students were included in the study. Before the study began, two students whose clinical practice locations had changed and two students who were absent in the theoretical class were excluded from the study, and 79 students were divided into two groups as 40 students for the experimental and 39 students for the control group. After the study began, in the experimental group, 2 students who were absent in the simulation practice and one student who did not properly fill in the data collection form were excluded from the study. In the control group, two students who did not want to fill in the data collection form were also excluded from the study. The study was completed with 37 students from experimental group and 37 from the control group with 74 individuals in total (Figures 1).

Data Collection Tools

Student Information Form: A 13-item student information form was used to collect data that was developed from the literature review and covered such socio-demographic information (Sideras et al., 2015).

Fear and Behaviour Intent Scale (FABI): The scale, developed by Wolf (1996) measures fear and behavioural attitudes toward mentally disordered patients. The scale was adapted into Turkish by Gunay Molu and Ozkan (2018) after the required permission was taken from the e-mail address on the original article. It consists of 10 items. It is a 5-point Likert-type scale including ten items. An increase in the total score of the scale means an increase in negative attitudes towards the mentally disordered patient. Cronbach's alpha was 0.784.

The Communication Skills Assessment Scale (CSAS): The 5-point Likert-type scale developed by Korkut (1996) is scored from "always" to "never". The scale consists of 25 items in total, and the maximum possible score is 100 while zero is the minimum. Higher scores indicate better communication skills. The reliability coefficient is 0.76 and the alpha internal consistency coefficient is 0.80 (Korkut, 1996).

State and Trait Anxiety Level (STAI): The scale developed by Spielberger in 1970 is a self-assessment questionnaire which is used to define state and trait anxiety levels. It was adapted into Turkish by Oner and Le Compte in 1985. It is a 4-point Likert-type scale. It is reported that the Alpha's coefficient ranges between 0.83 and 0.87, while the test re-test reliability ranges between 0.71 and 0.86, and the item reliability ranges between 0.34 and 0.72 (Oner, 1997).

Self-Efficacy - Sufficiency Scale (SES): The scale developed by Sherer et al., (1982) and adapted into Turkish by Gozum & Aksayan (1999) was developed to assess behaviour and behavioural changes. It is a 23 item 5-point Likert-type self-assessment scale and the Cronbach's alpha internal consistency coefficient was found to be 0.81 (Gozum & Aksayan, 1999) and the test re-test reliability was 0.92.

Clinical Decision Making in The Nursing Scale: The scale developed by Jenkins (1983) defines the clinical decision-making perceptions of nursing students. The original scale consists of 40 items and four sub-scales. Each sub-scale consists of 10 items. Total

score ranges between 40 and 200. Total Cronbach's alpha reliability coefficient is 0.78 (Durmaz Edeer & Sarikaya, 2015). Cronbach's alpha was 0.82.

The Research Implementation: In the first stage of the study, a theoretical education on the definition, types, signs and of emotion disorders, nursing approach to individuals with bipolar disorder and communication abilities was provided to the students in Department of Nursing in the Faculty. At the end of the training, data collection forms were applied to the students.

After two weeks, there was a standard patient implementation to the experimental group in which the standardized patient was given a scenario to act as a patient. The students in the experimental group were divided into ten groups of 3-4 people in total. Two students animated nurses while 1-2 students animated family members. The patient was portrayed by actors who were trained as standard patients. 10 scenarios in total were animated. Each scenario lasted 10-15 minutes. Then, as the last stage of the simulation training, debriefing was conducted to evaluate the animation made by the students. Debriefing took an average of 45-50 minutes.

To evaluate the outcomes, the scales were applied after the simulation training was completed and students were sent to the clinical practice after three weeks. The students started their internship in psychiatry clinics after 3 weeks and they did their internship for 4 weeks. Data collection forms were applied on the first day they started their clinical internship and on the last day when the internship was completed. Data collection forms were applied to the students for 4 times in total by face-to-face interview method (Figure 2).

Standard patient practice: The simulation application was carried out in the clinical skills training and simulation laboratory of the university. Simulation rooms, inpatient service and debriefing room can be managed from the control center. The rooms have cameras, speakers and microphones. The rooms are designed to be interconnected. Audio and video recording can be done. The scenarios were prepared through literature reviews to provide therapeutic communication for students. The standard patient was selected from among the actors who had previously completed their training on the subject and was informed about the study. In addition, they were trained about the scenario and its suitability was evaluated by two experts. Debriefing was conducted by all researchers. During the debriefing, a theme list to be discussed was prepared by the researcher by reviewing the literature which asked for the opinion of experts (Qusdhoorn & Sinclair, 2015).

Senario: In the developed scenario, the patient is a 32-year-old female patient with bipolar disorder and manic episode. The patient was admitted to the psychiatric clinic, but he did not accept admission because he had no insight. The patient, who came to the hospital with his mother, has visual hallucinations, delusions of persecution, anxiety, aggression and symptoms of hyperactivity. The scenario was developed in accordance with the learning objectives. Learning objectives were determined as recognizing the patient with bipolar disorder; approaching the patient with bipolar disorder, delusions and hallucinations; using therapeutic communication techniques. Students are expected to develop some strategies to achieve learning goals.

Data Evaluation: The research data was evaluated in SPSS 22.0 statistical software as appropriate to the quality of the data and research. Normality analysis was conducted by Shapiro–Wilk, skewness and kurtosis values. Two-way repeated-measures analysis of variance method was used to assess data. To evaluate the impact size of the education program, repeated-measures analysis of variance was used in the repeating assessment. Effect coefficients were calculated for effect size values, according to the level classification presented by Thalheimer and Cook (2002). In this study, the impact size of the education was found $1.45 \leq$, and evaluated as very high levels.

Research Ethics: Prior to the study, written permission was received from the ethics committee of the Faculty of Social Sciences (09/11/2016-15/9) and the Faculty of Health Sciences at Ankara Yildirim Beyazit University (48178250-300-E 1360). Written

and verbal approvals of research participants were received. The study protocol conforms to the ethical guidelines of the 1975 Declaration of Helsinki.

Results

According to the Chi-square test results which were conducted to compare the groups prior to the education, it was determined that individuals in the experimental and control groups were similar in terms of their socio-demographic characteristics such as gender, age, family type, parents' education status, perceived income level and prior participation to a simulation education (p>0.05). The average academic grades of students who participated in the study were calculated until the 7th term of their undergraduate education. It was found that the average success scores of two groups were similar (experimental group:2.81±0,34, control group:2.80±0,33) (p>0,05).

In the first assessment after the theoretical education, the mean scores of FABI, CSAS, STAI-I and STAI-II, CDMNS and SES scales were calculated for the students in the experimental and control groups. According to the t-test results, it was found that the individuals in the experimental and control groups were similar in terms of their mean scores of FABI, CSAS, STAI-I and STAI-II, CDMNS and SES scales (p>0,05).

In Table 1, according to the general average scores of FABI and CSAS, significant differences were found between the experimental and control groups and their assessments (p<0.001). The Bonferoni post-hoc test was conducted to understand the reason for this difference, and it was found that the average score of FABI for the students in the experimental group was lower after the simulation and before the clinical practice compared with the first assessment (p<0.001), while the average score of FABI for the students in the control group was high before the clinical practice (p<0.05). In terms of the average scores of CSAS, there was no difference in the control group while the first assessment scores were lower in the experimental group (p<0.001). It was found that the training program had medium size

effect on the fear and behaviour intents and communication skills of the experimental group of students as 0.53 and 0.48, respectively.

In Table 2, according to the average scores of STAI-I and STAI-II, significant differences were found between the experimental group and the control group (p<0.001). The mean score of STAI-I for the experimental group of students shows similarities for the first three assessments while it was lower in the assessment after the clinical practice was completed (p<0.001). It was determined that the mean score of STAI-II was lower after the simulation training and clinical practice compared with the other assessments (p<0.001). It was found that the training program had an insignificant effect on the state and trait anxiety levels (0.100) of the students in the experimental group and a medium size effect on their continuous anxiety levels (0.521).

A variance analysis was carried out in the recurring assessments to evaluate the intra-group changes of the students in the experimental and control groups in terms of their scores from CDMNS and SES during the training program. As a result of the analysis conducted, there was no significant difference in both scales in terms of total mean scores and sub-scale mean scores among the experimental and control groups (p>0.05). Additionally, in this study, the impact size of the education was found 1.45≤, and evaluated as very high levels.

Discussion

As is seen in society, healthcare professionals also exhibit stigma, discrimination and negative attitudes towards mentally disordered patients. It is known that negative beliefs, attitudes and behaviours affect patients in various ways. The patients often do not want treatment, do not look for help; and they reduce functionality and thus cause social isolation from the society. Positive attitudes and behaviours support patients and their relatives in various ways (Ighodora & Stefanovics, 2015). Therefore, it is important to change negative attitudes and behaviours of nursing students.
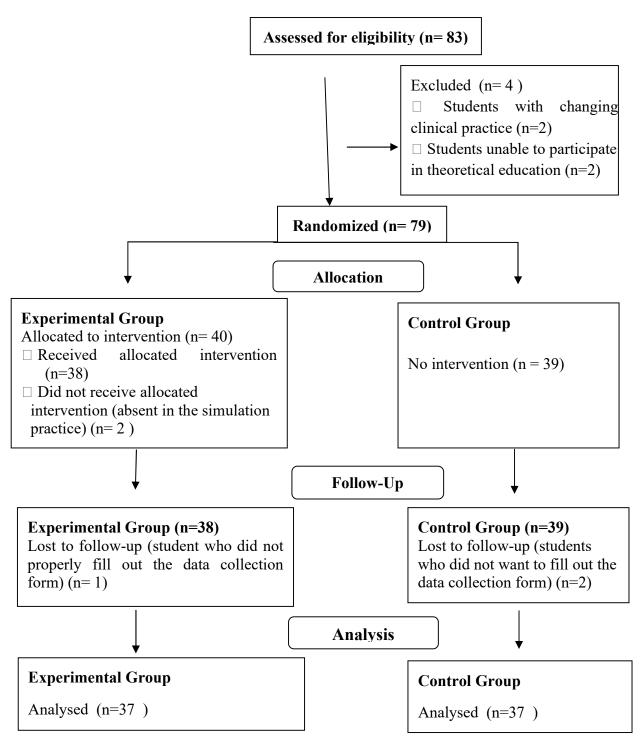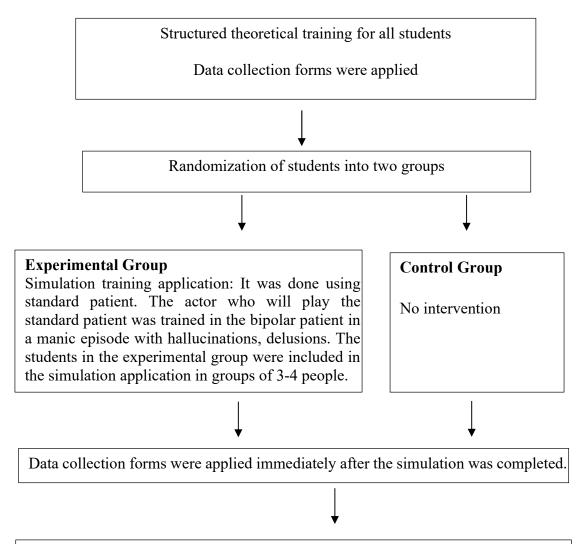
Figures 1: CONSORT 2010 Flow Diagram

```
                    ┌──────────────────────────────────┐
                    │ Assessed for eligibility (n= 83)  │
                    └──────────────────────────────────┘
                                   │
                                   │        ┌────────────────────────────────────┐
                                   │        │ Excluded  (n= 4 )                   │
                                   │        │ □    Students   with   changing     │
                                   ├───────▶│ clinical practice (n=2)             │
                                   │        │ □ Students unable to participate    │
                                   │        │ in theoretical education (n=2)      │
                                   │        └────────────────────────────────────┘
                                   ▼
                    ┌──────────────────────────────────┐
                    │        Randomized (n= 79)         │
                    └──────────────────────────────────┘
                       │                            │
                   ┌───────────────┐
                   │  Allocation   │
                   └───────────────┘
```

Experimental Group
Allocated to intervention (n= 40)
□ Received allocated intervention (n=38)
□ Did not receive allocated intervention (absent in the simulation practice) (n= 2)

Control Group

No intervention (n = 39)

Follow-Up

Experimental Group (n=38)
Lost to follow-up (student who did not properly fill out the data collection form) (n= 1)

Control Group (n=39)
Lost to follow-up (students who did not want to fill out the data collection form) (n=2)

Analysis

Experimental Group

Analysed (n=37)

Control Group

Analysed (n=37)

Figure 2. Flow Chart of the Study

Structured theoretical training for all students Data collection forms were applied

$\downarrow$

Randomization of students into two groups

Experimental Group Simulation training application: It was done using standard patient. The actor who will play the standard patient was trained in the bipolar patient in a manic episode with hallucinations, delusions. The students in the experimental group were included in the simulation application in groups of 3-4 people.	**Control Group** No intervention

Data collection forms were applied immediately after the simulation was completed.

$\downarrow$

The students started their internship in psychiatry clinics after 3 weeks and they did their internship for 4 weeks. Data collection forms were applied on the first day they started their clinical internship and on the last day when the internship was completed.

In our study, it was found that the mean FABI scores of the experimental group of students after the simulation and before the clinical practice were lower than the first assessment, while the mean FABI scores of the control group of students were higher prior to the clinical practice (Table 1). Students experience fear and anxiety before they start psychiatric clinical practices (Ozbaş & Buzlu, 2011). It is considered that higher mean scores of the students who did not participate in the simulation practices are the result of this fear and anxiety.

The use of standardized patients as one of the most frequently used methods among the simulation practices reduces fear and anxiety experienced by nursing students, particularly before their clinical practices. In her study, Kameg (2021) determined that simulation practices with standard patients brought about positive changes on students' attitudes towards psychiatric nursing and mental problems. It is known that students who receive higher scores from the fear

and behaviour intent scale exhibit more negative attitudes towards the mentally disordered patients (Ighodora & Stefanovics, 2015; Kameg et al., 2021; Sideras et al., 2016; Thalheimer & Cook, 2002; Zhu et al., 2018) and they have weaker interactions with the patients in the clinical practice (Sideras et al., 2018). Therefore, practicing with standardized patients prior to the clinical experience is critical both for students and the patients themselves.

Table 1. The Evaluation of Changes in the Mean FABI and CSAS Scores of the Experimental and Control Group of Students and Intragroup Changes during the Program.

	FABI Experimental Mean±SD	Control Mean±SD	CSAS Experimental Mean±SD	Control Mean±SD
First assessment after the theoretical education	26.94±4.60 (a) Mean difference: -0.378	27.32±4.1 (a)	77.21±8.35 (a) Mean difference:1.432	75.78±8.65 (a)
The assessment after the simulation training	20.02±4.59 (b) Mean difference: -4.378	24.04±3.88 (b)	85.00±11.48 (b) Mean difference:8.108	76.89±7.6 (a)
Prior to the clinical practice	20.91 ±5.52 (b) Mean difference:-4.378	25.59±5.51 (a)	84.16±7.02 (b) Mean difference:11.135	73.02±11.49 (a)
After the completion of the clinical practice	22.81±5.58 (b) Mean difference:-4.216	18.59±5.39 (c)	76.43±10.03 (a) Mean difference:8.405	84.83±6.85 (b)
Partial Eta	0.53		0.48	
Test and Significance Value	Group F: 2542.2 **p<0.001** Group*Time F:6.80 **p<0.001** Time F:50.46 **p<0.001**		Group F:8877.5 **p<0.001** Group*Time F:8.095**p<0.001** Time F:7.71 **p<0.001**	

FABI: *Fear and Behavior Intent Scale* , CSAS: *The Communication Skills Assessment Scale,* SD: *Standard Deviation*
 *Two-way repeated-measures analysis of variance *Different letters denote significant changes.

Table 2. The Evaluation of Changes in the Mean STAI-I and STAI-II Scores of the Experimental and Control Group of Students and Intragroup Changes during the Program.

	STAI-I Experimental Mean±SD	Control Mean±SD	STAI-II Experimental Mean±SD	Control Mean±SD
	44.94±4.76 (a)	44.24±4.49 (a)	48.24±4.12 (a)	46.54±4.04 (a)

First assessment after the theoretical education	Mean difference:0.703		Mean difference: 1.703	
The assessment after the simulation training	42.81±4.50 (a) Mean difference:-1.568	44.37±5.44 (a)	44.18±6.57 (b) Mean difference:1.703	42.48±5.82 (b)
Prior to the clinical practice	42.43±5.61 (a) Mean difference:-4.568	47.00±4.31 (b)	47.00±5.30 (a) Mean difference:0.676	46.32±4.97 (a)
After the completion of the clinical practice	41.81±3.94 (b) Mean difference:-2.892	44.70±4.87 (a)	46.16±5.29 (b) Mean difference:0.108	46.05±5.07 (a)
Partial Eta	0.100		0.521	
Test and Significance Value	Group F: 14450.5 p<0.001 Group*Time F: 0.173 p:0.004 Time F:1.946 p:0.130		Group F:8677.9 p<0.001 Group*Time F:1.287 p:0.286 Time F:15.29 p<0.001	

STAI: *State and Trait Anxiety Level* *Two-way repeated-measures analysis of variance *Different letters denote significant changes.

As indicated in Table 1, statistically significant differences between the experimental and control groups were found according to their CSAS mean scores and between the assessments (p<0.001). Communication, the main component of the patient nurse interaction is learned through practices and experiences rather than formal education. It is difficult for students to communicate with the mentally disordered patients and they report that they feel insecure and anxious during their communication with these patients. However, students who receive simulation training believe that they can easily manage this difficult communication, have more willingness to communicate with the patient, and also as the simulation environment has lower environmental pressure compared to the real patient, students are able to use their previous experiences and have more effective communication (Karadag et al., 2020; Martin & Chanda, 2016; Molu & Ozkan, 2023; Oner & Kizilkaya, 2017). The use of standardized patients develops the patient-nurse interaction, contributes team communication, peer communication and increases individuals' communication skills.

It was reported that the complaint evaluation skills and therapeutic communication skills of students who use standardized patients develop better, and there is a decline in their anxiety levels (Farooq et al., 2020; El- Malky et al., 2016; Martın & Chanda, 2016; Zhu et al., 2018).

In this study, the mean STAI-I and STAII scores of students in Table 2 indicate that there is a medium level of anxiety in all assessments and there are also statistical differences among the experimental and control groups as well as in the intragroup level (p<0.001). The use of standardized patients prior to the clinical practice leads to positive changes in the anxiety levels of nursing students (Ellis et al., 2015; Hermanns et al., 2010). Higher anxiety levels reduce students' performance, decrease their perception levels and endanger the security of the patient (El- Malky et al., 2016). Therefore, prior to the clinical practices, it is important to develop strategies to reduce the factors affecting the anxiety levels of the nursing students.

The use of simulation practices used to help approach the individuals with bipolar disorder is an innovative learning method to provide information, ability and experience to the nursing students in a realistic and positive environment. It is observed that standardized patient implementations are critical and play a key role in psychiatric nursing education.

It was found that the training program has a medium size effect on fear and behaviour intentions (0.53), communication skills (0.48) and state anxiety levels (0.528) of the experimental group of students. As a result of the training program, a mild size effect was found in the state anxiety levels (0.100), clinical decision-making skills (0.011) and self-efficacy levels (0.061) of the students in the experimental group. It was determined that these results are compatible with the other findings.

Conclusion and Recommendation: This is recommended for the use of standardized patients in the simulation of psychiatric nursing education: the examination of the simulation impact towards the nursing approach on the patient with bipolar disorder in terms of the variables of analysing the patient; theoretical information; empathy skill and self-confidence; the use of simulation prior to the clinical practice; the use of different simulation methods; and conducting comparative studies with different diagnoses.

Limitations: This study was conducted with university students from the Department of Nursing. Students who received simulation training studied only one case as it was considered that an increase in the case number would increase the contributions of the simulation. The interaction between the verbal and non-verbal behaviors of the actor working as a standard patient and the student may negatively affect the students' opinions towards the psychiatric patient. This can be considered a limitation of the research as it may affect the research results.

References

Amsalem, D., Gothelf, D., Soul, O., Dorman, A., Ziv, A., Gross, R. (2020). Single-Day simulation-based training improves communication and psychiatric skills of medical students. *Front Psychiatry.* 11; 221. https://doi.org/10.3389/fpsyt.2020.00221

Brown, A. M. (2015). Simulation in under graduate mental health nursing education: A literature review. *Clinical Simulation in Nursing.* *11*(10);445-449. https://doi.org/10.1016/j.ecns.2015.08.003

Durmaz Edeer, A., Sarikaya, A. (2015). Adaptation of clinical decision making in nursing scale to undergraduate students of nursing: the study of reliability and validity. *International Journal of Psychology and Educational Studies. 2*(3);1-9.

El- Malky, M.İ., El- Amrosy S. H. (2016). Effects of psychiatric nursing clinical simulation experience on students' anxiety, therapeutic communication skills and psychiatric nursing assessment. *Journal of Nursing and Health Science (IOSR-JNHS). 5*(5):63-71.

Ellis, D. M., Brou, R., King, R, et al. (2015). Psychiatric simulation on a budget. *Clinical Simulation in Nursing. 11*(11);469-471.

Farooq, S., Tharani, A., Begum, S., Parpio, Y. (2020). Implementation of simulation: A contemporary strategy to enhance clinical skills of undergraduate students in mental health nursing. *Issues in Mental Health Nursing.* *41*(8):736-740. https://doi.org/10.1080/01612840.2019.1710011.

Gozum, S., Aksayan, S. (1999). Construct validation of Turkish form of the self efficacy scale; the relationship between self efficacy perception of cope with stress. *Journal of Nursology. 2*(1);21-34.

Gunay Molu, N., Ozkan, B. (2018). Adaptation into Turkish of fear and behavioral intentions scale. *Anatolian Journal of Psychiatry. 19*(2);80–86.

Hermanns, M., Lilly, M. L., Crawley, B. (2010). Using clinical simulation to enhance psychiatric nursing training of baccalaureate students. *Clinical Simulation in Nursing. 7*;41-46.

Hillier, M., Williams, T. L., Chidume, T. (2020). Standardization of standardized patient training in medical simulation. https://www.ncbi.nlm.nih.gov/books/NBK560864/

https://www.ncbi.nlm.nih.gov/books/NBK590048/ Accessed February 08 2024.

Hwang, W. J., Kim, J. A. (2020). Development and evaluation of a home-visit simulation scenario for elderly people with diabetes mellitus who live alone. *J Community Health Nurs.* *37*(2);89-102.

https://doi.org/10.1080/07370016.2020.17363
99

Ighodora, A., Stefanovics, E. (2015). An assessment of attitudes towards people with mental illness among medical students and physicians in Ibadan, Nigeria. *Acad Psychiatry.* 39:280–285. https://doi.org/10.1007/s40596-014-0169-9

Kameg, K., Howard, V. M., Clochesy, J., et al. (2010). The impact of high fidelity human simulation on self-efficacy of communication skills. *Issues in Mental Health Nursing.* 31:315–323.

Kameg, B., Fradkin, D., & Lee, H. (2021). Effect of standardized patient simulation on nursing students' attitudes toward psychiatric nursing and patients with mental health problems. *Journal of Psychosocial Nursing and Mental Health Services.* 59(8);15-21. https://doi.org/10.3928/02793695-20210513-01

Karadag, M., Sisman, N. Y., Caliskan, N. (2020). Use of standardized patient in nursing education: A systematic review. Journal of Surgical Operating Room Sterilization Infection Control Nursing. 1(2):12-37.

Korkut, F. (1996). Development of Communication Skills Assessment Scale: Reliability and Validity Studies.*Turkish Psychological Counseling and Guidance Journal.* 2(7);18-23.

Koukourikos, K., Tsaloglidou, A., Kourkouta, L., Papathanasiou, I. V., Iliadis, C., Fratzana, A., Panagiotou, A. (2021). Simulation in clinical nursing education. *Acta Informatica Medica.* 29(1);15. https://doi.org/10.5455/aim.2021.29.15-20

Martin, C. T., Chanda, N. (2016). Mental health clinical simulation: Therapeutic communication. *Clinical Simulation in Nursing.* 12(6);209-214. https://doi.org/10.1016/j.ecns.2016.02.007

Molu, N. G., Ozkan, B. (2023). Simulation and standard patient used in psychiatric nursing education: systematic review. *International Academic Research and Reviews in Health Science*s. 173.

Oner, H., Kizilkaya, M. (2017). Perceptions of competence on clinical application of mental health and psychiatric nursing class. Journal of Anatolia Nursing and Health Sciences. 2017;20(1):22-33. https://dergipark.org.tr/tr/download/article-file/290309

Oner, N. (1997). Psychological Tests Used in Turkey. Istanbul: Bogazici University Press.

Ozbas, D., Buzlu, S. (2011). The ideas of the nursing students about psychiatric nursing lesson and roles of psychiatric nurse. *Journal of Anatolia Nursing and Health Sciences.* 14(1);31-40. https://dergipark.org.tr/tr/download/article-file/29494

Ozkan, B., Molu, N. G. (2017). Simulation usage models in psychiatric nursing teaching. *Mersin University Journal of Health Sciences.* 10(3);219-227.

Pasklinsky, N., Latimer, B. (2024). Simulation modalities for undergraduate nursing education. *Comprehensive Healthcare Simulation: Nursing.* 27-33.

Qusdhoorn, A., Sinclair, B. (2015). Using unfolding simulations to teach mental health concepts in undergraduate nursing education. *Clinical Simulation in Nursing.* 11;396-401.

Sideras, S., McKenzie, G., Noone, J, et al. (2015). Impact of a simulation on nursing students' attitudes toward schizophrenia. *Clinical Simulation in Nursing.* 11(2);134-141.

Szpak, J. L., Kameg, K. M. (2013). Simulation decreases nursing student anxiety prior to communication with mentally ill patients. *Clinical Simulation in Nursing.* 9(1);13-19.

Terzioglu, F., Kapucu, S., Ozdemir, L., et al. (2012). Nursing students' opinions about simulation method. *Hacettepe University Faculty of Health Sciences Nursing Journal.* 16-23. https://dergipark.org.tr/en/download/article-file/88610

Thalheimer, W., Cook, S. (2002). How to calculate effect sizes from published research articles: A simplified methodology. A part of book. Retrieved from 2002.

Wolf, G., Pathare, S., Craig, T., et al. (1996). Community knowledge of mental illness and reaction to mentally ill people. *British Journal of Psychiatry.* 168:191-198.

Zhu, Y., Zhang, H., Yang, G., Hu, X., Liu, Z., Guo, N., He, H., Sun, B., et al. (2018). Attitudes towards mental illness among medical students in China: Impact of medical education on stigma. *Asia-Pacific Psychiatry.* 10(2);1-7. https://doi.org/10.1111/appy.12294

Øgård-Repål, Å. K., De Presno, M. F. (2018). Simulation with standardized patients to prepare undergraduate nursing students for mental health clinical practice: An integrative literature review. *Nurse Educ. Today.* 66;149-157. https://doi.org/10.1016/j.nedt.2018.04.018