Effects of psychiatric nursing Clinical Simulation Experience on Students' Anxiety, Therapeutic Communication Skills and Psychiatric nursing Assessment

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Abstract

Background: "The simulation strategy was a formative experience designed to introduce students to Psychiatric assessment while concurrently providing a forum to practice therapeutic communication. It replicated common patient diagnoses that students would encounter during their psychiatric clinical rotation". The aim of the study was to evaluate the effects of psychiatric nursing clinical simulation experience on nursing students' anxiety, therapeutic communication skills and psychiatric assessment. Quasi-experimental design (experimental group and control group) was used to achieve the purpose of the study. This study was conducted at Meet Khalaf and Tanta Psychiatric Hospitals and faculty of nursing Menofiya University. A purposive sample of (n = 104) from undergraduate psychiatric nursing student enrolled in psychiatric nursing course second semester academic year 2016. Four tools for data collection as; Structured interview questionnaire, The depression, anxiety and stress scale, Psychiatric Assessment rubric scale and Therapeutic Communication skill were used. Results reveals that there is a highly significant reduction in the mean score of total anxiety among experimental group compared to control group. There is a highly significant increase in the mean score of student’s psychiatric assessment and student’s communication skill among experimental group compared to control group. Based on the findings of the current study, it can be concluded that: simulation has great positive effect on decreasing student’s level of anxiety, improving communication skills and competence in psychiatric assessment. Based on the findings of the present study, the following recommendations are suggested: Integrate simulation in psychiatric nursing course to: Decreasing student’s anxiety, Improving student’s communication skills and improving student’s psychiatric assessment

Keywords: Simulation, psychiatric assessment, communication skills, Anxiety

I. Introduction

"Nursing students traditionally learn psychiatric assessment in the classroom. The students’ are expected to transfer that knowledge to the clinical setting where their ability to transfer knowledge-to-practice is evaluated by expert clinical staff. This approach can be problematic as the staff-to-student ratio does not allow for constant one-on-one supervision and the novice student potentially could disregard key assessment findings. Evaluation of the faculty for student performance based on secondhand reports from nursing staff and the lack of consistent teaching and evaluation opportunities potentiates the theory-to-practice gap. Many students complete the clinical rotation with substandard assessment skills."[1].

"Nursing students experienced anxiety and fear of establishing relationships with psychiatric patients due to lack of professional knowledge about mental illness and skill to take care of the patients. Anxiety in undergraduate nursing students in the clinical setting is caused by many factors, including fear of harming patients, unsupportive relationships, difficulty transitioning. This has negative effects which include compromised student learning, decreased clinical performance, increased risk for patient harm, and a long term effect of worsening of the nursing shortage. The issue of student anxiety in the clinical setting must be addressed by nurse educators. Implementing the use of standardized patients (SPs) is one strategy that may minimize anxiety while preparing students to enter the clinical setting"[2].

"The simulation education is known as an effective teaching-learning method since being performed in a non-threatening environment similar to clinical setting"[3]."it is a technique or device that attempts to create characteristics of the real world. According to the Oxford Dictionary, the word simulate is defined as “to reproduce the conditions of (a situation), as by means of a model, for study or testing or training” [4]."Simulation can be used to overcome variable experience and lack of exposure to certain conditions encountered with clinical attachments and provides the opportunity to present rare, complex or anxiety-provoking scenarios to students in a safe and contained environment"[5]."Simulating patients through role play between learners and educators is commonly used in nursing education. Students are given a role to play in the scenario, and roles are rotated to assure equalization of experience opportunities" [6]."Role play is defined as
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"an experiential learning technique with learners acting out roles in case scenarios to provide targeted practice and feedback to train skills. In nursing education, roles may include patient, nurse, family member, other health care professionals, unlicensed assistive staff members, and/or observer/recorder. Physical assessment skills, history taking, and communication techniques are often taught using student pairs."[7].

"Simulation in nursing education at any level offer several advantages. First, it enables nurses to train without the stress of patient harm, treatment error, or omission. Second, it allows for larger numbers of students to experience controlled learning situations than is possible in actual clinical environments."[8]"Finally, it improve students’ knowledge base, critical thinking, nursing process and interventions, communication, socialization and self-evaluation. Students maintain the majority of their clinical hours, but have these pre-practice experiences that enhance their integration of classroom learning and clinical performance, ultimately improving patient care"[6].

"Simulation allows nursing students to practice communication, delegation, management and safety with an understanding of the disease process"[9]. "Simulation is useful in improving communication with patients, healthcare team, and increased student’s confidence in communication. It is a process which can enable the nurse to establish a human-to-human relationship and thereby fulfill the purpose of nursing, namely, to assist individuals and families to prevent and to cope with the experience of illness and suffering and, if necessary, to assist them to find meaning in these experiences of illness and suffering and, if necessary, to assist them for use in psychiatric nursing"[10] and[11].

II. Significance of the study

"Many student nurses in the mental-health clinical setting reported high levels of anxiety, feelings of inadequacy and feared that they would not respond appropriately to the patient’s concerns and harming the patient after witnessing patient behaviors in the psychiatric setting"[12]. "Many prelicensure student nurses are unprepared for the unique challenges of clinical practice in the psychiatric setting" [13]. "Simulation can be used to overcome variable experience and lack of exposure to certain conditions encountered with clinical attachments" [5]. And provides the opportunity to present rare, complex or anxiety-provoking scenarios to students in a safe and contained environment. Providing students with positive experiences and supportive role models during their psychiatric mental-health clinical rotation potentially can change the way nurses of the future respond to individuals with mental illnesses.

Operational definitions:

Anxiety in this study can be operationally defined by the obtained score of anxiety measured by[14]. Therapeutic communication skill in this study can be operationally defined by the obtained score of communication skill measured by[15]
Psychiatric assessment in this study can be operationally defined by the obtained score of psychiatric assessment measured by[15].

Subjects and methods

The purpose of this study was to evaluate the effects of psychiatric nursing clinical simulation experience on nursing students’ anxiety, therapeutic communication skills and psychiatric assessment

Research hypothesis: psychiatric nursing simulation application will reduce anxiety score, and improve communication skills and psychiatric assessment scores among psychiatric nursing students' experimental group than control group

Research design: -Quasi-experimental design (the experimental group and control group) was used to achieve the aim of the study

Research setting: -The study was conducted at faculty of nursing Menofiya University.

Subjects: -Apurposeful sample of \( n = 104 \) from undergraduate psychiatric nursing student enrolled in psychiatric nursing course second semester academic year 2016. Participants were divided randomly into two groups (experimental group \( n = 50 \) and control group \( n = 54 \)).

Tools of the study

Four instrument for data collection were used for both group as the following:-

(1): Semi-structured interviewing questionnaire: to assess socio-demographic characteristics of the students and different diagnosis of their assigned patients

(2): Depression, anxiety and stress scale

The DASS scale was originally developed by[16]. Translated into Arabic and modified by [15] to measure the negative emotional states of depression, anxiety and stress. It includes three self-report sub-scales. Each of the three sub scales contains 14 items for measuring, depression, anxiety and stress. The researcher uses only anxiety subscale. The anxiety scale assess autonomic arousal, skeletal muscle effects, situational anxiety,
and subjective experience of anxious affect. Subjects are asked to use 3-point severity/frequency responses range from: did not apply to me at all, to apply to me very much, or most of the time, in order to rate the extent to which they have experienced each state over the past two to three weeks. Scores for anxiety are calculated by summing the scores for the relevant items. The total score ranges from 14-42. The higher score indicates negative emotional status.

Scoring system:
- Sore less than 22 mean no anxiety
- Sore from 22 to 29 mean mild anxiety
- Score from 30 to 36 mean moderate anxiety
- Score from 36 to 42 mean high anxiety

**Tool (3): Psychiatric Assessment rubric scale**

*Psychiatric Assessment scale was developed by [15]. To measure psychiatric assessment skill, the content of the psychiatric assessment rubric represent skills needed to conduct a psychiatric assessment. The rubric consisted of 20 essential assessment behaviors modified by the researcher to be 24 divided into seven categories (Introduction, Patient History, Symptoms, Mental Status, Social Support, and Situation, Background, Assessment, and Recommendation (SBAR)). Student performance was rated using a scale from 1 (not met) to 4 (competent). Total scores were obtained the higher score mean higher competence in psychiatric assessment.*

Scoring system:
- Score less than (37) mean poor competent in psychiatric assessment
- Score from (37 to 61) mean mild competent in psychiatric assessment
- Score from (62 to 85) mean moderate competent in psychiatric assessment
- Score from (86 to 96) mean high competent in psychiatric assessment

**Tool (4) Therapeutic Communication skill**

*Therapeutic Communication rubric was developed by [15] To measure communication skill. It consists of 18 items. It divided into 10 items for therapeutic communication and 8 items for non-therapeutic communication. The score response were in the form of 3-point likrt scale (0, poor; 1, sometimes good; 2, almost always good).*

Scoring system for total communication skill:
- Score Less than 10 mean poor
- Score from 10 to 19 mild mean mild
- Score from 20 to 28 mean moderate
- Score from 29 to 36 mean high

**Content validity:**

Before starting, the data collection tools were translated into Arabic and tested for its content validity by a group of experts in psychiatric nursing to check the relevance, coverage of the content and clarity of the questions. The required modification was carried out accordingly.

**Reliability:**

- Test-retest reliability was applied for tool (2). The tool proved to be reliable (r = 0.79).
- Test-retest reliability was applied for tool (3). The tool proved to be strongly reliable (r = 0.8222).
- Test-retest reliability was applied for tool (4). The tool proved to be strongly reliable (r = 0.80)

**Procedure**

Approval was obtained from dean of the faculty of nursing, Menoufia University after explaining the purpose of the study. The questionnaire used in this study was administered by the researcher. The students were informed about the purpose of the study and encouraged and give full informed verbal consent to participate, students were informed about the privacy of their information, the study was voluntary, harmless, and anonymous and confidentiality of responses would be respected and they have the full right to refuse to participate in the study at any time and they informed that the data would be used only for scientific purpose. Pilot study was carried out on 10 students to test the clarity, feasibility, consistency of the study tool, and time needed for data collection. No modifications were needed as revealed from the pilot study. The sample of pilot study was excluded from the total sample to assure the stability of the results.

**Data collection:**

The study was carried out in the period from February 2016 over a period of one months. The researcher divided the students into four groups, each group consisted from 12-14 students. The researcher collected the data during the morning 2 days per week from 9 AM to 1 PM. The implementation of the study passed into three phases (pre assessment phase, implementation phase, and post assessment phase).
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Pre assessment phase:-
A comfortable, private place was chosen for the interviewers. Orientation was done about the purpose of the study and content of the study. Each student was individually interviewed where pre assessment was done using structured interviewing questionnaire..

Implementation phase:-
This study hypothesized that psychiatric nursing simulation will decrease student’s anxiety score, improve communication skills score and psychiatric assessment competence score in experimental group than control group. This psychiatric nursing clinical simulation has a general objective and divided into 8 sessions given only to experimental group. Each session lasted for two hour and has a set of specific objective. This was achieved through several teaching methods as brain storming, group discussion; role playing in a pair two students one act as patients and the other as students, data show, picture, laptop and posters were used as media. At the end of each session summary, feedback, further clarification was done for vague items and homework activity for the following session.

General objective of the simulation:-
The study aimed at evaluating the effect of psychiatric nursing simulation on student’s anxiety, therapeutic communication skill and psychiatric nursing assessments

This aim will be fulfilled through the following objectives –
Assess students’ anxiety, student’s communication skill and student’s psychiatric assessment competence. - Develop and implement psychiatric clinical simulation for the student’s prior clinical experience. - Evaluate the effect of psychiatric nursing simulation on student’s anxiety, therapeutic communication skill and psychiatric assessments competence

Content of the simulation session:-
Session 1, 2: simulation about therapeutic communication and how to practice effective communication
Session 3, 4: Simulation about assessment of depressed patients and how incorporate critical thinking in practice of nursing process for depressed patient
Session 5, 6: Simulation about assessment of manic patients and how incorporate critical thinking in practice of nursing process for manic patient
Session 7, 8: Simulation about assessment of patients with substance abuse and how incorporate critical thinking in practice of nursing process for substance abuse patient.

Post assessment phase:-
Evaluation was done using interviewing questionnaire, anxiety scale, communication skills scale and psychiatric assessment competence scale to evaluate the effect of psychiatric nursing simulation on student’s anxiety, communication skills and psychiatric assessment competence

Data Analysis:
Data was coded and transformed into specially designed form to be suitable for computer entry process. Data was entered and analyzed by using SPSS version 16. Graphics were done using Excel program .Quantitative data were presented by mean (X) and standard deviation (SD). Qualitative data were presented in the form of frequency distribution tables as number and percentage. It was analyzed by chi-square (χ2) test. Person correlation(r test) were used to test the association between the variable .Level of significance was set as P value <0.05 for all statistical tests.

III. Results
Table (1): shows that the mean age of the studied sample are 21.4±0.67 for experimental group and 21.6±0.73 for control group. The majority of the studied sample are female and single Table (2): reveals that the majority of the studied sample their assigned patients are schizophrenia60% in experimental group and 70.4% in control group. Figure (1): illustrates that there is a highly significant reduction in the mean score of total anxiety among experimental group compared to control group. Figure (2): clarifies that there is a highly significant increase in the mean score of student’s psychiatric assessment among experimental group compared to control group Figure (3): represent that there is a highly significant increase in the mean score of student’s communication skill among experimental group compared to control group Table (3): illustrate that there is a negative significant correlation between total mean score of student’s anxiety and total mean score of students’ communication skills as well as there is a negative significant correlation between total meanscore of student’s anxiety and total mean score of students’ psychiatric assessment .negative correlation mean when anxiety decrease student’s communication skill and psychiatric assessment improve. Table (4): represent that there is highly significant difference between total mean score of students’ anxiety and their socio demographic data as gender and marital status among control group while no statistical significant difference between total mean score of anxiety and socio demographic data as gender and marital status among experimental group, this indicate the effect of simulation on anxiety score among experimental group students. Regarding the diagnosis of their assigned patient there is no statistical significant difference between totalmean
score of student’s anxiety and the diagnosis of their assigned patients among control group while there is statistical significant difference in the mean score of total anxiety among experimental group Table (5):show that there is no statistical significant difference between students’ psychiatric assessment total mean score and their assigned patient’s diagnosis in experimental group as well as control group. Table (6):clarifies that there is statistical significant difference between students’ communication skill total mean score and there assigned patient’s diagnosis in experimental group at.05as well as control group at.003 .While there is no statistical significant difference between students’ communication skill total mean score and their socio demographic characteristics’ as gender and marital status in experimental group and control group except marital status among control group show significant difference.

Results

Table (1): Sociodemographic characteristics of studied sample (N=104):

<table>
<thead>
<tr>
<th>Socio demographic characteristics</th>
<th>Cases (N=50)</th>
<th>Control (N=54)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age/years: (X ±SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Female</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital state:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>Married</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Table (2): Different diagnosis of the student’s assigned patients

<table>
<thead>
<tr>
<th>Clinical characteristics</th>
<th>Cases (N=50)</th>
<th>Control (N=54)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>Depression</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Mania</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

Figure (1) Effect of simulations on total score of students’ anxiety among experimental group compared to control.
Figure (2): Effect of simulations on total score of students’ psychiatric assessment among experimental group compared to control.

Figure (3): Effect of simulations on total score of students’ communication skill among experimental group compared to control group.

Table (3): Parson Correlation between student’s total score of anxiety, total score of communication skills and total score of psychiatric assessment.

<table>
<thead>
<tr>
<th>Studied variables</th>
<th>Anxiety</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Psychiatric assessment</td>
<td>-0.680</td>
<td>0.001(HS)</td>
</tr>
<tr>
<td>Communication skills</td>
<td>-0.722</td>
<td>0.001(HS)</td>
</tr>
</tbody>
</table>

Table (4): Relationship between total score of anxiety and both socio demographic characteristics of the students and the diagnosis of their assigned patients.

<table>
<thead>
<tr>
<th>Socio demographic characteristics</th>
<th>Anxiety Cases (N=50)</th>
<th>t-test p value</th>
<th>Anxiety Control (N=54)</th>
<th>t-test p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16.0±2.82</td>
<td>0.83</td>
<td>18.5±0.70</td>
<td>3.42</td>
</tr>
<tr>
<td>Female</td>
<td>17.8±3.06</td>
<td>0.41(NS)</td>
<td>33.7±6.25</td>
<td>0.001(HS)</td>
</tr>
<tr>
<td>Marital state:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### IV. Discussion

"Simulation has been shown to be more enjoyable and effective in improving clinical skills than didactic teaching. Simulation can be used to overcome variable experience and lack of exposure to certain conditions encountered with clinical attachments and provides the opportunity to present rare, complex or anxiety-provoking scenarios to students in a safe and contained environment\[17\]. So, the purpose of the study was to investigate the effects of a psychiatric nursing clinical simulation experience on nursing students' anxiety, therapeutic communication skills and psychiatric assessment.

The result of the present study reveals that both group, experimental group and control group had anxiety this could be due to lack of experience regarding working with mental patients and the effect of media which represent the mental patients by frightening way this was consistent with [18] and [19]. Who found that "student nurses’ anxiety increased exponentially prior to a psychiatric clinical rotation", also with [15] who reported that "Review of the self-report anxiety questionnaire indicated a high degree of anxiety related to working with mentally ill patients". The present study found that there is a significant reduction in the mean score of total anxiety among experimental group compared to control group. This indicates the effectiveness of simulation on student's emotion. This was in the same line with this result of [20] who indicated that "the use of high-fidelity human simulation aid in decreasing nursing students' anxiety prior to communicating with patients experiencing mental illness" in addition [15] added that "simulation increase participants' self-confidence and decreased their anxiety". The current study showed that there is a significant increase in the mean score of student's psychiatric assessment among experimental group compared to control group. This indicates "the effectiveness of simulation on student’s psychiatric assessment and could also be due to instructors support and...
reassurance during assessment”. This was supported by [15], who reported that “results from the psychiatric assessment rubric indicated that, on average, both groups showed statically significant improvement in assessment skills”. The current study showed that there is a negative significant correlation between total mean score of student’s anxiety, total mean score of students ‘communication skill as well as students’ psychiatric assessment. Negative correlation mean when anxiety decrease student’s communication skill and psychiatric assessment improve. This could be due to the effect of anxiety on the student’s perception, attention and concentration. This was in consistent with [2], who stated that “Anxiety in undergraduate nursing students has negative effects on student learning, decreased clinical performance, communication skills and a long term effect of worsening of the nursing shortage”.

“Practicing communication skills through simulation in a clinical learning laboratory allows students to practice and test skills in a safe, non threatening environment and faculty to evaluate and provide feedback to the students” [21]. The result of the present study revealed that there is a significant increase in the mean score of student’s psychiatric assessment and communication skill among experimental group compared to control group under effect of simulation. This results reflected that patients’ simulations training are successful in improving communication, increasing nursing skills. This result was supported by [19], who concluded that “simulations helped students learn communication techniques, understanding classroom material, developing critical thinking, and facilitating teamwork”. Also [22], provided evidence that “simulation is a strategy useful in training interdisciplinary teams to collaborate and communicate effectively”. In addition [15], found that “the comparison of the means for the therapeutic communication rubric indicated that the in simulation group had a greater change in performance than the post simulation group. The decreased use of nontherapeutic communication was greater for the treatment group as compared with the post simulation group”.

V. Conclusions

Based on the results of the current study, it can be concluded that: simulation has great positive effect on decreasing student’s level of anxiety, improving communication skills and competence in psychiatric assessment.

VI. Recommendations

Based on the findings of the present study, the following recommendations are suggested:

Integrate simulation in psychiatric nursing course to:

A- Decreasing student's anxiety
B- Improving student’s communication skills
C- Improving student’s psychiatric assessment

References

[15]. debrayhugaylle (2015) effects of a mental-health clinical simulation experience using standardized patients and two debriefing styles on prelicensure nursing students' knowledge, anxiety, and therapeutic communication and psychiatric assessment skills. A

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[20]. Janene Luther Szpak and Kirstyn M. Kameg (2013) Simulation Decreases Nursing Student Anxiety Prior to Communication With Mentally Ill Patients Volume 9, Issue 1, Pages e13–e19. 2013 International Nursing Association for Clinical Simulation and Learning. Published by Elsevier Inc. All rights reserved.
