Effect of Psycho- Educational Program about Violence on Nurses' Knowledge and Practice

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Abstract

Background: Violent behavior of psychiatric patients is a public health problem. It presents obvious risks of injuries or death of assailants and their victims. Aim: this study aimed to evaluate the effect of the psycho-educational program about violence on nurses' knowledge and practice. Design: A quasi- experimental research design was utilized in this study. Setting: The study was conducted at Tanta Psychiatric and Mental Health Hospital affiliated to ministry of health and population. Tanta city, Algharbya Governorate, Egypt. Subject: A sample of 50 randomly selected psychiatric nurses were recruited for this study. Tools: Two tools were used to collect data; tool I part1: socio-demographic characteristics for nurses, part2: Structured Nurse's Knowledge Questionnaire. Tool II: Observational Checklist for Nurses' Practice Related to Patient Violence. Results: The main result of this study revealed, highly significant improvement in nurses' level of knowledge and practices toward violent patient after implementation of psycho-educational program. Also, there were statistically significant positive correlation between nurses' level of knowledge and level of practice related to psychiatric patients' violence immediately after and 3 months after implementation of the educational program where \( r =0.861, P=0.019 \) \( r =0.418, P= 0.003 \) respectively. But, there were no statistically correlation between nurses' level of knowledge and practice related to violence before implementing the program as \( r = 0.180, P= 0.211 \). Conclusion: The present study concluded that, the educational program sessions played an important role in improvements of nurses' level of knowledge and practices toward violent patient. Recommendations: This study recommended implementing further educational program for nurses concerning the pattern of communication and behavioral management for violent patients is very important. Key words: Educational Program, Violence, Nurses' Knowledge, Nurses' Practice.
Introduction

Violence is one of the most difficult problems facing psychiatric nursing in recent years. Violent behavior has been identified as a national health concern and a priority for intervention in the United States, where occurrences exceed 2 million per year\(^{(1-3)}\). Psychiatric nurses have a higher chance of being the first professionals in contact with violent patient. Thus they should be able to identify them and discontinuing the cycle of violence\(^{(4)}\).

Violence has been defined as any act, word, even attitudes such as an intimidating facial expression, that creates fear or negative feelings, leading to physical or psycho-social unwanted results. Violence also can be defined as any actions, or inaction, premeditated and done consciously or unconsciously, with the intention to harm, whether physically, emotionally, psychologically, or spiritually\(^{(5)}\). It is a multifaceted problem, which may take on several forms such as verbal abuse, physical assaults, aggression, harassment, bullying, intimidation, threatening\(^{(1)}\).

Physical, verbal violence and sexual harassment are the major types of violence reported in psychiatric setting\(^{(6,7)}\). Regarding the risk factors for violence, it was founded that, the risk of future violence increases linearly with the number of past violent events, a history of impulsivity, male gender, young adulthood, lower intelligence, history of head trauma or neurological impairment, dissociative states, history of military service and weapons training. Also, diagnoses of major mental illness, persecutory delusions, command hallucinations, treatment non adherence, and also, depression, hopelessness, suicidality and feasibility of homicidal plan are risk factors for violence\(^{(8)}\).

Studies of violence in psychiatric hospitals indicate that violence in healthcare settings is significant and needs to be stopped\(^{(9)}\). It is vital to nurses that, hospitals adopt prelisted protective factors for violence\(^{(10)}\). These factors includes providing security, assessment and documenting the risk of violent behavior of patients, alarm systems\(^{(11)}\), providing fair assignments, and restricting public access during providing care for patients; improving security systems and measures, restricting public access, and controlling visiting times\(^{(12)}\), security officers, camera systems, a closed-door policy; and adequate staff numbers are very helpful in dealing with violence\(^{(6,12,13)}\).

There are numerous consequences of violence on nurses, most of these consequences considered psychological consequences, that may include becoming
suspicious, feeling anger, embarrassment, depression, lack of nurses’ safety all the time in the work place; fear or stress; becoming anxious; being super-alert or watchful and on guard; and post traumatic stress disorders symptoms. Psychiatric nurses are the first clinical staff to make contact with patients and their families, and keep close relationships with them. Accordingly, the nurses should have the knowledge and skills of emergency care, as well as evaluate the precise circumstances, and determine cases of physical, sexual, or violent behavior and injury and provide appropriate nursing, and legal services to the patients. Also, nurses should be particularly sensitive to the violent client's need to feel safe, secure, and in control of his or her body. They should take care to maintain the client's personal space, assess the client's anxiety level, and ask permission before touching him or her for any reason, and nurses should apply these cautions to all clients in the mental health setting.

Many nurses have not been trained to manage explosive situations. So, violence threatens the welfare of the psychiatric patients, staff and visitors alike. Accordingly, psychiatric nurses need to be skillful in violence assessment to assist in prevention and implementation of various strategies, identify indicators of violence at patients’ first point of contact with the health system, learn breakaway techniques to promote personal safety, self-defense techniques, and ways to avoid provoking patients. Other essential skills include assessment of the environment for hazards, escape routes, effective communication strategies and skills, assertiveness techniques, conflict resolution, stress and anger management. Therefore, this study provides the baseline data, based on the psycho educational program for nurses can be developed to correctly identify violent situations and provide effective intervention.

Aim of the study: The aim of this study was to evaluate the effect of the psycho-educational program about violence on nurses' knowledge and practice.

Research hypothesis: Level of knowledge and practice of psychiatric nurses’ increased after implementing the psycho-educational program about violence.

Subjects & Method

Research design: A quasi-experimental research design was used in this study.

Research setting: The study was conducted at Tanta Mental Health Hospital affiliated to the Ministry of Health and Population. It has a capacity of 65 beds divided into four wards two
wards for females and two wards for males. It also provides health care services to three governments, namely Gharbya, El-Menofeya, and Kafr-El-sheikh. Tanta city, Algharbya Governorate, Egypt. It works 7 days/week, 24hrs/day.

**Subjects:**
A sample of 50 psychiatric nurses (calculated using Epi-Info software) 20 of them work in female ward, and 30 nurse works in male ward, they were selected randomly for this study. These subjects fulfilling the following criteria:
- Willing to participate in the study.
- Provide direct care to psychiatric patients.
- Have previous experience in psychiatric field.
- Both sex.

**Tools of the study:**
The data of this study was collected using the following tools:

**Tool I: Structured Nurse's Knowledge Questionnaire**, it divided into two parts

**Part one: Socio-demographic characteristics for nurses:** Which includes, nurses' name, age, sex, level of education, years of experiences, marital status, residency.

**Part two: Structured Nurse's Knowledge Questionnaire:**
This questionnaire was developed by **Mohammed (2001)**\(^{(27)}\) to assess nurse's knowledge regarding psychiatric patients' violence. The validity and reliability of this tool was done by the original researcher it was (0.97%). The questionnaire consisting of 23 questions, there are three responses for each question: incorrect (0), partially correct (1), and completely correct (2). It includes group of questions to assess the nurse's level of knowledge related to:
- Knowledge about nature of violence, it included: the meaning, high risk factors and knowledge about most common diseases associated with violence (4 items),
- Knowledge about behavior, and predictable signs of violence (3 items),
- Knowledge about patient's needs and methods of prevention of violence (4 items),
- Knowledge about treatment of violence: types, indications, and purposes (4 items),
- Identifying the role of nurse towards therapeutic environment, seclusion and restraint (7 items),
- Information related to basic items in recording violence (1 items).

**Scoring system:**
Evaluation of this questionnaire was as follows:
- Less than 50% = Poor knowledge about violence
- From 50 – 75% = Fair knowledge about violence
- More than 75% = Good knowledge about violence (27)

**Tool II: Observational Checklist for Nurses’ Practice Related to Patient Violence.**

It was developed by the researcher(2, 28-32) to assess the nurse's practice in dealing with patients' violence. There are two responses for each question: done (1) not done (0). The questionnaire includes 30 items grouped into 5 subscales, namely:

- Acceptance of the patient as a human being (8 items),
- Use of therapeutic communication skills (9 items),
- Reduce environmental stimuli (2 items),
- Maintain safety environment (5 items),
- Help patient to learn self-control behavior (6 items).

**Scoring system:**

Every nurse can receive scores ranging from minimum (0), and maximum (30) grades classified as follows:

- Less than 65% = unsatisfactory practice in dealing with patients' violence.
- More than 65% = satisfactory practice in dealing with patients' violence.

**Method**

The following steps were followed in this study:

1. This study was approved by the research and ethical committee at faculty of nursing, Tanta University.
2. An official letter was obtained from faculty of nursing, Tanta University to the director of Tanta Mental Health Hospital to obtain his permission for data collection. The director was informed about the goal of the study, the date and time of data collection before permission.
3. **Ethical consideration.**
   - Informed consent to participate in the study was obtained from the nurses after explanation of the purpose of the study.
   - Assure the participants about their privacy and confidentiality of the obtained data, and it used only for the purpose of the study.
   - The participants were informed that they have the right to withdraw from the study at any time if they want.
4. **Preparation of tools**
   - Observational Checklist for Nurses' Practice Related to Patient Violence (Tool II) was developed by the researcher after reviewing the literature, (2, 28-32) and was translated
into Arabic language by the researcher.

- Tool (II) was tested for content validity by a jury of five experts in the field of psychiatric nursing and was proved to be valid.

- Before embarking in the actual study, a pilot study was carried out on 10% of the subjects (5 nurses) after taking their oral approval and explanation the purpose of the study to ascertain the clarity and applicability of the study tools and to identify obstacles that might be faced during data collection. After collecting pilot study, it was found that each nurse require 25-30 minutes to fulfill study tools and no modification was done for all tools. It was applicable and clear to nurses in pilot study. Those subjects were selected randomly and they were excluded later from the study sample.

- Internal consistency of tool (II) was assessed using Cronbach's Alpha coefficient which yielded values of $r = 0.801$.

5. **Actual study**: it was divided into the following phases:

i. **Assessment Phase**: -

- The researcher selected 50 nurses who meet inclusion criteria.

- The selected nurses undergo a pre-test using tool I (Structured Nurses’ Knowledge Questionnaire) and then they were asked to fill it as pre intervention assessment. This was done as a self report in an individual basis, and in the presence of the researcher. This was completed in around 25-30 minutes, and tool II (Observational Checklist for Nurses' Practice Related to Patient Violence) which applied by the researcher through indirect observation to each nurse during their contact with violent patients. The time of observation was at least 25 minutes in the morning shift because the number of nurses are more available in the morning shift than other shifts. This phase aimed to determine the study subject's needs as a base line of training program.

ii. **Planning Phase**: -

- The psycho-educational program was developed by the researcher based on data from the assessment phase and reviewing of the recent related literatures.$^{(2, 3, 32-35)}$ The prepared program was translated into a simplified Arabic language by the researcher and revised by the supervisors to ascertain its content and appropriateness and applicability. Accordingly, the required modifications and corrections were carried out.
The educational program aimed to improve nurses’ knowledge and practice about violence of psychiatric patients. The program was achieved through theoretical and practical parts in which each one of them has set of specific objectives. The theoretical part of educational program aimed to provide studied nurses with theoretical knowledge about psychiatric patients’ violence. The practical part of the program aimed to provide them with skills required for dealing with violence of psychiatric patients.

iii. Implementation Phase:

- The training program was carried out in the training room at Tanta Mental Health Hospital on small group basis. This room was prepared specifically by the hospital for continuing teaching and training nurses and consisted of 12 chair arranged in a circle shape, portable laptop and data show.

- The study subject (50 nurses) was divided into several subgroups (10 nurses for each). each subgroup received nine session (one session / day / three days / per week /for 3 weeks). All sessions was given at the morning shift. The time of each session take about two hours.

- The educational program was implemented on 9 sessions represented as follow:

1. **Session 1:** Include introductory session, establishing relationship, obtain verbal consent, explain aim of the program and its’ schedule.

2. **Session 2:** Involve teaching about definition of terms related to violence, high risk factors of violence.

3. **Session 3:** Include teaching about the most common disease associated with violence, predictable signs of violence, patients’ needs (physical, psychological).

4. **Session 4:** Include discussing different ways of violence de escalation and prevention.

5. **Session 5:** Include discussing psychiatric nurse's role toward patients' violence including process of assessment and intervention.

6. **Session 6:** Include teaching treatment modalities that may be used for violent patients (psychopharmacological treatment).

7. **Session 7:** Include teaching, training about behavior therapy regarding violence.
8. **Session 8:** Include discussing and training about the therapeutic communication skills, and the therapeutic environment for managing violence.

9. **Session 9:** Include training about physical treatment e.g. seclusion & restraint, termination of the program, and immediate posttest.

**Regarding giving program content:**

**Generally**

- In both theoretical and practical sessions, the researcher was the initiator, provider of knowledge between studied nurses and researcher, and encouraged exploration of their responses, issues or concepts. The researcher also acted as a group leader who operated as a facilitator, teacher, and trainer. Nurses’ individual differences and level of understanding, their clinical experiences were all taken into consideration during teaching-training sessions. All over the sessions, nurses were always motivated to share in these sessions either externally (by rewarding them with giving them paper notes and pens, and offering tea breaks), and internally by positive comments and satisfying their needs for knowing by answering their questions, and expressing their emotions.

- At the end of each session, nurses were asked questions on what was presented at the session to assess their understanding. This was followed by summarization of the main points discussed in each session.

- At the end of the program for each subgroup, printed booklet of the educational program was given to all study subjects.

**Specifically**

- **The theoretical sessions** was given using lecture interwoven with discussion and sometimes demonstration method. Group discussion was used to enhance interest and promote active involvement of nurses. In addition to the examples, and illustrations which provided by the researcher for assuring understanding and the subjects also provided additional examples from their own personal and professional experiences. Lecture was given in clear, simple manner using attractive power point presentations which prepared by the researcher in a simplified and meaningful Arabic language for the study subjects and appropriate for allocated time.

- **In the practical sessions,** the researcher used mainly role play, demonstration and re demonstrations.
as method of teaching also, used
lecture, group discussion, visual aids
and video. Role play was carried out
between studied nurses themselves
and studied nurses with researcher.
Handout papers about simulated
situations and scenario were
distributed to all studied nurses at the
beginning of each session. In each
practical session, simulated nurse,
patient situations presented by the
researcher through data show and then
discussed with the studied subjects.

- **Firstly**, the researcher allowed nurses
to think critically and give wide range
of their own responses to the situations
and analyze each one, after that the
most therapeutic responses were
presented at the end of each situation’s
discussion in addition to giving
rationale and analysis to each choice.

- In most of the sessions, nurses brought
clinical situations which also
discussed with them. Also, role
playing for simulated scenario was
used as a teaching method in showing
therapeutic response to the clinical
situations and such method help the
nurses to know how they convey the
appropriate response. Also, after each
session, nurses were given a
homework in which each nurse writes
other situations with its therapeutic
response and this were discussed in
the next session.

- **For example** in implementation of
communication skills and teaching and
learning skills like positive and
negative reinforcement, behavior
contract and application of seclusion
and restraint after the researcher
provide all knowledge about this skills
by using attractive power points and
after listening video or scenario to
qualified nurses during dealing
effectively with violent patients and
use effective skills, the researcher
played role of nurse and studied nurses
played role of patients to make role
play of effective and therapeutic
response between nurse and patients
while giving care to violent patients.

iv. **Evaluation Phase:**
The evaluation of the implemented
program was done by reapplying of tool I,
tool II to psychiatric nurses and perform as
same as pre-test. This was done as
follows:

- Immediately after implementation of
the program.

- Three months later after program
implementation.

- The study was conducted in July 2017
and finished in January 2018.
Statistical analysis:
- The collected data was organized, tabulated, coded, and statistically analyzed using SPSS software statistical computer package version 16.0
- Statistical presentation and analysis of the present study was conducted using frequency, percentage, arithmetic mean, standard deviation, the linear correlation coefficient, chi-square, analysis of variance [ANOVA] tests, and Paired t-test.

Results:

Table 1: Presents the distribution of studied nurses according to their socio-demographic and work characteristic. The results revealed that, (54%) of studied nurses were < 30 years with the mean age (30.720 ± 6.2826) years, the majority of them were female (66%). Regarding their marital status, (70%) of nurses were married and (52%) of nurses come from urban areas. In relation to their educational level, (44%) of studied nurses had bachelor of nursing. Regarding experience year in nursing as a general, (40%) of them had experience >10 years, and (38%) of studied nurses had experience less than 5 years in psychiatric nursing with mean, (8.102 ± 4.66032) years.

Figure 1: shows studied nurses' total score of knowledge about violence before and after educational program. The results showed that, 8% of studied nurses had a good level of knowledge regarding patients' violence before the educational program. While it increased to reach 82% to fall in the same category immediately after the educational program implementation compared with 78% of nurses fall in the same category three months after the educational program implementation.

Table 2: Represents distribution of the studied nurses in relation to their mean score of knowledge about violence before, immediate, after educational program. it can notice that studied nurses had mean score of knowledge about violence before program (40.4200±8.15185) while this level became (61.9200 ±9.48864) immediately after program then descends after three month to become (61.1400±11.04353). The results revealed that, there were statistically significant differences between nurse's knowledge about violence before and immediately after the educational program while P-value = 0.000. but, there were no statistically significant differences between mean score immediately after and three months after the educational program implementation where (t= .369, P-value = 0.714).

Table 3: Presents the distribution of the studied nurses in relation to their mean
score of practice related to patients' violence before, immediate and three months after educational program. The results revealed that, in relation to "accepting the patient as human being " (section I) there were statistically significant differences between mean score before the program and immediately after the program as (t= 2.432 at P value=0.019) and also, there were statistically significant differences between mean score before and three months after the program implementation at (t= 4.563, P value= 0.000). While there were no statistically significant differences between mean score immediately after the program and three months after the program implementation where(t= 1.387, P value= 0.172).

Regarding, nurses' skills about "Use therapeutic communication skills" (section II), the results showed that, there were statistically significant differences between mean score before the program, immediately after and three months after the program implementation at P value <0.05.

Concerning, "reduce environmental stimuli" (section III) the results illustrates that, studied nurses mean score before program was(2.5200 ± 0.67733), whereas this level became(3.8000 ± 0.49487) immediately after program then descend after three month to become (3.2200 ± 0.84007) and this differences were statistically significant as P value= 0.000

In relation to, maintain safety environment (section IV), the results revealed that, there were statistically significant differences between mean score before the program, immediately post and three months after the program implementation at P value = 0.000.

Regarding, helping patient to learn self-control behavior (section V), the results revealed that, nurse's ability to learn patient self-control behavior was improved after program as there were statistically significant differences between mean score before the program, immediately post and three months after the program while P value <0.05.

Finally, regarding the total mean score of studied nurses' practice related to patient violence, the results revealed that, there were statistically significant differences between mean score before the program and immediately after at (t= 13.931, P value=0.000) as well as between mean score before and three months after the educational program implementation at (t= 7.502, P value= 0.000), also, there were statistically significant differences between mean score immediately after the program and three months after the program at (t= 2.995, P value= 0.004).
Table 4: illustrates the correlation between psychiatric nurses' level of knowledge and level of practice related to psychiatric patients' violence. The results revealed a statistically significant positive correlation between nurses' level of knowledge and level of practice related to psychiatric patients' violence immediately after and 3 months after implementation of the educational program where \( r = 0.861, P\text{-value}= 0.019 \) \( r = 0.418, P\text{-value}= 0.003 \) respectively. But, there were no statistically correlation between nurses' level of knowledge and level of practice related to psychiatric patients' violence before implementing the educational program as \( r = 0.180, p\text{-value}= 0.211 \).
Table (1): The Distribution of the Studied Nurses According to Their Socio-Demographic and Work Characteristics

<table>
<thead>
<tr>
<th>Socio-demographic Characteristics</th>
<th>Studied nurses (n=50)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
</tr>
<tr>
<td><strong>Age in years:</strong></td>
<td></td>
</tr>
<tr>
<td>&lt; 30</td>
<td>27</td>
</tr>
<tr>
<td>30 – 40</td>
<td>18</td>
</tr>
<tr>
<td>&gt; 40</td>
<td>5</td>
</tr>
<tr>
<td><strong>Mean ± SD</strong></td>
<td>30.720 ± 6.2826</td>
</tr>
<tr>
<td><strong>Sex:</strong></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>17</td>
</tr>
<tr>
<td>Females</td>
<td>33</td>
</tr>
<tr>
<td><strong>Marital status:</strong></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>11</td>
</tr>
<tr>
<td>Married</td>
<td>35</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
</tr>
<tr>
<td><strong>Residence:</strong></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>26</td>
</tr>
<tr>
<td>Rural</td>
<td>24</td>
</tr>
<tr>
<td><strong>Educational level:</strong></td>
<td></td>
</tr>
<tr>
<td>Nursing diploma</td>
<td>14</td>
</tr>
<tr>
<td>Bachelor of nursing</td>
<td>22</td>
</tr>
<tr>
<td>Technical nursing institute</td>
<td>14</td>
</tr>
<tr>
<td><strong>Experience at general nursing in years</strong></td>
<td></td>
</tr>
<tr>
<td>&lt; 5</td>
<td>13</td>
</tr>
<tr>
<td>5 – 10</td>
<td>17</td>
</tr>
<tr>
<td>&gt; 10</td>
<td>20</td>
</tr>
<tr>
<td><strong>Experience at psychiatric nursing in years</strong></td>
<td></td>
</tr>
<tr>
<td>&lt; 5</td>
<td>19</td>
</tr>
<tr>
<td>5 – 10</td>
<td>16</td>
</tr>
<tr>
<td>&gt; 10</td>
<td>15</td>
</tr>
<tr>
<td><strong>Mean ± SD</strong></td>
<td>8.102 ± 4.66032</td>
</tr>
</tbody>
</table>
Figure (1) Comparison of Studied Nurses’ Total Score of Knowledge About Violence Before, Immediate and Three Months After Implementation of The Educational Program.

Table (2) Distribution of the studied nurses in relation to their mean score of knowledge about violence before, immediate and three months after implementation of the educational program.

<table>
<thead>
<tr>
<th>Educational program</th>
<th>Studied nurses’ knowledge about violence (N = 50)</th>
<th>Paired T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean ± SD</td>
<td>Comparison</td>
</tr>
<tr>
<td>Before</td>
<td>40.4200 ± 8.15185</td>
<td>Before – Immediate</td>
</tr>
<tr>
<td>Immediate</td>
<td>61.9200 ± 9.48864</td>
<td>Before -After 3 months</td>
</tr>
<tr>
<td>After 3 months</td>
<td>61.1400 ± 11.04353</td>
<td>Immediate - After 3 months</td>
</tr>
</tbody>
</table>

*Statistically significant
Table (3) Distribution of the studied nurses in relation to their mean score of practice related to patients’ violence before, immediate and three months after educational program.

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean ± SD</th>
<th>Comparison</th>
<th>Paired T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Accept the patient as human being</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before</td>
<td>13.600 ± 2.16654</td>
<td>Before -Immediate</td>
<td>2.432 .019*</td>
</tr>
<tr>
<td>Immediate</td>
<td>14.8200 ± 2.40484</td>
<td>Before -After 3 months</td>
<td>4.563 .000*</td>
</tr>
<tr>
<td>After 3 months</td>
<td>15.3200 ± 1.25259</td>
<td>Immediate -After 3 months</td>
<td>1.387 .172</td>
</tr>
<tr>
<td>II. Use therapeutic communication skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before</td>
<td>12.3600 ± 2.13580</td>
<td>Before -Immediate</td>
<td>11.914 .000*</td>
</tr>
<tr>
<td>Immediate</td>
<td>16.5200 ± 1.46022</td>
<td>Before -After 3 months</td>
<td>6.206 .000*</td>
</tr>
<tr>
<td>After 3 months</td>
<td>15.3400 ± 2.46287</td>
<td>Immediate -After 3 months</td>
<td>2.852 .006*</td>
</tr>
<tr>
<td>III. Reduce environmental stimuli</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before</td>
<td>2.5200 ± .67733</td>
<td>Before -Immediate</td>
<td>11.186 .000*</td>
</tr>
<tr>
<td>Immediate</td>
<td>3.8000 ± .49487</td>
<td>Before -After 3 months</td>
<td>4.249 .000*</td>
</tr>
<tr>
<td>After 3 months</td>
<td>3.2200 ± .84007</td>
<td>Immediate -After 3 months</td>
<td>4.529 .000*</td>
</tr>
<tr>
<td>IV. Maintain safety environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before</td>
<td>7.6200 ± 1.56349</td>
<td>Before -Immediate</td>
<td>8.648 .000*</td>
</tr>
<tr>
<td>Immediate</td>
<td>9.7600 ± .82214</td>
<td>Before -After 3 months</td>
<td>3.846 .000*</td>
</tr>
<tr>
<td>After 3 months</td>
<td>8.8400 ± 1.47579</td>
<td>Immediate -After 3 months</td>
<td>3.968 .000*</td>
</tr>
<tr>
<td>V. Help patient to learn self-control behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before</td>
<td>7.2000 ± .92582</td>
<td>Before -Immediate</td>
<td>21.929 .000*</td>
</tr>
<tr>
<td>Immediate</td>
<td>10.5600 ± 1.03332</td>
<td>Before -After 3 months</td>
<td>7.136 .000*</td>
</tr>
<tr>
<td>After 3 months</td>
<td>9.4800 ± 1.86526</td>
<td>Immediate -After 3 months</td>
<td>3.356 .002*</td>
</tr>
<tr>
<td>Total performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before</td>
<td>43.3000 ± 5.00714</td>
<td>Before -Immediate</td>
<td>13.931 .000*</td>
</tr>
<tr>
<td>Immediate</td>
<td>55.4600 ± 3.55832</td>
<td>Before -After 3 months</td>
<td>7.502 .000*</td>
</tr>
<tr>
<td>After 3 months</td>
<td>52.2000 ± 6.02037</td>
<td>Immediate -After 3 months</td>
<td>2.995 .004*</td>
</tr>
</tbody>
</table>

*Statistically significant

Table (4): Correlation Between Nurses’ Knowledge and Level of Practice Related Patients’ Violence

<table>
<thead>
<tr>
<th>Nurses’ level of knowledge about psychiatric patients’ violence</th>
<th>Nurses’ level of practice related to psychiatric patients’ violence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
</tr>
<tr>
<td>Before intervention</td>
<td>0.180</td>
</tr>
<tr>
<td>Immediately after</td>
<td>0.861</td>
</tr>
<tr>
<td>After 3 months</td>
<td>0.418</td>
</tr>
</tbody>
</table>
Discussion

Nurses serve as the frontline care providers in the country's health system particularly the mental health system. These nurses, face the huge challenge of providing nursing care to violent psychiatric patients. Patients' violence is a global issue, and major problem in both developed and developing countries which represented in the use of physical force, verbal abuse, threat or intimidation, which can result in harm, hurt or injury to self or to another person. Fear from patients' violence affects the performance of Health Care Providers (HCPs) and decreases their responsiveness to healthcare needs of the patients. (36–40)

Thus, it is required for nurses to have the necessary knowledge and skills to manage mentally ill, violent patients without being hurt in the process. In order to do this, psychiatric nurses need to be educated and trained in understanding patient's violent behavior to increase the confidence of psychiatric nurses when confronted with violent patients and to be able to reduce the risk of injuries to both psychiatric nurses and patients.

The present study aimed to evaluate the effect of the psycho-educational program about violence on nurses' knowledge and practice.

Regarding knowledge of studied nurses about patients' violence, the present study represented improvement in the total knowledge level immediately after and after three months from implementation of the educational program compared with before the implementation of the educational program. Such result can be relatively understood in the light of the immediate effect of educational program sessions which were based on nurses' needs besides its clarity, simplicity. Additionally, at the end of each session nurses were asked questions on what was presented at the session to assess their understanding and this was followed by summarization of the main points discussed in each session. The positive impact of the training program may also be explained by the fact that this program meets the recommendations formulated in the literature regarding staff training to prevent violence (41–43). For instance, The program also includes recommendations made by Abu Al Rub et al. (2010) (44), according to whom a training program should include the recognition of verbal and nonverbal signs of aggression, risk assessment and management, de-escalation tactics, and post-incident support. Also, in review of the literature on this subject, Beech and Leather (2009) (45), reported that a good training program should contain theory (understanding aggression and violence in the workplace), prevention
(assessing danger and taking precautions), interaction (with aggressive people), and post-incident action (reporting, investigation, counseling, and other follow up).

In this line, the result of the present study come in agreement with the study done by Arguvanli S. et.al.(2015) (46), who revealed that, aggression management training program (AMTP) was found to increase knowledge level of nurses and led to positive changes at their aggression perceptions. Similarly, Kollipara S. et.al. (2015) (47), revealed that, the significant effect of training program was found on knowledge scores of the staff nurses regarding management of patient with violent behavior. In contrast to this finding, Bekelepi N. (2015) (48), founded that, the majority of participants had not received any kind of training in the management of violence and the training that is provided, is not effective to equip them with the knowledge and skills to manage in-patient violence.

In relation to, nurses' level of practice related to patients' violence, the result of the present study illustrate that, there were statistically significant differences between nurses' level of practice before and after implementation of the educational program. This may be due practical sessions which allow nurses to effectively practice violence prevention and management over a period of time by given a simulated clinical situations. In addition to the homework that was given to nurses, as post simulation activity enhanced nurses' practice toward patients' violence. As such homework increases their motivation to improve their skills which leads to personal and professional growth. At the same time during practical sessions, the researcher used the role playing as a teaching method in showing effective response to the clinical situations and such method help the nurses to know how they convey the appropriate response in effective manner. This result is in accordance with study done by Fathy Sh.(2012) (49), who founded that there were highly statistically significant differences between nurses' level of skills pre/ post counseling.

In the same direction, Baig, L. et.al. (2018) (50), proved that, the intervention group had higher perceived confidence levels and coping skills to deal with aggression when compared with the control group. In contrast to this finding, Tema et al. (2011) (51), reported that, nurses felt that they did not receive enough training in order to gain enough knowledge and be skilled in handling violent patients. However, Letlape H. (2012) (52) asserts that psychiatric nurses who attend in-service
training and are empowered with latest psychiatric knowledge and skills are more effective when dealing with violent psychiatric patients and are able to reduce the risk of injuries to both nurses and patients.

Finally, regarding correlation between psychiatric nurses' level of knowledge and level of skills to deal with psychiatric patients' violence. The results of the present study revealed that there is a statistically significant positive relationship between nurses' level of knowledge and level of skills to deal with psychiatric patients' violence. This result indicated that when nurse's knowledge about violence increased, in return, the psychiatric nurses’ level of skills to deal with the violent patient increase. This results may be interpreted by the fact that "in order to deal effectively with violent patient nurses must have sufficient knowledge data base that help them to understand everything about patients' violent behavior". Furthermore, the educational program cover all necessary knowledge about violence of psychiatric patients that needed to intervene effectively with violent patient and also the researcher motivate the studied nurses to apply learned knowledge in clinical field during dealing with violent patient. This result is contrary to Fathy Sh.(2012) (49), who showed that, there were no correlation between psychiatric nurses' level of knowledge and level of skills to deal with psychiatric patients' violence.

**Conclusion and Recommendations**

**Conclusion:**
Psychiatric inpatient aggression and violence is commonly reported emergency that requires immediate, prompt nursing interventions to reduce and prevent its negative consequences on both patients and staff in inpatient psychiatric settings. Based on the findings of the present study, it can be concluded that the implementation of the educational program sessions showed highly statistically significant improvements in nurses' level of knowledge about violence, and nurses' practices toward violent patient. Additionally, there is a statistically positive relationship between nurses’ level of knowledge about violence and their level of practice toward violent patient. Accordingly, when nurses' level of knowledge about violence increased, their ability to deal with violent patient improved.

**Recommendations:**

**Recommendations regarding education:**
- Adding a qualitative research approach that enrich the nurses' theoretical and practical background concerning psychiatric patient violence management.
Implementing further educational program for nurses concerning the pattern of communication and behavioral management for violent patients.

Generalize the application of the educational programs for all psychiatric nurses to provide a better understanding about violence of psychiatric patient and how to deal effectively with them.

Continuous In-service training programs need to be implemented for nurses to provide necessary knowledge and skills about violence of psychiatric patient in clinical practice area.

Establish workshops and holding seminars to help the nurses refresh their knowledge about violent patient and discuss their daily problems facing them in workplace.

Recommendations regarding hospital administration:

- Provide ways of accessing information to nursing staff as internet unit, library books and digital library to be able to know new trends about assessment and management of violence of psychiatric patient.
- Developing in-service an educational department to help in preparing nurses prior to work to upgrade their knowledge and skills regarding violence periodically.

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