

Effect of Psychological First Aid Training Program on Nurses Knowledge, Skills and Attitude at Psychiatric Out Patients Clinic

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Abstract: Providing psychological first aid (PFA) is generally considered to be an important element in psychiatric outpatient care of mental disorders is of utmost importance which affect knowledge, attitude and skill of psychiatric nurses and foster recovery of psychiatric patients. The study aimed to determine the effect of psychological first aid training program on nurses' knowledge, skills and attitude. Setting, this study conducted at psychiatric out patient clinic in mental health hospital Assiut City. **Methods:** A convenience sample included fifteen psychiatric nurses working at psychiatric out patient clinic, Quasi experimental research design was used, **Tools:** self-administered questionnaire scales for assessment of psychological first aid, psychiatric disorders, attitude toward psychiatric disorder and skills scales, this tool was used before program implementation, immediate post, and 3 months after the program. **Results:** there was significant improvement in knowledge, attitude and skills related to psychological first aid and psychiatric disorders of the entire nurses after implementation of the program, While, at the follow-up of the program all nurses have some deterioration in all the areas in all areas of knowledge, skills and attitude towards psychiatric disorders. There were statistically significant differences between nurses' their job satisfactions and experience years and their knowledge, skills and attitude throughout the program in all stages of test ($P < 0.05$). **Conclusion:** The study concluded that; the implemented program about psychological First Aid Training Program had a significant impact on Nurses' knowledge, skills and attitude toward psychological first aid and psychiatric disorder management. **Recommendations:** Developing educational material sensitive to community mental health nurses about psychological first aid and psychiatric disorders.

Keywords: psychological First Aid, psychiatric disorders.

1. INTRODUCTION

The psychiatric foster uses the nursing preserver that has already literate to assess and diagnose clients' illnesses, to recognize outcomes, to plan, implement and evaluate nursing care to contribute a systematic system for delivering management in outpatient clinic in hospitable. Also basic direct of psychiatric nursing artifice is characterized by intervention promotes and fosters health, assesses dysfunction, sustain clients to regain or mend their coping abilities and prevents further disability. While the advanced practice nurses provide psychological first aid as one of primary mental health care services (Bethany, 2003).

Today's psychiatric-mental health nurse needs to be a life-long learner who is constantly challenged by recent evidence based practices and who looks for ways to improve on the standard of psychiatric intervention (Hirai & Clum, 2000). Functions and roles of psychiatric mental health nurses include psychological first aid, advocacy, care of persons with

mental illness, promotion and maintenance of mental health, psychosocial management, alternative management, case management, milieu therapy, health teaching, and participation in the interdisciplinary mental health team (**Hawla & Balhara , 2012**).

The psychiatric outpatient nurse needs knowledge and skills to provide help to people with mental health problems. This help, knowing as psychological first aid referee to reduce the initial distress caused by traumatic events and to foster short- and long-term adaptive functioning and coping. Principles and techniques of Psychological first aid meet four basic standards. They are: Consistent with research evidence on risk and resilience following trauma, applicable and practical in field settings, appropriate for developmental levels across the lifespan and Culturally informed and delivered in a flexible manner Psychological First Aid does not assume that all survivors will develop severe mental health problems or long-term difficulties in recovery (**National Traumatic Stress Network, 2012**).

Instead, it is based on an understanding that early reactions (for example, physical, psychological, behavioral, spiritual). Some of these reactions will cause enough distress to interfere with adaptive coping, and recovery.

World Health Organization (WHO) (2016) define psychological first aid as “a humane, supportive response to a fellow human being who is suffering and who may need support” includes interventions such as listening, comforting, helping people to connect with others and providing information and practical support to address basic needs.

psychological first aid interventions are consistent with five key principles: safety, connectedness, self and collective efficacy, calm and hope, that together in essence ease the transition to normality this implies that the practice of PFA is not restricted to mental health professionals but could also be delivered by lay people (**Shultz & Forbes, 2013**).

The knowledge of attitude and awareness of psychiatric nurses towards, mental health and mental disorders is of utmost importance (**Tarun Yadav et al., 2012**). These attitudes have important implications for planning of mental health program. Many nurses have prejudiced attitudes towards mentally ill individuals. Social stigma and negative attitudes can affect the quality of life for people with mental illness (**Luty & Fekadu, et al., 2006**).

There may be various reasons for this negative attitude include lack of accurate information about mental illness, lack of contact with individuals with mental illness and lack of familiarity might be some of the most important reasons of these negative attitudes. Such negative attitudes may be detrimental not only to the patient care but also to the society's attitude to mental disorders if they are present in the health professionals. Studies looking into the impact of education or information on attitudes of individuals towards mental illness and mentally ill have shown that education may have positive impact on the prejudice (**Roberts et al., 2008**).

Role of education and training has been perfect to reduce stigma, improve nurse's knowledge, skills and positive attitude towards mentally ill (**Pinfold and Toulmin, 2006**). There's a need for psychiatric mental health nursing has to developed knowledge, skills and positive attitude towards Psychiatric patients in mental hospitals should receive advanced nursing care. The role and function of the psychiatric-mental health nurse expanded (**Altindag and Yanik, 2008**).

Aim of the study:

The present study was aimed to determine the effect of psychological first aid training program on nurses' knowledge, skills and attitude at psychiatric outpatients' clinic in mental health hospital.

2. SUBJECTS AND METHODS

Research design

A Quasi experimental research design was used in study.

Subjects of the study

A convenience sample of all registered fifteen nurses working at outpatient clinics in Psychiatric Mental Health Hospital at Assuit City, who agreed to participate in the study at time of data collection was selected. Since all available eligible nurses in the setting were participated in the study.

Setting of the study

The study was carried out at psychiatric outpatient clinic in mental health hospital at Assuit city, it is a governmental hospital.

Ethical consideration:

An oral informed consent was obtained from each nurse participated in the study. The aim was explained in a simple manner to each participant. They were informed about there is no harmful maneuver and no hazards were anticipated and confidentiality was maintained during all steps of the study. They were informed about their rights to refuse or to withdraw from the study at any time.

Tools of the study

The study used a specially structured assessment questionnaire that was designed by the researchers after reviewing the different related researches and literatures to collect the required data; the assessment questionnaire was categorized as follows:

I: Socio demographic data:

It includes the nurse's age, sex, residence, level of education, marital status, years of experience... etc.

II: knowledge assessment part:

This questionnaire was developed by the researchers based on the review of literature. It consists of 102 items categorized under 3 major subscales:

- The first one, entails 31 items related to nurse's basic knowledge about the Psychological first aid and psychiatric disorders covering, schizophrenia, depression and manic disorders.
- The second subscale includes 46 items referring to knowledge related to nursing care for schizophrenic patient, nursing care for depressed patient, nursing role with suicide, nursing intervention with manic patient, general principles in psychiatric nursing and communication.
- The last subscale comprises 25 items which assess nurses' knowledge about, electroconvulsive therapy, care of violent patients and alternative therapy.

The knowledge questionnaire consists of two types of questions; the first type was multiple choice questions, while the second form includes statements to which the subject responds with either true or false. An accurate response is given a score of 1. The scoring system for this questionnaire was developed to be based on number of scores and thus the highest attainable score was 102. The higher score the higher the level of knowledge.

III: Skills scale:

The study was focus on improvement of nurse's practice and skills for the purpose of simplicity and clarity of the questionnaire, an assessment tool (skills scale) was designed and utilized to collect the necessary data. It is divided into 3 subscales of skills that were described as follows:

- The first subscale consists of 16 items that was developed by the researchers to assess the nurses' role with patients receiving electroconvulsive therapy such as their role before, during and after receiving electroconvulsive therapy.
- The second subscale was designed by the researcher based on the review of current related literature to assess the nursing intervention with violent patients. It consists of 17 items, related to early warning signs, management types and nursing intervention.
- The last subscale composed of one item in the form of open-ended question that was designed by the researchers to assess the nursing role in alternatives therapy.

In order to facilitate analysis and interpretation of the results of this part of the study, the skill questionnaire consists of an accurate response is given a score of 1 and thus the highest attainable score was 34. The higher the score mean the higher the level of practice.

IV: Attitude Scale for Mental Illness:

The original scale was developed by **Yuker et al. (1966)** to measure attitudes toward people with disabilities. It was revised by **Murray & Chambers (1991)** to test attitudes toward people with mental illness and tested for validity and reliability by **McLaughlin (1997)**. It consists of 30 items divided into two major sections.

Part I: assesses nurses attitudes toward people with mental illness and

Part II: assesses nurses' attitudes toward psychiatric treatment.

Responses were measured on a three points Likert scale, ranging from 1 to 3 as follows: disagree has score of three points, sometimes agree has score of two points and totally agree has score of one point for each item.

Pilot study

A pilot study was carried out on 3 nurses working at out patient clinic psychiatric mental health hospital to evaluate the questionnaire clarity, feasibility and applicability. Modifications were done to assess any further problems or difficulties such as phrasing sequence and clarity of questions.

Education and training Program

The improvement of nurses' skills, knowledge and attitudes to word psychological first aid and psychiatric disorders is the goal that would be accomplished by this training program. The program started in the period from the first April 2017 to the end of April 2018 and follow up was applied 3 months after termination of the program. The present program has been implemented through the following phases:

1- Assessment phase:

After the purpose and the nature of the study were explained to the nurses an oral consent to participate in this study was obtained. Place, time and schedule of the program were explained to the participants to attain their active participation and cooperation during implementation of the program, as well as voluntary participation and confidentiality were assured.

2- Planning (preparatory phase):

During this phase, the content of the program was revised by a group of experts to test content validity and relevancy. This phase has been completed in about one year from April 2017 to April 2018. Based on finding of the pilot study, some modifications were done to ensure clarity and feasibility of the content.

Also the planning phase included the program strategy, e.g., time and number of sessions, teaching methods, materials used, learning activities and teaching place. In addition, all program facilities were checked for appropriateness. The most common of which were categorized into:

Methods of teaching used in the program:

A wide variety of teaching methods were used in this program, e.g., lectures, group discussion, brain storming, clinical training and role play.

Learning activities:

The learning activities of the program contained case study presentation, patient assessment, reading assignment, writing observations sheet, activity and recreational therapy and patient psycho education.

Media used in the program:

The materials were used in this program to facilitate the learning process included power point presentation, flipcharts, and watching video. Theoretical content of lectures (handouts) was given for all nurses who participated in the program at the beginning of the training.

3- Implementation Phase:

The training program was conducted through 20 sessions, two sessions per week, one session for lecture and the second one was applied on the form of skills and practices psychological first aid with psychiatric patients at the hospital. The same program was implemented and repeated for each subgroup of nurses. The program implementation phase divided into the following major parts:

A- Theoretical part (knowledge):

This part included the theoretical content of the program that meets the nurse's needs of knowledge in psychological first aid and psychiatric disorders nursing intervention and on which the other parts (skills and attitude) were developed, on

each session nurses were informed about the time and the title of the next one. Each theoretical session took about 2 hours and usually started by a summary of what had been discussed in the previous session and the objectives of the new session. Each lecture ended by a summary of its contents.

B- Practical part (skills):

During this part the psychiatric out patient clinic nurses (studied subjects) applied what they learned. The duration of the practical session about 4 hours; furthermore, the skills were continued during their working time which called on job training or work hours. The nurses were divided into three subgroups to provide care and applied what they learned with all patients (males and females) in out patient clinic.

At the beginning, the patients, researchers and nurses were introduced to each other and discuss the planned activities, its goal, time, place and frequency of newly admitted patients. On each practical session the nurses ask the patients when confronting psychological distress what are measures used as psychological first aid safety, connectedness, self and collective efficacy, calm and hope, that together in essence ease the transition to normality.

Nurses observe psychiatric patient signs of being disoriented or overwhelmed as looking glassy eyed and vacant- unable to find direction, unresponsiveness to verbal questions or commands, disorientation (for example, engaging in aimless disorganized behavior), exhibiting strong emotional responses, uncontrollable crying hyperventilating, rocking or regressive behavior, experiencing uncontrollable physical reactions (shaking, trembling), exhibiting frantic searching behavior, feeling incapacitated by worry, engaging in risky activities.

Psychological First Aid interventions:

The program was designed and will be implemented by the researcher includes three parts as nurses steps to stabilize the majority of distressed psychiatric patients as psychological first aid, Social support, and help the patient to be cooperative with all forms of treatment.

Part one: Nurses steps to stabilize the majority of distressed psychiatric patients as psychological first aid:

- Respect the person's privacy, and give patients a few minutes before intervene. To be available if they need.
- Remain calm, quiet, and present, rather than trying to talk directly to the person, as this may contribute to cognitive or emotional overload.
- Identify immediate needs and concerns, gather additional information.
- Offer practical help to patients in addressing immediate needs and concerns.
- Offer support and help and focus on specific manageable feelings, thoughts, and goals.
- Providing information that orients patients to the surroundings, such as how the setting is organized, what will be happening, and what steps may consider.

Part two: Social support is related to emotional well-being and recovery following distress. People who are well connected to others are more likely to engage in supportive activities (both receiving and giving support) that assist with disaster recovery. Social support includes **Emotional Support** as listening, understanding, love, and acceptance, **Social Connection** as feeling fit in and have things in common with other people having people to do things with, **feeling needed** feel important, valued, useful and productive to others, **reassurance of self-worth** as help patients to have confidence in him self and abilities, **reliable support, and advice and information** as learn patient how to do something or give information or advice to understand the way of reacting and learn how to cope in positive ways with psychological distress.

Fostering connections as soon as possible and assisting patients in developing and maintaining social connections to foster recovery. Benefits of social connectedness include increased opportunities for knowledge essential to disaster recovery and opportunities for a range of social support activities, including practical problem-solving, emotional understanding and acceptance, sharing of experiences and concerns, normalization of reactions, and mutual instruction about coping.

Part three: the nurses help the patient to be cooperative with all forms of treatment: taking medications as prescribed, active participation in out patients activities included psycho education, watching role play. Video, pursuer and poster in waiting room in out patient clinic. Alternative therapy include assertive training, coping strategies, also the nurses provide care for patients receiving electroconvulsive therapy.

C- Attitude part:

An important part of this study was to find ways that help the participants to correct their ignorance and faulty thinking about the mentally ill, so they would have less negative attitudes towards those who are mentally ill, developed psychological first aid, and implement nursing intervention for psychiatric patients. During the program the nurses were given what they need of knowledge and skills about psychological first aid and psychiatric nursing intervention, which may lead to less negative attitudes towards psychiatric patients through discussing and supporting people with mental illness such as, psychiatric patients can recover and lead normal lives. They should be respected and perceived as a human from others.

4- Evaluation phase:

Assessment of nurses was done three times using the same study tools to evaluate whether the change persisted or not. The first assessment was done before the program (pre-test), the second immediately after the program implementation (post-test) and the third (follow up) was carried out three months later.

Statistical method:

The data were tabulated and statistical analysis was performed with statistical package for social science (SPSS) version 18 (18). Comparison between studied groups was performed with frequency, percentage, mean, standard deviation (SD), median and range. Statistical significance was ascertained using the T-test for differences in continuous variables. A p-values of < 0.05 was considered statistically significant and highly significant when p-values were less than or equal 0.01.

3. RESULTS

Table (1) shows that; the age of studied nurse ranged from 19 to 40 years old with mean age of 24.5 ± 5.02 years, more than half (53.3%) were females, the years of experience in psychiatric hospital varied between one to 10 years, two third (60%) had less than 5 years and the majority (73.3%) were not satisfied by their work as psychiatric nurses.

Tables (2) shows that, there were significant changes studied nurses mean scores for psychological first aid, and all nursing care for psychiatric patients, general principles and communication and total knowledge in pre, post and follow-up tests of the intervention program ($p < 0.001$). The lowest mean scores was related to knowledge about suicidal patient compared to the same studied nurses in post and follow-up tests of the intervention program.

Table(3) shows that; all nurses' skills in areas related to intervention with Electroconvulsive therapy (ECT) and violent patients and nursing role in recreational therapy have improved after the program intervention. While, nurses' skills at the follow-up of the program have demonstrated some deterioration in all the areas. Their were highly statistically significant differences between pre, post and follow-up tests of the intervention program ($p < 0.001$).

Table(4) demonstrates that; the levels of improvement in nurses' attitude towards psychiatric patients and their treatment recorded higher significant difference after program implementation than at follow-up phase related to all areas of attitude scale. Their were highly statistically significant differences between pre, post and follow-up tests of the intervention program ($p < 0.001$).

Table (5) shows that, there were statistically significant differences between nurses' experience in years and their knowledge, skills and attitude throughout the program in all stages of test ($P < 0.05$) except the relation between nurses whose years of experience from 1 to less than 5 years and nurses attitude in post-test.

Table (6) illustrate that, the nurses who were not satisfied by their job recorded higher significant levels of improvement both at post and follow-up phases than those who were satisfied by their job as psychiatric nurses regarding the total scores and also for all items constituting nurses' knowledge, skills and attitude.

4. DISCUSSION

There is high prevalence of mental disorders, the community mental health nurse is the first contact with people with mental health problems and can play a valuable role in providing psychological first aid **Al-Awadhi et al., (2017); WHO (2007)**. Therefore, a community mental health nurse needs knowledge and skills to help people with mental health problems.

The results of present study indicated that the age of studied nurse range from 19 to 40 years old with mean age of 24.5 + 5.02 years, nearly to half of studied nurses had experience 1 to less than 5 years, while those who had high years of experience more than 5 years reported the one third of nurses. It was of interest to note that the majority of nurses two third were not satisfied by their work as psychiatric nurses, while third of nurses satisfied with their work as psychiatric nurses.

This study shows that, there were significant changes studied nurses mean scores for psychological first aid, and all nursing care for psychiatric patients, general principles and communication and total knowledge in pre, post and follow-up tests of the intervention program ($p < 0.001$). The lowest mean scores were related to knowledge about suicidal patient compared to the same studied nurses in post and follow-up tests of the intervention program.

It is noticed that there was some deterioration in mean scores of knowledge all the areas after 3 months follow-up than immediate post-test. The differences between pre, immediate post and follow up tests were highly statistically significant, $P < 0.005$.

This result is congruent with **Lalengkim et al. (2016)** they found that the main score of knowledge about psychiatric first aid training module (PFATM) increased immediately after the program due to the knowledge gained through the teaching program. Nurses in the experimental group show a statistically significant difference in knowledge from their pre test scores to post test scores taken immediately after due to the knowledge gained through the teaching program ($p = 0.001$).

Regarding nurses knowledge about nursing care for psychiatric patients throughout training program; before implementation of the intervention program, the results of present study pointed to their lack of knowledge in nursing care for psychiatric patients, general principles and communication. While, immediately post the intervention program; it was revealed that the knowledge was improved and the total mean scores of all items were much higher in comparison to their pre-test evaluation.

This result is in accordance with **Hadlaczky et al., (2014); Wong et al., (2017)** who found that the participant' knowledge about care for psychiatric patients increased immediately after the intervention program. The improvement in knowledge may be attributed to nurse's interest and motivation to gain knowledge through the teaching program. Also these findings are consistent with the growing number of studies demonstrating the effectiveness of mental health first aid courses (**Morgan et al., 2018**).

At the follow-up of the intervention program, nurses' knowledge about psychological first aid and nursing care for psychiatric patients has shown some decline in all items relative to the immediate post-test. The result is in accordance with **Jorm et al., (2010) and Wong et al., (2017)** they found that at the follow up test (after 6) month post intervention period the median scores for knowledge were slightly reduced among the intervention sample. This finding may be attributed to the long time between immediate post and follow-up tests which highlighted the need to repeat the program.

Regarding effect of psychological first aid training program on nurses skills this study revealed that, all nurses' demonstrated significant improvement in their skills in areas related to intervention with electroconvulsive therapy and violent patients and nursing role in recreational therapy have improved after the program intervention and the total mean scores of all items were much higher in comparison to their pre-test evaluation. This result is consistent with **Bond et al., (2015); Mackelprang et al., (2015)** they found that people exposed to a training program had higher skills scores than those who did not exposed to a training program.

According to follow-up of the of the intervention program, the studied nurses demonstrated some deterioration of their skills in all the areas relative to immediate post-test program. This finding may be attributed to the long time between immediate post and follow-up test (after 6 months) of the intervention program. This explanation was supported by **Anderson and Gaetz, (2008) & Moktar et al., (2018)** they stated that extensive literature indicates that overall skills retention decay over time without regular practice or refreshing courses.

The present study revealed that statistically significant improvements in nurses' attitude towards psychiatric patients and their treatment after program implementation both at the post-program and followed-up phases, the total mean scores of all items were much higher in comparison to their pre-test evaluation. This finding may be due to theoretical and clinical training creates positive attitudes of nurses towards mental illness, improved attitudes towards mental illness as a whole.

This result is congruent with **Al-Awadhi et al., (2017) & Zhenyu Ma et al., (2018)** who reported that the nurses' have negative attitude toward mentally ill patients in their his research while **Kitchener and Jorm, (2002)** and **Hadlaczky et al., 2014& Lalengkimi, (2016)** they reported that the Mental Health First Aid (MHFA) training increases the positive attitudes of participants towards mental illness and treatment methods., Also this finding achieve the purposes of the MHFA course - the goal of MHFA training is to change participant's attitudes

All the differences between pre, post and follow-up tests of the intervention program were highly statistically significant ($p < 0.001$). This results , is congruent with several studies as **Kitchener and Jorm (2006); Jorm et al., (2010); Mackelprang et al., (2015); Maddineshat et al., (2018); Morgan et al., (2018)**.

This study show; that two third (60%) of studied nurses had less than 5 years of experience in psychiatric hospital, and there were statistically significant differences between nurses' experience in years and their knowledge, skills and attitude throughout the program in all stages of test ($P < 0.05$).

This finding are congruent with **Lalengkimi (2016)** who studied the effectiveness of Psychological first aid training module in modifying knowledge and attitude of nurses working in Trauma unit this study reviled that, nearly three quarter of studied nurses were not satisfied by their work as psychiatric nurses. This result could be attributed to the lack of knowledge and skills for these nurses regarding mental disorders or dealing with. This explanation was supported by **Aino et al., (2016)** they stated that lack of job satisfaction is associated with lack of information. When information is available, job satisfaction is increased.

This study stated that, nurses who were not satisfied by their job recorded higher significant levels of improvement both at post and follow-up phases than those who were satisfied by their job as psychiatric nurses regarding the total scores and also for all items constituting nurses' knowledge, skills and attitude. The improvement in nurses' knowledge, attitude and skills may be due to nurses' interest and motivation to be an active participant in the program and to gain the knowledge gained through the teaching program.

5. CONCLUSION

The implemented program about psychological first aid for psychiatric patients, general principles and communication and total knowledge had a significant impact on nurses' knowledge attitude and skills.

6. RECOMMENDATIONS

- 1- Developing educational material sensitive to community mental health nurses about psychiatric disorders and it psychiatric first aid
- 2- Intervention program should be implemented in all health care setting to improve the knowledge , attitudes and skills of health care personnel towards psychiatric disorders and its psychological first aid
- 3- All citizens should be taught psychological first aid skills that can be applied in any psychiatric emergency.
- 4- Psychiatric first aid training program should be directed to different levels of population: at school, at work or civil service. To attract participants, it has to be without or with little fees.

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Appendix -A

RESULTS

List of tables:

Table (1): Socio demographic characteristics of the studied nurses at psychiatric mental health hospital

Characteristics	Studied Nurses (n =15)	
	No.	%
Age (years):		
<20	2	13.3
20 –	10	66.7
30 – 40	3	20.0
Mean \pm SD	24.5 \pm 5.02	
Sex:		
Males	7	46.7
Females	8	53.3
Years of experience in psychiatric hospital		
< 5 year	9	60.0
\leq 10	6	40.0
Job satisfaction:		
Yes	4	26.7
No	11	73.3

Table (2): Distribution of the mean scores of nurses' knowledge about Psychological first aid and psychiatric disorders nursing care throughout training program.

Knowledge about Psychological first aid and psychiatric disorders	Pre-test (n = 15)		Post-test (n = 15)		Follow up (n = 14)		Pre-post		Pre-follow up	
	Mean	SD	Mean	SD	Mean	SD	T-test	P-value	T-test	P-value
Psychological first aid	4.6	1.1	8.8	0.9	7.2	1.6	11.112	0.000	5.071	0.000
Care for schizophrenic patient	3.6	0.8	6.8	1.01	5.1	1.3	9.466	0.000	3.607	0.001
Care for depressed patient	3.1	0.9	5.6	0.7	4.0	0.9	8.102	0.000	2.614	0.007
Care for suicidal patient	2.3	0.5	4.5	0.6	3.7	0.6	11.158	0.000	7.252	0.000
Care for manic patient	2.7	0.5	4.6	0.6	3.9	0.6	9.260	0.000	5.961	0.000
General principles	3.3	1.2	5.9	0.8	4.7	0.6	7.320	0.000	4.150	0.001
Communication	2.6	0.6	4.5	0.5	3.3	0.7	8.854	0.000	2.717	0.005
Total knowledge	37.5	4.5	71.1	3.2	55.5	5.2	23.441	0.000	9.968	0.000

Statistically significant at P < 0.05

Table (3): Distribution of skills scores among nurses at Psychiatric mental health hospital throughout training program.

Skills	Pre-test (n = 15)		Post-test (n = 15)		Follow up (n = 14)		Pre-post		Pre-follow up	
	Mean	SD	Mean	SD	Mean	SD	T-test	P-value	T-test	P-value
Intervention with ECT	5.8	1.7	11.0	2.3	8.1	2.3	9.431	0.000	4.322	0.000
Intervention with violent patient	6.2	1.6	11.7	1.5	8.8	1.5	9.771	0.000	4.564	0.000
Nursing role in alternative therapy	1.1	0.9	2.9	0.7	1.7	0.9	6.400	0.000	1.940	0.044
Total skills	13.1	2.7	25.7	2.9	18.6	2.3	12.139	0.000	5.944	0.000

Statistically significant at P < 0.05

Table (4): Distribution of the mean scores of attitude scale towards psychiatric patients among the studied nurses throughout psychological first aid training program.

Attitude scale	Pre-test (n = 15)		Post-test (n = 15)		Follow up (n = 14)		Pre-post		Pre-follow up	
	Mean	SD	Mean	SD	Mean	SD	T-test	P-value	T-test	P-value
Attitude towards patients	28.5	2.03	35.2	2.9	34.0	2.6	7.159	0.000	6.289	0.000
Attitude towards treatment	22.0	2.2	27.3	2.9	25.9	3.7	5.617	0.000	3.441	0.002
Total score of attitude	50.5	2.8	62.5	5.4	59.8	5.8	7.572	0.000	5.572	0.000

Statistically significant at P < 0.05

Table (5): Differences among nurses according to experience years in relation to their knowledge, skills and attitude (pre-program and post-program)

Items	< 5 years				≤ 10 years			
	Pre (n=7)	Post (n=7)	Pre-post		Pre (n=6)	Post (n=6)	Pre-post	
	M + SD	M + SD	T. test	P. value	M + SD	M + SD	T. test	P. value
Total score of knowledge	39.3±4.7	71.1±2.1	16.41	0.000	34.3±3.2	70.3±4.2	16.74	0.000
Total scores of skills	14.7±1.3	27.0±1.7	15.20	0.000	11.7±3.4	24.7±3.9	6.09	0.000
Total score of attitude	50.0±3.7	63.6±6.2	4.96	0.000	50.5±1.8	61.7±5.8	4.54	0.001

Statistically significant at P < 0.05

(-) Test result not valid.

Table (6): Differences among nurses according to job satisfaction in relation to their knowledge, skills and attitude (pre-program and post-program)

Items	Satisfied				Not satisfied			
	Pre (n = 4)	Post (n = 4)	Pre-Post		Pre (n = 11)	Post (n = 11)	Pre-Post	
	M + SD	M + SD	T. test	P. value	M + SD	M + SD	T. test	P. value
Total score of knowledge	39.0±5.5	70.8±1.7	11.06	0.000	37.0±4.3	71.3±3.6	20.08	0.000
Total score of skills	13.5±3.1	25.5±3.0	5.55	0.001	12.9±2.7	25.7±3.1	10.33	0.000
Total score of attitude	50.0±3.7	63.5±4.8	4.29	0.005	50.5±2.7	62.2±5.8	6.01	0.000

Statistically significant at P < 0.05