

# WORK-BASED TRAINING AS A MEANS FOR DEVELOPING PSYCHIATRIC NURSE CLINICAL COMPETENCE

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### Abstract

**Background:** Nurses work in ever-changing healthcare environments. Hence, learning plays a key role in their professional development and continuous improvement of patient care. **Aim:** This study aimed to assess the effect of Work-Based Training (WBT) on mental health nurses' clinical competence. **Research design:** A one-group quasi-experimental design with pre-post assessment was used in carrying out this study. **Setting:** The study was conducted at Abbass-Helmy Center for mental health and addiction treatment affiliated to the General Secretariat of Mental Health and Addiction Treatment. **Subjects:** All available staff nurses (n=50) were included in this study. **Tools:** Data were collected by using two tools, namely a self-administered questionnaire for nurses' knowledge, and a clinical competency observation checklist. **Results:** of The study revealed that nurses in the study age ranged between 25 and 59 years, median 29.0 years, with the majority being females (92.0%), and having a diploma degree nurses (84.0%) also there was unsatisfactory knowledge of clinical competence before the implementation of the intervention while post-intervention phase there were statistically significant improvements in almost all areas of knowledge reaching to 100.0% and percentage of nurses who had adequate competencies increased from 18.0% before the intervention to 44.0% after the intervention.. **Conclusion:** The study findings concluded that there was statistically significant weak to moderate positive correlations between most nurses' post-intervention scores of knowledge areas and their total competencies. **Recommendations:** Competency-based training programs must be provided to nurses in various levels at different health settings to improve their skills and knowledge. And the curriculum of nursing students should contain competency-based training in nursing care of psychiatric patient to improve their competencies.

**Keywords:** Clinical Competence, Mental Health Nurses, Work-Based Training

### Introduction:

Clinical competency is used as an index for accreditation and evaluation in the hospitals. Full access to clinical competency enables the nurses to play their roles and duties with a proper quality and there are several factors as experience, environment, motivation, personal characteristics, rapid change of health monitoring system, and public awareness are affected nurses' clinical competency (Zakeri et al., 2020).

Competency is a complex and ambiguous concept and the more controversial issues in the nursing standards. Nursing competency is a holistic and integrated concept, which is constructed from complex activities, and it is required for fulfilling nursing responsibilities **(Hamed, Abd Elaziz1& Ahmed, 2021)**.

There was a vision to enhance nursing capacity and a mandate requiring all nursing curricula to be competency based on safe care is the primary goal of health system worldwide because nurses, the key members of treatment care, are often the first ones in contacts with patients, their families, and the society .Therefore, they need high-level clinical competency can assess the patients' needs accurately. In nursing profession clinical competency is a central issue for patient care and clarification of psychiatric nursing competency enhance and embrace recovery-oriented frameworks in their daily practice **(Karaminia et al., 2020)**.

Integration of theory and practice is fundamental to professional education. It requires a combination of learning for work and learning through work and in work. Several studies have shown that one of the factors influencing clinical competence is work experience.

Work-based learning is the term being used to describe a class of university programs that bring together universities and work organizations to create new learning opportunities in workplaces. The recognition of the importance of the work-place in learning is however not new; indeed the economic and social imperatives of developing a workforce able to deal with technological change have driven educational policy and practice since the 19th century **(Flanagan, Baldwin & Clarke, 2020)**.

Learning and assessment plan are created on an individual level in consultation with learner and their employer. work based training means every time a learner goes to work he/she is learning ,demonstrating competence and in the same process working towards completing their qualification ,it is focused on specific need of individual learners and not 'a one-shoe fits all' classroom/group-based approach. Learning and assessment plans are created on an individual level in consultation with learners and their employers. WBT considers the wide range of different backgrounds and experiences of learners and applies this when developing individual learning and assessment strategies **(Fukada, 2018)**.

### **Significance of the study:**

Nurses work in ever-changing healthcare environments. Hence, learning plays a key role in their professional development and continuous improvement of patient care. It is imperative that they are competent to provide the highest quality of nursing care. In order to do this, their initial nursing education must be assured of their competence to practice. In the workplace, there is a need for a culture of professional practice to be developed in order to sustain learning in practice. This study is an attempt to assess the effect of Work-Based Training (WBT) on mental health nurse's clinical competence.

### **Aim of the Study:**

The study aim was to assess the effect of Work-Based Training (WBT) on mental health nurse's clinical competence.

### **Subjects and Methods:**

#### **Research design:**

A quasi experimental design was used in this study.

#### **Setting:**

The study was conducted at Abbass-Helmy center for mental health and addiction treatment

#### **Subjects:**

The subjects for the study consisted of all available staff nurses (n=50) working in the aforementioned setting during the data collection period. This sample size was large enough to demonstrate an improvement in nurses' competence from a presumed pre-intervention level of 50% to an expected post-intervention level of 80% at 95% level of confidence, 80% study power, and with compensation for a dropout rate of about 10%.

#### **Tools for data collection:**

Data for this study was collected by using two tools:

- **first tool: Self-administered questionnaire :**

This was used to assess the effectiveness of the intervention program in improving nurses' knowledge of clinical competence in mental health nursing. It consisted of two parts:

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**Part (1):** It was concerned with personal and job characteristics of the (MPN) nurses which including: age, gender, marital status, qualifications level, and years of experience, attendance of training courses. Residence, previous training courses ,reported income.

**Part II:** This was developed by the researchers based on pertinent literature.( **Andersson, H., arlsson,J., Karlsson, I., and Holmberg,M. (2020)Yao X, Cheng G, Shao J, Wang Y, Lin Y, Zhang C. (2021)** This tool used to **assess** staff nurses' knowledge regarding clinical competence in their workplace the tool consisted of multiple choice questions (MCQs), it contains 69 questions covering 15 knowledge areas (1) psychic disorders (7 questions), (2) nursing process (6 questions), (3) care for psychiatric patient (7questions), (4) care for mania (5 questions), (5) care for addiction (6 questions), (6) psychiatric emergencies (1question), (7) seclusion/restriction (3 questions),( 8) care for suicidal (6 questions), (9) care for total refusal (2 questions), (10) pharmacological treatment (7 questions), (11) electro-convulsive therapy (4questions), (12) rehabilitative therapy

(2 questions), (13) vocational therapy (1 questions), (14) therapeutic communication (10 questions), (15) professional ethics (3 questions).

**Scoring:** For each knowledge question, a correct response was scored 1 and the incorrect zero. For each area of knowledge, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into percent scores. The knowledge was considered satisfactory if the percent score was 60% or more and unsatisfactory if less than 60%

### **Second tool: Clinical competence tool:**

This was used to assess the effectiveness of the intervention program in improving nurses' clinical competence. It was developed by the researcher guided by Moskoei et al (2017). The original tool has 45 items categorized into:

#### **Specific Care competencies: 33 items such as**

“Explain medical procedures before starting them) injection, vital sign checkup, administering medicines”); “Record and report any change in patient mental health and other problems”; “Observe the limits (physical distance, address patient with respectful titles,)”

**Emotional/Moral competencies: 12 items such as** “Demonstrate patience when taking care of patient”; “Have ability to control own emotions (e.g. anger, anxiety, and fear)”.

#### **Scoring system**

Items were scored 0, 1, 2, 3, and 4 for the responses never, rarely, sometimes, often, and always ,respectively. For each domain of competencies, and for the total scale, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into percent scores. The nurse's competence was considered to be adequate if the percent score was 60% or more, and inadequate if less than 60%.

#### **Preparatory phase**

The researchers conducted a comprehensive review of recent, current, national and international related literature in various aspects of the work-based learning and mental health nurse clinical competence. This was done using textbooks and internet search. This helped in designing the data collection tools and intervention program, and for the researcher to be more acquainted with various aspects of the study topics.

#### **Tools validity and reliability:**

Once prepared, the data collection tools were presented to a panel of experts .They thoroughly revised the tools for relevance ,clarity, comprehensiveness, and applicability. Based on their comments, modifications were done in the form of omission of some knowledge questions and rephrasing or re-wording of some items of the competence tool

The reliability of the competence scale was also assessed through measuring its internal consistency. It demonstrated a high degree of reliability with high Cronbach alpha coefficients as the reliability of the competence performance tool was 0.988 also assessed through measuring its internal consistency. While, the knowledge questionnaire was 0.953.

### **Pilot study:**

Upon preparation of the data collection tools and their review by experts, a pilot study was carried out on five nurses representing about 10% of the main study sample. The goal was to assess the clarity of the tools and the feasibility of the study, and also to estimate the time needed for filling them in . Since no major modifications were done based on the results of the pilot study, these five nurses were included in the main study sample

### **Field work:**

The actual field work of the study started on the beginning on March 2020 and ended on December 2020. It included preliminary assessment, planning, implementation, and evaluation phases.

**Assessment phase:** This phase is aimed at identifying the training needs of the nurses it includes pretest of nurse's knowledge and competencies using data collection tools. Such identified needs were used by the researcher in the development of the training program this phase took one month

**Planning phase:** Based on the assessment data and using pertinent literature, the researchers developed the training program. Its main objective was to improve mental health nurse's clinical competence. The program was rigorously reviewed by experts in nursing administration, psychiatric nursing and in education and training, and the program includes the following topics:

- The basic principles of psychiatric nursing
- Nursing assessment
- Nursing care for the psychiatric patient: (obsessive behavior, psychosomatic disorders, addiction ,psychiatric emergencies (agitation / suicide / refusal to eat), and schizophrenia
- Role of nursing in the pharmacological treatment of the psychiatric patient
- Psychiatric nursing skills: observation, restriction of the psychiatric patient, isolation, Electro-Convulsive Therapy (ECT)
- Administrative skills in psychiatric nursing: reports and medical records, communication, teamwork.
- Legal aspects of psychiatric nursing: laws

- regulating the admission of a psychiatric patient to mental health facilities, rules for psychiatric patient entry in mental health facilities
- Ethical aspects of the nursing profession. This phase took two month

**Implementation phase:** The program was implemented in small group sessions. It was more focused on practical and hands-on training along with a theoretical background for the clinical competencies. The training methods involved mini-lectures with discussion, Problem-Based Education, case studies, scenarios, role play, and it include(16 ) session divided into (10)theoretical( 6) practical . The teaching media included data show for computer presentations ,video, whiteboard, and flipchart. The evaluation was ongoing and final. It included pre and post written test and practical assessment. This phase was started with a pretest and ended with a posttest. .

**Evaluation phase:** During this phase, the effect of the educational program on mental health nurses' clinical competence was assessed using the self-administered questionnaire immediately after the program and one month later after finishing program and then three month latter follow up and the observation checklist.

### **Administrative design**

To carry out the study at the selected setting, official letters were issued from the Faculty of Nursing, Ain-Shams University to the directors of Abbass-Helmy Center. The purpose of the study and its procedures were explained to them to get their consent and cooperation. They received a copy of the data collection tools to be acquainted with and to gain their trust and cooperation.

### **Ethical considerations**

Before study conduction, an approval of the study protocol was obtained from the Research Ethics Committee at the Faculty of Nursing, Ain-Shams University. The researcher clarified the aim of the study and its procedures to the staff nurses in the setting to get their oral informed consent to participate in the study. They were informed about their right to refuse participation or withdraw at any time. They were also reassured about the confidentiality and anonymity of any obtained information.

### **Statistical design**

Data entry and statistical analysis was done using SPSS 20.0 statistical software package. Cronbach's alpha coefficient was used to test tools' reliability. Categorical variables were compared using chi-square or Fisher exact tests as suitable .Quantitative continuous data were compared using Mann-Whitney test. Spearman rank correlation was used for assessment of the inter-relationships among quantitative variables and ranked ones. In order to identify the independent predictors of knowledge and competency, multiple linear regression analysis was used and analysis of variance for the full regression models was done. Statistical significance was considered at p-value <0.05.



## Results

PMN nurses (n=50).

### A- Demographic characteristics of nurses.

**Table 1:** Reveals that, the study sample consisted of 50 nurses whose age ranged between 25 and 59 years, median 29.0 years, with the majority being females (92.0%), carrying a diploma degree nurses (84.0%) as presented in Table 1. Their median years of total and psychiatric nursing experience were 7.0 and 6.5 ,respectively. Almost all of them were residing in urban areas) 98 ,(90.0.and all of them reported having previously attended training courses in psychiatric patient care and in Communication.

**Table (2):** Indicates that nurses' pre-intervention knowledge was generally low, particularly regarding the care for a psychiatric patient, where only one of them (2.0%) had satisfactory knowledge. On the other hand, the highest percentage of satisfactory knowledge was related to psychiatric emergencies (42.0%).

**Figure 1:** Nurses' total knowledge before and after intervention Overall, Figure 1 demonstrates improvement of nurses 'satisfactory total knowledge from 4.0% at the pre-intervention phase to 100.0% at the post-intervention phase. The difference was statistically significant ( $p < 0.001$ ).

**Table 3** points to statistically significant improvements in nurses' total performance of specific ( $p < 0.001$ ), and emotional ( $p = 0.002$ ) competencies after the intervention. The percentages of adequate specific and emotional competencies rose from 12.0% and 20.0% before the intervention to 44.0% and 50.0% after the intervention, respectively...

### **Figure 2:** Nurses' total competencies before and after intervention

As illustrated in Figure 2, the percentage of adequate total competencies increased from 18.0% before the intervention to 44.0% after the intervention. The difference was

Statistically significant ( $p = 0.005$ ).

**Table (4):** Concerning nurses' post-intervention score, Table 4 shows that its main statistically significant independent positive predictor was the study intervention, in addition to a higher level of qualification. Conversely, nurses' age and female gender were negative predictors. The model explains 89% of the variation in this knowledge score.

**Table (5):** As regards nurses' post-intervention competency score ,Table5 indicates that that a higher educational level in addition to the post-intervention knowledge score was its statistically significant independent positive predictors. The model explains 75% of the variation in this score.

**Table 1: Demographic characteristics of PMN nurses in the study sample (n=50).**

|  | Frequency        | Percent |
|--|------------------|---------|
| <b>Age:</b>                            |                  |         |
| <30                                    | 29               | 58.0    |
| 30+                                    | 21               | 42.0    |
| Range                                  | <b>25.0-59.0</b> |         |
| Mean±SD                                | <b>32.0±8.6</b>  |         |
| Median                                 | <b>29.0</b>      |         |
| <b>Gender:</b>                         |                  |         |
| Male                                   | 4                | 8.0     |
| Female                                 | 46               | 92.0    |
| <b>Nursing qualification:</b>          |                  |         |
| Diploma                                | 43               | 86.0    |
| Bachelor                               | 7                | 14.0    |
| <b>Experience years (total):</b>       |                  |         |
| <10                                    | 36               | 72.0    |
| 10+                                    | 14               | 28.0    |
| Range                                  | <b>3.0-40.0</b>  |         |
| Mean±SD                                | <b>9.8±8.5</b>   |         |
| Median                                 | <b>7.0</b>       |         |
| <b>Experience years (psychiatric):</b> |                  |         |
| <5                                     | 9                | 18.0    |
| 5+                                     | 41               | 82.0    |
| Range                                  | <b>2.0-28.0</b>  |         |
| Mean±SD                                | <b>8.1±5.2</b>   |         |
| Median                                 | <b>6.5</b>       |         |
| <b>Residence</b>                       |                  |         |
| Rural                                  | 1                | 2.0     |
| Urban                                  | 49               | 98.0    |
| <b>Attended courses in:</b>            |                  |         |
| Psychiatric patient care               | 50               | 100.0   |
| Communication                          | 50               | 100.0   |

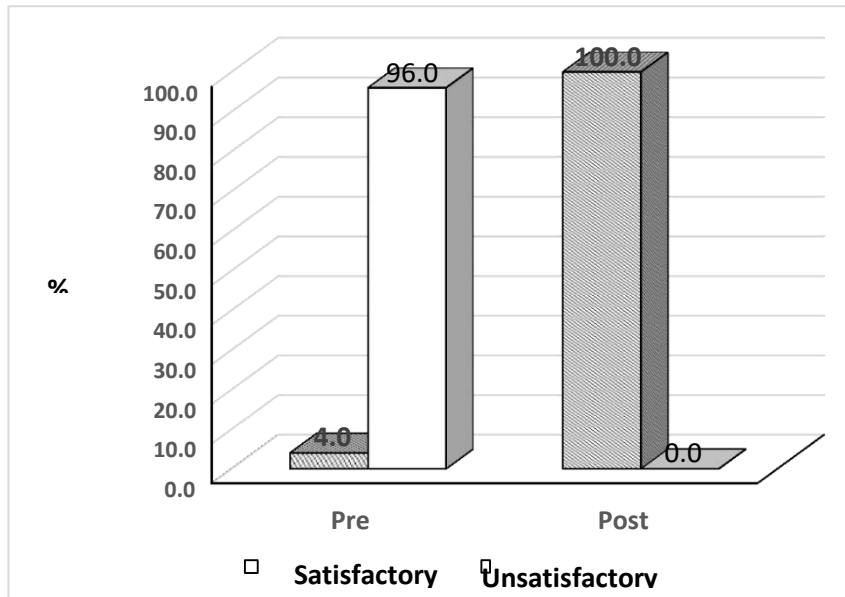
**Table (2): Nurses' knowledge regarding clinical competence (n=50)**

| Satisfactory (60%+) knowledge of: | Time       |      |             |       | X2 test | p-value |
|-----------------------------------|------------|------|-------------|-------|---------|---------|
|                                   | Pre (n=50) |      | Post (n=50) |       |         |         |
|                                   | No         | %    | No          | %     |         |         |
| Psychic disorders                 | 7          | 14.0 | 50          | 100.0 | 75.00   | <0.001* |
| Nursing process                   | 10         | 20.0 | 46          | 92.0  | 52.60   | <0.001* |
| Care for psychiatric Patient      | 1          | 2.0  | 41          | 82.0  | 65.68   | <0.001* |
| Care for mania                    | 13         | 26.0 | 50          | 100.0 | 58.73   | <0.001* |
| Care for addiction                | 19         | 38.0 | 25          | 50.0  | 1.46    | 0.23    |
| Psychiatric emergencies           | 21         | 42.0 | 34          | 68.0  | 6.83    | 0.009*  |
| Seclusion/restriction             | 12         | 24.0 | 50          | 100.0 | 61.29   | <0.001* |
| Care for suicidal                 | 6          | 12.0 | 44          | 88.0  | 57.76   | <0.001* |
| Care for total refusal            | 4          | 8.0  | 41          | 82.0  | 55.31   | <0.001* |
| Pharmacological treatment         | 11         | 22.0 | 49          | 98.0  | 60.17   | <0.001* |
| Electro-convulsive Therapy        | 8          | 16.0 | 49          | 98.0  | 68.58   | <0.001* |
| Rehabilitative therapy            | 9          | 18.0 | 45          | 90.0  | 52.17   | <0.001* |
| Vocational therapy                | 7          | 14.0 | 47          | 94.0  | 64.41   | <0.001* |
| Therapeutic communication         | 5          | 10.0 | 49          | 98.0  | 77.94   | <0.001* |
| Professional ethics               | 17         | 34.0 | 48          | 96.0  | 42.24   | <0.001* |

(\*) Statistically significant at p<0.05



**Figure1: Nurses' total knowledge before and after intervention**



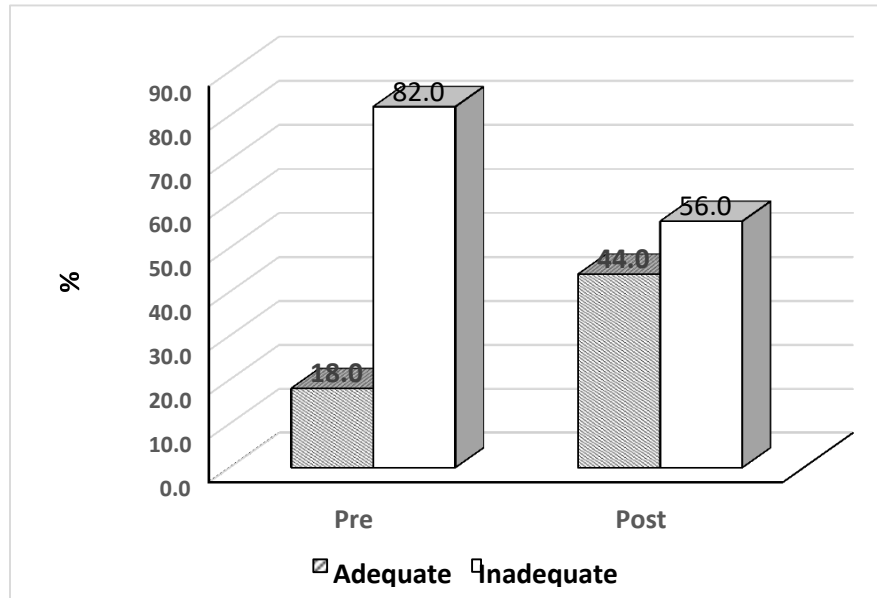
(\*) Statistically significant at  $p < 0.05$

**Table 3: Nurses' performance regarding total competencies (n=50)**

|                         | Time       |      |             |      | X <sup>2</sup> test | p-value |
|-------------------------|------------|------|-------------|------|---------------------|---------|
|                         | Pre (n=50) |      | Post (n=50) |      |                     |         |
|                         | No.        | %    | No.         | %    |                     |         |
| Specific competencies:  |            |      |             |      |                     |         |
| Adequate                | 6          | 12.0 | 22          | 44.0 | 12.70               | <0.001* |
| Inadequate              | 44         | 88.0 | 28          | 56.0 |                     |         |
| Emotional competencies: |            |      |             |      |                     |         |
| Adequate                | 10         | 20.0 | 25          | 50.0 | 9.89                | 0.002*  |
| Inadequate              | 40         | 80.0 | 25          | 50.0 |                     |         |

(\*) Statistically significant at  $p < 0.05$

**Figure 2: Nurses' total competencies before and after intervention**



(\*) Statistically significant at  $p < 0.05$

**Table 4: Best fitting multiple linear regression model for the post-Intervention knowledge score**

|                      | Unstandardized Coefficients |            | Standardized Coefficients | t-test | p-value | 95% Confidence B |       |
|----------------------|-----------------------------|------------|---------------------------|--------|---------|------------------|-------|
|                      | B                           | Std. Error |                           |        |         | Lower            | Upper |
|                      | Constant                    | 19.69      |                           |        |         | 8.19             |       |
| Intervention         | 50.16                       | 1.80       | 0.92                      | 27.876 | <0.001  | 46.59            | 53.73 |
| Higher qualification | 12.41                       | 2.61       | 0.16                      | 4.750  | <0.001  | 7.22             | 17.59 |
| Age                  | -0.53                       | 0.11       | -0.16                     | 4.905  | <0.001  | -0.74            | -0.31 |
| Female gender        | -8.38                       | 3.37       | -0.08                     | 2.487  | 0.015   | -15.06           | -1.69 |

r-square=0.89 Model ANOVA:  $F=206.54$ ,  $p < 0.001$

Variables entered and excluded: marital status, residence, income, total and current experience

**Table 5: Best fitting multiple linear regressions model for the post Intervention competency score**

|                        | Unstandardized Coefficients |            | Standardized Coefficients | t-test | p-value | 95% Confidence Interval for B |       |
|------------------------|-----------------------------|------------|---------------------------|--------|---------|-------------------------------|-------|
|                        | B                           | Std. Error |                           |        |         | Lower                         | Upper |
|                        | Constant                    | 8.41       |                           |        |         | 2.06                          |       |
| Higher Qualification   | 28.56                       | 2.37       | 0.62                      | 12.071 | <0.001  | 23.86                         | 33.25 |
| Knowledge score (post) | 0.30                        | 0.03       | 0.52                      | 10.115 | <0.001  | 0.24                          | 0.36  |

r-square=0.75 Model ANOVA: F=146.11, p<0.001

Variables entered and excluded: age, gender, marital status, residence, and income, total and current experience, intervention

### Discussion:

Work-Based Learning is the bringing together of self-knowledge, expertise at work and formal knowledge. It takes a structured and learner-managed approach to maximizing opportunities for learning and professional development in the workplace. The development and assessment of nursing competence can be facilitated through Work-Based Learning, although this may require pedagogic and structural changes within nurse education (**Flanagan, Baldwin & Clarke, 2020**).

Psychiatric nurses have the requisite expertise to care for persons with mental disorders such as schizophrenia, bipolar disorder, and dementia. In hospitals, the role of the psychiatric nurse generally includes taking care of patients' basic needs, conducting assessments, administering medication, monitoring medication side effects, ensuring patient safety, developing therapeutic relationships with patients, teaching symptom management, and collaborating with physicians and interdisciplinary teams. Psychiatric nurses must engage in continuous learning to ensure they possess the professional competence to perform these roles successfully (**Yao X, 2021**). The present study was carried out to assess the effect of work-based training on mental health nurse's clinical competence.

Regarding Nurses' knowledge throughout intervention, the current study revealed that there was unsatisfactory knowledge of psychiatric disorder before implementation of the intervention while post-intervention phase, there were statistically significant improvements in almost all areas of knowledge, regarding the knowledge about psychiatric disorders, care for mania, and seclusion and restriction. Although the knowledge about the care for addiction improved, the difference was not statistically significant

Knowledge deficiency might be explained by the lack of sufficient information about psychiatric disorder in the curricula of nursing education. It could be taught only as a theoretical topic with no practical training or application and need more awareness program about psychiatric illness also thought that care for those with mental disorders was inadequate due to lack of training or expertise, and this belief was correlated with the view that those with mental disorder were difficult to treat .On the same line, the result reported by **(Karaminia, 2020)** who Found most of the study sample had unsatisfactory knowledge of psychiatric disorder before implementation of the intervention

Regarding nurses' specific competencies before and after intervention, the current study revealed that there that very low performance of specific competencies by the nurses in the study sample before the intervention. It ranged for zero for the use medical procedures as a chance to communicate with the patient, to slightly less than quarter for addressing patient by name, and the use of a variety of references (e.g. family, medical file, etc.) to collect information while at the post-intervention phase, statistically significant improvements were noticed in all specific competencies. This result due to inadequate awareness and concern training of psychiatric nurses with this area about patient's safety goals and standard of care.

On the same line, the result of **Andersson et al., (2020)** who studied competency requirements for the assessment of patients with mental illness in somatic, emergency care: found that the more than two third of study sample had low performance regarding specific competency.

Regarding nurses' specific

Concerning Nurses' total competencies before and after intervention. The result of the current study revealed that statistically significant improvements in nurses' total performance of specific and emotional competencies after the intervention. This might be due to psychiatric nurses need special training with innovated teaching technique to improve their competencies to meet advanced changes in nursing care .

On the same line , the result reported by **Zakeri et al., (2020)** who conducted Is nurses' clinical competency associated with their compassion satisfaction, burnout and secondary traumatic stress found that the majority of studied sample are had satisfactory performance

Regarding the best fitting multiple linear regression models for the post intervention knowledge score, there was reveals statistically significant independent positive predictor of nurses', in addition to a higher level of qualification. Conversely, nurses' age and female gender were negative predictors.

This result might due to variations of nurses age play a major role to delivery information through interesting videos, colorful pictures while younger and less experienced nurses therefore need a long-term perspective in order to improve their practice and gender

(male) is very interested due to is closed contact with patients rather than females, all of this can be a negative predictor.

This finding is supported by these results was agreed with **Sheikh bahaeddinzadeh., (2021)** who studied Meta Competency: meta competency: prerequisites of msc psychiatric nursing students promoting. Who reported that have statistically significant independent positive predictor of nurses' post-intervention knowledge score were their higher educational level.

## **Conclusion**

This study was undertaken to assessing the effect of Work-Based Training (WBT) on mental health nurses' clinical competence. The study findings concluded that there was a statistically significant weak to moderate positive correlations between nurses' post-intervention scores of knowledge areas and their specific, emotional, and total competencies. . Moreover, there were statistically significant moderate positive correlations between their pre-, post-, and overall scores of specific, emotional, and total competencies and their qualification level. This finding confirmed the research hypothesis which was "Work-based training will have a positive effect on mental health nurses' clinical competence.

## **Recommendations**

**Based on main study findings, the following recommendations are suggested:**

### **For service:**

- ✓ Competency -based training programs must be provided to nurses in various levels at different health settings to improve their skills and knowledge.
- ✓ Nurses should realize the competency -based practices and use it as a habit.
- ✓ Regular workshops and seminars for the head nurses and their staff should be held periodically in the staff training and development centers in each hospital.

### **Educational level**

- ✓ The curriculum of nursing students should contain competence based training to improve their skills and competencies.

### **On Policy Makers Level:**

- ✓ Periodical meetings for head nurses to discuss several ways to ensure adherence with competency and policies, and set action plans which help in reduce this barriers.

### **On Research level:**

- ✓ Evaluating the effect of competency -based training program for staff nurses and its effect on productivity.

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