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Nursing Section

Effect of Training Program to Improve Observational Skills of Psychiatric Nursing Students

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BY-NC-ND

ABSTRACT

Introduction: Training program is believed to enhance nursing students' knowledge and performance in observational skills, which can be an essential factor in their future practice as nurses working in a psychiatric institution.

Aim: This study aimed to assess the effect of training program for psychiatric nursing students to improve their observational skills.

Materials and Methods: This study used an interventional design. The study sample included 80 nursing students undergoing clinical practice in psychiatric nursing during 2019-20 (10 months). The tools used for data collection were questionnaire to assess nursing student's knowledge and an observational checklist to measure the performance. Percentage distribution, chi-square, and correlation coefficient were used to determine influence of training program on nursing students.

Results: The training program imparted to students was effective as indicated by a highly significant difference between pre/post-training programs in all items of psychiatric nursing students' knowledge. Furthermore, a highly significant difference between pre/post-training programs in all elements of students' observational rating scale was also evident.

Conclusion: The training program improved nursing students' knowledge and performance. Particularly, their observational skills have brought confidence in their exposure and boast their ability in caring for their patients.

Keywords: Knowledge, Mental health, Nurse practitioner

INTRODUCTION

Observation is an integral part of nursing assessment. Information gathered by nursing observation helps in making clinical decisions. It is widely known that observations are not consistently carried out as expected or documented [1]. Hence, development of observational skills should start from the nursing school education programs to prepare student nurses for clinical settings, especially in mental health care [2]. The practice of observing is one that all mental healthcare nurses are familiar with, where those being cared for, may present with a variety of risks; suicide, self-harm, aggression, violence, physical illness and may also experience the physical side effects of psychotropic medication [3]. In the United Kingdom (UK) and United States of America (USA), it has been suggested that up to 50% of in-patients are likely to be placed on one-to-one observation, accounting for up to 20% of the total USA nursing budget, and costing the UK National Health Service (NHS) an estimated £35 million per year [4].

It is easy to overlook the fact that nurse is the only one who is with the patient long enough each day to pick up minute cues, which can add to highly significant observations. No other member of the team has the opportunity to do this, and it is essential that nurses do not undervalue this skill [5]. Several studies on improving observational skills among psychiatric nursing students have been reported from different parts of the world. However, many of these studies were brief and did not include all the components of training program for students' to identify specific behavioural conditions and knowledge towards mental health illness [6].

This study is directed mainly towards training the students about observing the patients in the clinical area through developing and refining new techniques for understanding of psychiatric illness. The objective of this study was to evaluate the effect of training program for psychiatric nursing students to improve observational skills through assessing students' knowledge and performance about observational skill, identifying and spotting the students' needs to improve their observational skills, supplement the student nurses with a training program for improving their observational skills and evaluate the degree of students' improvement in their knowledge and performance.

MATERIALS AND METHODS

A quasi-experimental research design was utilised to determine the study's objective. The study was carried out at the Department of Nursing, College of Applied Medical Sciences, Shaqra University. This study was approved by Internal Review Unit, College of Applied Medical Sciences, Shaqra University (Unit number 20-202). Before conducting the survey, students were assured that the data were collected from questionnaires will remain confidential and that no personal identification was required. Students were informed that they could refuse to participate in the study, or withdraw from it at any time without giving any reason. Consent was acquired from every student who agreed to participate in the study.

The sample included 80 nursing students enrolled in the academic year 2019-2020 undergoing the psychiatric mental health nursing experience. A non-random sampling i.e., convenience sampling was used. All students in the college (n=156) were invited, the sample size was calculated using 95% confidence level and 5% margin of error to arrive at the required sample size which was found to be 72. The participants were exposed to the program as a stratified random sample according to their previous academic year. The eighty participants were classified into five groups, each group consisting of 16 students to help the researcher evaluate the students' observational abilities and determine what they missed.

The following instruments were used for data collection:

The pre-test format was applied for assessing the students' knowledge about observation. The time allotted for the pre-test was one hour and to be answered before and after the program. The pre and post-test contained two forms of questions; Questionnaire 1 contained theoretical form, which had multiple-choice questions and cross-matching related to definition, purposes, types, principles, importance of observation, advantages, disadvantages, process of

observation, obstruction to view, steps to overcome this obstruction and psychological factors of consideration for psychiatric nursing.

The second part of the tool is an observational checklist for psychiatric patients in the clinical area. This checklist was designed by the researcher, which contained knowledge related to mental illness such as facial expression, appearance, dress, personal hygiene, posture, appetite, patient relationship, motor activity, orientation, consciousness, memory, thought, mood, affect, attention, speech and perception.

Scoring system: The scoring system for the answers was "1" for a wrong answer, and "2" for a true answer, the total score for this tool was evaluated as follows:

26=Poor knowledge

27-39=Average knowledge

40-52=Good knowledge

The observational rating scale for each student was the second tool designed by the researcher and was constructed basically for the following purposes: identification of minimal standards of performance of each ability to be developed in the clinical area, measuring and monitoring of the proficiency of the students' performance.

This scale contained ten expected abilities, and each capacity was rated in three possible ways:

1) Weak means the students failed to reach the required level of performance for the skill.
2) Good means the students meet the standard performance.
3) Excellent means skills performance of the natural ability was perfected.

Scoring system: The scoring system for the answers was "1" weak performance "2" for good performance and "3" for excellent performance; the total score for this tool was evaluated as follows:

10-16=Weak performance

17-23=Good performance

24-30=Excellent performance

Operational Design

The operational design of the study includes the preparation phase, pilot study, and fieldwork for data collection.

Preparatory phase includes reviews of local and international related literature. Various aspects of the research problem, which helped the researcher to be acquainted with the magnitude of the problem, and prepare the required data collection tools. The researcher then tested the data collection tools for face and content validity using interrater agreement method by five experts from the psychiatristic nursing department. The interrater validity results were modest. On the other hand, the reliability test were performed using test retest method. Spearman's rank correlation coefficient were showed acceptable reliable results.

Pilot study: During the preparatory phase, a pilot study was applied to 10 students, chosen randomly from the mental health nursing students. The pilot study aimed to evaluate the content of the pre-post format, clarity of language, and identify the validity and reliability of the items.

Fieldwork: The fieldwork was done on 80 students. They were classified into five subgroups, and each consisted of 16 students. Each session lasted approximately 30 to 60 minutes with a total of 24 sessions. The program was implemented in the form of brainstorming and group discussion. Suitable teaching aids prepared specially for the program were: booklet, flipchart, video, and real situations.

Training Program Phase

The first session contained an orientation to the plan and its purpose, second; students were informed about the items and place of the courses. Third session covered issues of booklet guidelines; the duration of each session was one hour. Twenty sessions were conducted and they included four activities:

1. Observational exercises
2. Actual clinical situations
3. Role-play about observation.
4. Group discussion

The duration of each practice session was one hour, including a period of discussion:

1) Booklet guidelines

The researcher distributed booklet guidelines to help students identify some information about the observation.

2) Role-play

The main aim of the role play was to help students to live the experience, and to be able to analyse the situations. Providing students with the opportunity to work with and observe other students and encourage students to discriminate between functional and less ethical aspects of performance. The role play sequence included:

1) Read the context and goal
2) Enact the nurse/patient roles
3) Discuss the effectiveness of the observation demonstrated in playing the nurse role with feedback from the student observations.
4) Students' questions in role-playing were redirected back to the students themselves for discussion during the role-play itself.

Learning activities: these were based mainly on the followings:

1. Acting the role play.
2. Observing
3. Working in a group to answer specific questions related to the role play
4. Sharing ideas and experience discussion and evaluation

3) Group discussion

The main aim was to provide an opportunity for a small group of students to meet with the instructor at the end of a practice session in the ward for the following.

1. Offer opportunities for providing guidance and feedback to the students about their own rate of progress.
2. Determine the extent and the kind of observation students' make, as they progress from simple to multisensory observation in a variety of nursing situations.
3. Offer an opportunity to discuss their own interpretation of their observation while being guided by the clinical teacher in understanding the overt and covert meaning of their observation.
4. Group discussions were held during the days of clinical areas from 1 pm to 2 pm to discuss items of observation during the time of the clinical area.

4) Actual clinical situation.

The main aim was to let the students examine their skills in the light of new ideas or change their attitudes about the way, they approach their work in a clinical area.

a. **Help students to pick up especially patients' symptoms during different situations:** The techniques that were allowed in the clinical area to achieve this objective were brainstorming technique. In this technique, the students' group produced a list of everything they swam in a set situation when the file is complete, and they then picked out elements that were of value and those which were not.
b. **Record keeping in participant observation:** In this technique, the students' record events and conversation occurred in the clinical area.

c. **Talking through a situation in the clinical area:** This technique was applied daily during clinical area from 8 am to 12 pm.

d. **Observational skills:** The aims of the observational exercises were:

I. To help students understand the interdisciplinary observation as seeing, hearing, touching, and smelling.

II. Students learn to observe specific details about patients' and patients' environment in order to make an accurate assessment and give quality nursing care.

III. Students' ability to master observational skills without specific assistance in learning how to observe as well as what to keep.

The observational exercises were done daily, and students were divided into five groups to help the researcher evaluate the students' observational abilities.

Observational exercises done in the clinical area were:

a. Daily use hocus-focus, which are found on the comic pages of many newspapers that ask the reader to observe six differences in details between two similar panels

b. Blindfold the students and ask them to identify colour. These exercises help students realise that their observations are often inadequate because they do not use all of their senses.

c. Asking students to write down five specific comments about their patients and five others about the patients' immediate environment.

d. Requiring students' to keep a daily log of patients and environmental observation, such as facial expression, appearance, etc.

e. Using time sampling. In this technique, the student could make specific observations during the first 30 minutes with the patients, 30 minutes halfway through the morning, and 30 minutes near the end of the clinical practice.

STATISTICAL ANALYSIS

The collected data were organised, coded, computerised, tabulated, and analysed by using the Statistical Package for Social Sciences (SPSS), version 24. The analysis performed included percentage distribution, chi-square (χ^2) and correlation coefficient. A $p<0.05$ was considered as statistically significant.

RESULTS

Socio-demographic profile of the respondents showed that more than half of students were aged between 19-20 year-old and mostly single. Furthermore, all were full time students and 95% of them didn't have any preparatory training on psychiatric nursing observation as reflected in [Table/Fig-1].

Items	No=80	%
Age (years)		
19<20	50	62.5
20<30	30	37.5
Marital status		
Married	18	22.5
Single	62	77.5
Work beside studying		
Yes	14	17.5
No	66	82.5
Attend training courses about psychiatric nursing observation		
Yes	4	5
No	76	95

[Table/Fig-1]: Socio-demographic characteristics of participating students.

Comparison of pre-program and post-program scores in all items related to students' knowledge revealed a highly significant improvement in student's scores ($p<0.001$). Though the level of significance was high in all items, the χ^2 value ranged from 9.20 to as high as 47.216 showing variations in students' response in different items. The results were an indication that knowledge related to observation and knowledge related to mentally ill patients were significantly enhanced due to training programs, as shown in [Table/Fig-2,3].

Similarly, a significant difference ($p<0.001$) in observational rating scale was observed in all ten items, when pre-program scores were compared with post-program scores. The χ^2 values ranged from 19.4 to 56.9 and this is shown in [Table/Fig-4]. As seen in [Table/Fig-5,6], a highly statistically significant improvement in post-nursing intervention results compared to pre-intervention ($p<0.001$) was also observed in prevalence of total knowledge score and total observational rating score of nursing students.

DISCUSSION

Observation for the nurse was defined by Al-Moteri MO et al., as a 'new awareness of the whole situation, combined with the ability to control and direct attention towards correctly selected specific stimuli' [7]. Observation is a common factor in all areas of nursing care. The technique of view is concerned with four facts: what to observe, how to follow, the implications of view and action following the observation [8].

Concerning the socio-demographic characteristics of the nursing students, more than three-fifth of nursing students were in the age group 19 to 20 years with a mean age of 20.45 and more than three quarters were single. Also, the highest percentage of them

Item	Pre-program			Post-program			χ^2	p-value
	Poor	Average	Good	Poor	Average	Good		
Knowledge's related to observation								
Definition of observation	2	42	36	30	34	16	33.034	<0.001
Purposes of observation	50	18	12	15	35	30	32.013	<0.001
Types of observation	58	20	2	18	34	28	47.216	<0.001
Principles of observation	45	22	13	14	31	35	27.90	<0.001
Importance of observation for psychiatric nursing	34	25	21	11	29	40	17.97	<0.001
Obstruction to observation	37	35	8	27	30	23	9.205	<0.001
Steps to overcome the obstruction	50	21	9	19	30	31	27.616	<0.001
Advantages and disadvantages of observation	30	21	29	43	26	11	10.974	<0.001
Psychiatric observation process	46	23	11	13	27	40	35.268	<0.001
Psychological factors of observation	37	27	16	14	36	30	15.919	<0.001
Role of psychiatric nursing students in observation	29	30	21	8	34	38	17.067	<0.001

[Table/Fig-2]: Comparison between psychiatric nursing students' knowledge related to observation -pre/post observational training program (n=80).
p<0.05 statistically significant

Related knowledge	Pre-program			Post-program			χ^2	p-value
	Poor	Average	Good	Poor	Average	Good		
Facial expression	37	40	3	16	26	38	41.169	<0.001
Appearance	34	35	11	10	37	33	24.146	<0.001
Dress	45	29	6	14	35	31	33.743	<0.001
Personal hygiene	34	35	11	10	37	33	24.146	<0.001
Posture	27	35	18	8	26	46	23.892	<0.001
Appetite	24	37	19	5	19	56	36.487	<0.001
Patient relationship	42	30	8	10	26	44	44.901	<0.001
Motor activity	53	19	8	19	29	32	32.539	<0.001
Orientation and consciousness	30	29	21	3	21	56	34.280	<0.001
Memory	38	24	18	13	41	26	18.156	<0.001
Thought	37	18	25	14	21	45	16.318	<0.001
Mood	35	29	16	12	37	31	17.012	<0.001
Affect	49	7	24	15	39	26	40.403	<0.001
Attention	20	10	50	42	22	16	28.822	<0.001
Speech	44	19	17	17	26	37	20.447	<0.001
Perception	30	30	20	12	28	40	14.450	<0.001

[Table/Fig-3]: Comparison between psychiatric nursing students' knowledge related to mentally ill patient-pre/post observational training program (n=80).
p<0.05 statistically significant

Item	Pre-program			Post-program			χ^2	p-value
	Weak	Good	Excellent	Weak	Good	Excellent		
Students ability to identify signs and symptoms observed on the patients	37	37	6	27	24	29	19.447	<0.001
Students ability to describe signs and symptoms observed on the patients	21	34	25	8	14	58	27.281	<0.001
Students ability to identify the importance of accurate recording of observation in planning care and evaluating the patients progress	30	34	16	6	18	56	43.145	<0.001
Students ability to identify extent of their observation toward psychiatric patients needs	36	24	20	14	14	52	26.534	<0.001
Students ability to communicate comprehensively and intelligibly during recording of their observation	38	18	24	19	10	51	18.339	<0.001
Students ability to completing a checklist observation on the patients accurately	31	27	22	5	6	69	56.416	<0.001
Students ability to describe their observation in a given situation	34	31	15	14	5	61	54.953	<0.001
Students ability to observe minor variation of patients behaviour	27	19	34	8	5	67	29.263	<0.001
Students ability to observe physical symptoms of psychiatric patients	29	29	22	10	14	56	29.309	<0.001
Students ability to use the senses of observation systematically	35	19	26	11	10	59	28.127	<0.001

[Table/Fig-4]: Comparison between psychiatric nursing students' observational rating scale -pre/post training program (n=80).
p<0.05 statistically significant

Items	Pre-program		Post-program		χ^2	p-value
	No	%	No	%		
Poor	40	50	16	20	31.206	<0.001
Average	22	27.5	11	14		
Good	18	22.5	53	66		
Total	80	100.00	80	100.0		

[Table/Fig-5]: Prevalence of total knowledge score of nursing student's pre/post observational training intervention (n=80).
p<0.05 statistically significant

Items	Pre-program		Post-program		χ^2	p-value
	No	%	No	%		
Weak	26	32.5	6	7.5	38.788	<0.001
Fair	30	37.5	11	13.75		
Good	24	30	63	78.75		
Total	80	100.00	80	100.00		

[Table/Fig-6]: Prevalence of total observational rating score of nursing student's pre/ post observational training intervention (n=80).
p<0.05 statistically significant

didn't work besides studying and did not attend training courses about psychiatric nursing observation. Stress is known to affect observational skills. Stress depends on age, relationship and work [9]. Since, students were single and not working, it can be said that they had low levels of stress. Furthermore, students were from 4th year nursing and they had experience, which also might have contributed to enhanced learning. It is known that making observations without knowledge is like seeing the patients through dark glasses [10]. So, training younger 4th year students about observational skills led to enhanced score during post-program study. A similar result with training was reported by El-Salamony A et al., wherein students who had received training in dealing with different situations in the clinical area were able to observe accurately the actual mental state of the patients than those who had not [11].

The finding of the present study revealed a highly significant difference between the pre/post-training programs in all items of students' observational rating scale. This indicates that students trained in observational skills succeeded in recording their observations comprehensively, intelligibly and accurately. Students' enhanced score may also be due to student's excursion into the field of experience through a series of group meetings. During these meetings, students exchanged accounts of their skills and discussed the content of each other's written report on the patients. Students were also taught how to identify changes in patients' physical state such as constipation or diarrhoea, as an indication of physical disease. In addition, they were guided that it is important for a psychiatric nurse to be thoroughly familiar with adverse effects such as nausea and vomiting that may result from administration of psychotropic drugs and that these should be reported to the medical staff [12].

According to George's University Hospitals [13], observations by nurse would lose their value, if accurate and complete records of their findings are not kept. George's University Hospitals also added that when observing the patient's, the nurse should not only follow the patient's conscious level, colour, vital signs at intervals but the nurse should remain receptive or sensitive to stimuli emitted by their patients. The results also showed that the students who were trained for observation had succeeded in describing patients' signs and symptoms. It may be attributed to students' view in a given situation such as selected experiences that were designed to provide increasingly complex observation of physical manifestation and students were also trained in role-play techniques to simulate events and behaviour. The present study design and its results provide a comprehensive methodology to increase nurses' perception and this protocol can also be used by healthcare institutes to train future nurses.

A highly significant improvement in post-nursing intervention compared to pre-intervention ($p<0.001$) regarding the prevalence of total knowledge scores of nursing students was observed. This was due to role-play techniques that helped students to pick up minute cues, which added up to significant observation during real situations and activities.

This study presented a highly statistically significant improvement in post nursing intervention results compared to pre-intervention ($p<0.001$) regarding the prevalence of the observational rating scale of nursing students. It may be due to the situation enacted by the students to play the role of the patients during aggression, and other students observing them and picking up minute cues, which added up to the highly significant observation. It may also be due to the techniques that were used in the different situations such as brainstorming techniques, wherein student groups produced a list of everything they saw in a set of the case, and they were picking out the elements irrespective of value. This technique helped students to produce observational priorities as well as establishing a group of consensus on observation. Group discussions that were held daily during the clinical area to discuss essential items related to the situation that suddenly happened in the clinical area such as epileptic fit, aggressive or excited patients, and suicidal patients also contributed to increased observational scores. The students were trained in reporting all elements of change of the patient's behaviour and not only the overt or observable behaviour but also the covert or hidden causes of the action.

Primarily the objective of the study brings the results of the study show that training program using the tools mentioned in this study will help future nurses in their observational skills for better understanding about the essential behavioural approach in dealing with patients with mental health illness. Furthermore, this will be beneficial for healthcare institutions and boast the confidence of the future nurses' ability to provide optimal health care for all patients having mental illness.

CONCLUSION(S)

To conclude, training program enhanced nursing students' knowledge and performance in observational skills. A highly statistically significant difference was observed between pre/post-training programs in all items of psychiatric nursing students' knowledge. All elements of students' observational rating scale were also increased. This goes to show that early trainings for future nurses can be effective when the program will be adopted. Thus it would be beneficial for both the future nurses and the healthcare institutions, if the educational institutions would accommodate the training programs this study has provided.

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