Effect of Educational Intervention on Psychiatric Nurses' Knowledge Regarding Ethical and Legal Issues for Psychiatric Patients

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Abstract

Background: Nurses' knowledge of legal and ethical aspects of healthcare is essential for all nursing professionals because nurses are expected to be professionally competent, providing high-quality care in an ethical manner.**Aim:** To assess the effectsof an educational interventionon psychiatric nurses' knowledge regarding legal and ethical issues associated with psychiatric patient treatment. **Design**:A quasi-experimental, single-group, pre-test–post-test design was used. **Setting**:Al-Abbasia Mental Health Hospital in Cairo, Egypt.**Sample:** A convenience sample of 50 psychiatric nurses was recruited.**Methods:**Structured,self-administered knowledge questionnaire developed by the researchers was used to assess psychiatric nurses' knowledge levels regarding legal and ethical responsibilities.**Results**: Nurses' satisfactory knowledge before the intervention ranged between 4% for legal aspects to 62% for violence and neglect. All areas of knowledge significantly improved after the intervention, with satisfactory knowledge ranging between 76% for definitions to 98% for neglect and unprofessional practices. Overall, only one (2%) nurse had satisfactory total knowledge before the intervention, which increased to 90% after the intervention (p<0.001). Nurses' knowledge before the intervention was significantly and positively correlated with their qualifications. After the intervention, knowledge correlated negatively with their age and years of experience.**Conclusion**:The educational intervention was effective for improving psychiatric nurses' knowledge of the legal and ethical issues associated with their practice. **Recommendations**: This educational intervention is recommended for inclusion in the orientation program for the hospital,and in-service education programs should be conducted for nursing staff working in similar settings.

Keywords: psychiatric nurses, legal, ethical issues, and educational intervention

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Introduction

Psychiatric health represents one of the most complex fields for nursing due to the nature of the patients,who may express various forms of maladaptive behaviors or aggression**(Graham et al. 2020)**. Additionally, the role of psychiatric nurses extends beyond their patients to their patients' families and communities. Therefore, nurses must be highly aware of psychiatric patients' needs and legal rights in accordance with established ethical and legislative standards **(Eren, 2014; Barloon and Hilliard, 2016)**. Nurses' knowledge of legal and ethical aspects is critical for all nursing professionals because nurses are expected to be professionally competent and provide ethical, high-quality care (**Aly et al. 2020**).

In addition, nurses are at the forefront of patient care and must gather relevant information, apply expertise, and make decisions in response to complex

ethical conditions to provide patients and their families with the most effective and appropriate treatments.In addition to professional competencies, psychiatric health nurses must also be able to create an encouraging ethical climate to assist in the psychiatric patients' recovery while respecting their dignity and ensuring their safety (**Smith and Herber, 2015; Salzmann-Erikson, 2018).**

Nursing ethics ultimately aims to foster patients' well-being through the provision of high-quality nursing care. Many organizations have established guidelines and standards to help nurses and other health care professionals provide quality care while abiding by ethical principles. For instance, the International Council of Nurses (ICN) for professional behavior and the World Health Organization (WHO) have set guidelines establishing the ethically appropriate practices and competencies considered necessary to meet quality nursing care standards **(World Health Organization, 2005; International Council of Nurses, 2012)**. Moreover, the Code of Ethics for Registered Psychiatric Nurses introduced a framework for nurses' professional roles and accountability relative to ethical principles and standards **(Eren, 2014)**.

Psychiatric health nurses are the healthcare team members that spend the most time with their patients,which can expose nurses to more ethical problems, particularly when working with mentally disturbed patients. **Aydin and Ersoy (2017)** found that psychiatric nurses encounter many ethical problems, such as patient privacy and confidentiality, competence, seclusion, restraint, and forced treatment or hospitalization. Moreover, a study performed at Al-Abbasia Mental Health Hospital in Cairo, Egypt, reported many violations of basic patient and human rights, with patients being exposed to neglect and violence **(Fawzy, 2015)**. Hence, psychiatric

nurses require support to help them address ethical problems without suffering from moral distress **(Ohnishi et al., 2019).**

Sabra and Hossny (2020) argue that deficiency in knowledge related to ethical and legal responsibilities could expose nurses to illegal situations. A previous study by **Aly et al. (2020)**concluded that enhancing nurses' knowledge of both ethical and legal aspects and the ethical climate could significantly improve nurses' ethical practices and competencies and reduce medical errors, and attempting to improve nurses' legal and ethical knowledge is highly recommended.

A study by**Drew et al. (2011)**showed human rights violations against mentally ill individuals occur globally, especially in low- and middle-income countries. In Egypt,**Abdel-Aziz et al. (2018)**conducted a study to assess physicians' healthcare ethics and law knowledge at educational and non-educational hospitals, and the results indicated a gap between current knowledge of healthcare ethics among health-care workers and that demanded by hospital management policies. Therefore, the authors recommended proper and intensive educational interventionsto improve the awareness and practice of healthcare ethics among all healthcare staff, with continuous monitoring at regular intervals. In addition, research must cover existing gaps in knowledge regarding healthcare ethics.

Significance of the study

In Egypt, inclusive legislation for mental health has been enacted to safeguard the rights of mentally ill patients,which includes the Egyptian Nursing Profession Code of Ethics,established by the Egyptian Nursing Syndicate (**Egyptian Nursing Syndicate, 1976**), and the Egyptian New Mental Health Law 71/2009 (**Eldakhs, 2013**). However, many current psychiatric

health nursing staff are not aware of these legislations and codes, which might lead to frequent violations of patient rights. This study was conducted as a first step toward improving psychiatric nurses' knowledge of the legal and ethical issues associated with the treatment of psychiatric patients.

Aim of the study

To assess the effects of an educational intervention on psychiatric nurses' knowledge regarding the legal and ethical issues associated with the treatment of psychiatric patients. The research hypothesized that psychiatric nurses' knowledge regarding legal and ethical issues would demonstrate significant improvements after the implementation of the educational intervention.

Subjects and methods

Research design

A quasi-experimental, single-group, pre-test–post-test design was used in this study to compare psychiatric nurses' knowledge regarding the legal and ethical issues associated with the treatment of psychiatric patients before and after the implementation of an educational intervention.

Setting

This study was conducted at Al-Abbasia, one of the bestpublic mental health hospitals located in Cairo, Egypt, which serves as a catchment area for approximately one-third of the Greater Cairo area (Qaliubia, Cairo, and Giza). Patients from other parts of the country may also come to this hospital for medical services; therefore, this hospital serves both rural and urban areas. The hospital features 1,474 beds (the total bed capacity of Egypt is 5,483) across 36 inpatient wards. Therefore, the hospital provides a representative sample of all conditions throughout Egypt. The hospital is staffed by 188 psychiatrists, 21 psychologists, 67 social workers, 16 general practitioners, 4 internists, and 656 nurses.

Subjects

The present study was performed on a convenience sample of 50 psychiatric nurses, who were representative of the nurses working in the study setting during the time of the study. At a 95% level of confidence and 80% power, and accounting for a dropout rate of about 15%, the Open Epi software package estimated that the required sample size would be 50 subjects (**Fleiss et al. 2003**).This sample was determined to be large enough to demonstrate a post-intervention improvement in nurses' knowledge, which reached a high of 80%, from a pre-test percentage of 50%. This improvement is equivalent to a small effect size, with relativerisk (RR)=1.6 (**Cohen, 1988**).

Data collection tool

A structured, self-administered questionnaire was used to assess nurses' knowledge levels regarding the legal and ethical responsibilities of psychiatric nurses before and after the intervention. The questionnaire was developed by the researchers based on a review of pertinent literature, especially The Egyptian New Mental Health Law71/2009 (**Eldakhs, 2013**), The Egyptian Nursing Profession code of ethics (**Egyptian Nursing Syndicate, 1976**), and the American Nurses Association code of ethics(**ANA, 2016).**

The tool included a section for collecting nurses' personal data, such as age, gender, nursing qualifications, years of experience, and the attendance of in-service training sessions forpsychiatric nursing regarding legal or ethical issues associated with psychiatric nursing.

The knowledge section of the questionnaire consisted of 67 questions [8 multiple-choice questions (MCQs), 39 True/False questions, 12 open-ended questions, and 8 complete-type questions],which covered the areas of definitions, violence, and restraining/seclusion (2 questions each); informed consent, patient rights, and invasion of patient privacy (4 questions each); malpractice (7 questions); neglect (11 questions); unprofessional practice (5 questions); the nursing code of ethics (9 questions); and legal issues (17 questions).

Validity of the tool: A panel of three experts in psychiatric nursing and medicine validated the tool. They assessed the tool for relevance, comprehensiveness, and clarity. The tool was finalized based on their comments and suggestions.

Reliability of the tool: Reliability was measured using the "Guttmansplit-half" approach, which returned a very high-reliability coefficient (Spilt-half coefficient = 0.909).

Scoring:A question with a correct answer was scored as one, and an incorrect answer was scored as zero. These scores were converted into percentage scores. The knowledge level was considered satisfactory if the percent score was 60% or higher and was considered unsatisfactory if the score was less than 60%.

Pilot study

A pilot study was performed usinga 10% sample size (5 nurses) before starting the actual data collection to ascertain the clarity and applicability of the study tools and the feasibility of the research process. The pilot study was also used to estimate the time required to respond to the questionnaire. The results obtained from the pilot study were excluded from the study results.

Fieldwork

This study was performed in three stages: the preparation period, the implementation period, and the evaluation period. During the preparation period, an official letter was obtained from the scientific research ethics committee for the Faculty of Nursing, Zagazig University, and a letter was obtained from the medical director of the hospital. These letters of support indicated agreement with the purpose of the study and granted permission to collect data and to implement the program. The preparation period also included developing a handbook,entitled "Legal and ethical issues in psychiatric nursing practice," in simple Arabic language to suit the level of attending nurses. The schedule of the educational program and the goals for the program were developed, teaching methods were selected, and media were generated during the preparation period. Then,the pre-test was administered to the participating nurses, which served as a baseline for comparison against the post-test. The researchers met with the nurses to explain the aim of the study and its procedures and obtained informed consent to participate.Those who agreed were provided with a questionnaire form and instructions for how to complete it. The researchers were present during the entire process to clarify any ambiguities and to collect the completed forms. Form completion took approximately 20-25 minutes.

Theimplementation phase lasted eight weeks.The participant nurses were divided into small groups,containing2 to 3 members per group. Each group attended 6 hours of instruction. During the introduction session of the educational intervention, the researchers explained the purpose of the study to the participants and described the program content. Each participant received a copy of the prepared booklet. Different teaching media were

used, including PowerPoint presentations, flipcharts, and booklets. The intervention followed the adult learning principles with an emphasis on group discussions and active participation. The program was implemented inside the units at the nursing stations during the morning and afternoon shifts. The full program duration for each group was 6 hours. Data collection lasted approximately two months, from the first of June2017 to the end of July 2017.

Program description

Title: Legal and ethical issues for psychiatric nurses.

Aim: The goal of this educational intervention was to equip psychiatric nurses with basic knowledge regarding legal and ethical aspects associated with the provision of nursing care to psychiatric patients.

Objectives:

- To improve psychiatric nurses' knowledge regarding basic concepts related to psychiatric settings.

- To identify the principles of nursing ethics.

- To identify the legal issues encountered during nursing practice.

- To improve psychiatric nurses' knowledge of the Egyptian New Mental Health Law 71/2009.

Outlines of the program:

1- **Introduction and definition of basic concepts** related to psychiatric settings (such as the definition of health, ethics, bioethics, code of ethics, guidelines, legal responsibilities, ethical responsibilities, ethical dilemmas, informed consent, restraints, seclusion, false imprisonment, gravely disabled, defamation of character, privacy, invasion of privacy, assault, sentinel event, and client confidentiality).

2- **Principles of nursing ethics (**Autonomy, Beneficence, Non-maleficence, Justice, Fidelity, and Veracity), values and beliefs, nurses' responsibilities toward the nursing profession, characteristics of ethical nursing care, factors leading to unsafe nursing care, ethical characteristics of the patient-nurse relationship, and ethical decision-making.

3- **Legal issues in nursing practice:** Legal issues and concepts, negligence, malpractice, common legal issues facing nurses, such as abandonment, diversion of narcotics, falsification of medical records, and unprofessional practices.

4- **Egyptian New Mental Health Law 71/2009**.

During the evaluation phase, the effects of the educational intervention were assessed through an immediate post-test after the completion of the program, using the same questionnaire that was used for the pre-test.

Administrative and ethical considerations

Before embarking on this study, a permission letter was granted by the scientific research ethics committee for theFaculty of Nursing, Zagazig University and the medical director of the hospital. Nurses were informed that their participation in the study was voluntary, with no consequences if they choose not to participate and the ability to withdraw at any time. The confidentiality and anonymity of any obtained information were guaranteed.

Statistical analysis

Data entry and statistical analysis were performed using the SPSS 20.0 statistical software package. Data for categorical variables are summarized as percentages and frequencies,whereas continuous variables are presented as the means and standard deviations or as the median. Categorical variables were compared using the chi-square test. Spearman's rank correlation coefficient was used to assessinterrelationships among quantitative variables. To identify independent predictors of the knowledge score, multiple linear regression analysis was used after testing for normality, and an analysis of variance for the full regression model was performed. Significance was established at p-value <0.05.

Results

Table 1 demonstrated that the ages of the nurses in the study sample ranged between 21 and 54 years, with amedian of 34.0 years. Slightly more females (56%) than males participated. The majority were bachelor's degree nurses (88%), and their years of experience ranged from <1.0 to 30.0 years, with a median of 17.0 years of experience. One-half of the participants reported previous training in legal issues of psychiatric nursing, whereas 40.0% had previous training in psychiatric nursing ethics.

Table 2 demonstrated that nurses' knowledge was generally deficient before the intervention. The areas with the lowest percentage of satisfactory knowledge were those regarding patients' rights committee members (12%), psychiatric patients' rights, conditions for restraining/seclusion(18%),

the definitions of health (26%), and psychic / mental disorder (38.0%). During the post-intervention phase, significant improvements in nurses' knowledge were observed in almost all areas tested (p<0.001). The percentages of correct answers ranged between 74% for the patients' right of orientation during admission and 96% for the conditions of restraining/seclusion and the responsibility regarding informed consent. Only the areas of bullying and the definition of restraining/seclusion showed no significant improvements.

As illustrated in **Table 3**, nurses' pre-intervention knowledge was variable in different areas. For the invasion of patient privacy, the percentages of satisfactory knowledge ranged between 32% for informing the guardian of diagnosis and 78% for searching for information. For malpractice, the knowledge scores ranged between 4% for the elementsof malpractice and 78% for the lack of required nurse qualifications and incorrect documentation.The satisfactory knowledge rates regarding unintentional errors and harm to patientswere also low (22% and 18%, respectively). In the area of neglect,scores ranged between 22% for lack of communication and 88% for the failure to raisebed bars. Finally, in the unprofessional practice area, the percentages of satisfactoryknowledge ranged from 12% forinadequate nursing care to 70% for the precocious termination of care. Significant improvements in nurses' knowledge were revealed during

the post-intervention phase,which was noted in all areas, except for the lack of required nurse qualifications (p=0.62), patient falls (p=0.11), the failure to raise bed bars (p=0.27), lack of communication (p=0.08), and precocious termination of care (p=0.053).

Table 4 observed very low percentages of correct knowledge among nurses regarding the nursing code of ethics and legal issues before the intervention, which was most notable for the nursing ethics code concept (8%) and guidelines (6%), as well as the legal issues related to forced admission (2%), eligibility for trial (6%), and forced treatment (8%). After the implementation of the intervention, significant improvements were observed for almost all areas, with the only exception concerning obligatory admission, which improved from 66% to 80% but was not considered a significant difference (p=0.11).

Table 5 revealed total, nurses' satisfactory knowledge before the intervention ranged between 4% for legal aspects to 62% for violence and neglect. All areas showed significant improvements after the implementation of the intervention, with satisfactoryknowledge ranging between 76% for the definitions and 98% for neglect and unprofessional practice. Overall, only one (2%) nurse had satisfactory total knowledge before the intervention, and this rose to 90% after the intervention (p<0.001).

Table 6 indicated that nurses' knowledge before the intervention was significantly and positively correlated with their qualifications. After the intervention, knowledge was found to correlate significantly and negatively with age and years of experience.

In the multivariate analysis (Table 7), the main, significant, independent, positive predictor of nurses' knowledge scores was the intervention. In contrast,years of experience was a negative predictor. The intervention was able to explain 79% of the variation in nurses' knowledge scores.

Table 1: Frequency and percentage distribution of nurses' socio-demographic characteristics (n = 50)

Item	Frequency	Percent
Age:		
< 30	19	38.0
30+	31	62.0
Range	21.0-54.0	
Mean ± SD	34.7 ± 8.4	
Median	34.0	
Gender:		
Male	22	44.0
Female	28	56.0
Nursing qualification:		
Bachelor	44	88.0
Diploma	6	12.0
Experience years:		
< 10	14	28.0
10 +	36	72.0
Range	< 1.0–30.0	
Mean ± SD	14.8 ± 9.0	
Median	17.0	
Had training in legal issues regarding psychiatric nursing:		
No	25	50.0
Yes	25	50.0
Had training in psychiatric nursing ethics:		
No	30	60.0
Yes	20	40.0

Table 2: Comparison of nurses' satisfactory knowledge of definitions, violence, restraining, informed consent, and patient rights before and after the intervention

Satisfactory knowledge of:	Time				χ^2 test	p-value
	Pre (n = 50)		Post (n = 50)			
	No.	%	No.	%		
Definitions:						
Health	13	26.0	44	88.0	39.21	< 0.001*
Psychiatric / mental disorder	19	38.0	44	88.0	26.81	< 0.001*
Violence:						
Bullying	44	88.0	43	86.0	0.09	0.77
Assault	34	68.0	47	94.0	10.98	0.001*
Restraining/seclusion:						
Definition	39	78.0	42	84.0	0.58	0.44
Conditions	9	18.0	48	96.0	62.06	0.001*
Informed consent:						
In emergency	19	38.0	41	82.0	20.17	< 0.001*
Conditions	28	56.0	45	90.0	14.66	< 0.001*
ECT	37	74.0	39	78.0	0.22	0.64
Responsibility	34	68.0	48	96.0	13.28	< 0.001*
Patient rights:						
Orientation on admission	25	50.0	37	74.0	6.11	0.01*
Forbidding smoking	28	56.0	43	86.0	10.93	0.001*
Psychiatric patient rights	9	18.0	46	92.0	55.31	0.001*
Patient rights committee members	6	12.0	41	82.0	49.18	0.001*

Table 3: Comparison of nurses' knowledge of the invasion of patient privacy, malpractice, neglect, and non-professional practice before and after the intervention

Satisfactory knowledge of:	Time				χ^2 test	p-value
	Pre (n = 50)		Post (n = 50)			
	No.	%	No.	%		
Invasion of patient privacy:						
Searching information	39	78.0	49	98.0	9.47	0.002*
Uncovering patient	31	62.0	42	84.0	6.14	0.01*
Speaking about patient in public	25	50.0	46	92.0	21.42	< 0.001*
Informing guardian of diagnosis	16	32.0	40	80.0	23.38	< 0.001*
Malpractice:						
Definition	37	74.0	48	96.0	9.49	0.002*
Unintentional error	11	22.0	38	76.0	29.17	< 0.001*
Harm to patient properties	9	18.0	26	52.0	12.70	< 0.001*
Lack of required nurse qualification	39	78.0	41	82.0	0.25	0.62
Error in administering ECT	30	60.0	41	82.0	5.88	0.02*
Incorrect documentation	39	78.0	50	100.0	12.36	< 0.001*
Elements	2	4.0	36	72.0	49.07	< 0.001*
Neglect:						
Patient fall	24	48.0	32	64.0	2.60	0.11
Definition	37	74.0	50	100.0	14.94	< 0.001*
Failure to raise bed bars	44	88.0	48	96.0	Fisher	0.27
Medication error	39	78.0	50	100.0	12.36	< 0.001*
Use of dilapidated tools	31	62.0	48	96.0	17.42	< 0.001*
Leaving patient unattended	30	60.0	46	92.0	14.04	< 0.001*
Loss of patient belongings	31	62.0	47	94.0	14.92	< 0.001*
Patient escape	36	72.0	49	98.0	13.25	< 0.001*
Failure of notification of patient state	34	68.0	48	96.0	13.28	< 0.001*
Use of expired medications	36	72.0	47	94.0	8.58	0.003*
Lack of communication	11	22.0	19	38.0	3.05	0.08
Unprofessional practice:						
Peer non-professional practice	21	42.0	37	74.0	10.51	0.001*
Conditions	21	42.0	42	84.0	18.92	0.001*
Nurse-patient relationship	20	40.0	45	90.0	27.47	0.001*
Precocious termination of care	35	70.0	43	86.0	3.73	0.053
Inadequate nursing care	6	12.0	46	92.0	64.10	0.001*

Table 4: Comparison of nurses' knowledge of the nursing code of ethics and legal issues before and after the intervention

Satisfactory knowledge of:	Pre (n = 50)		Post (n = 50)		χ^2 test	p-value
	No.	%	No.	%		
Nursing ethics code:						
Components	25	50.0	46	92.0	21.42	< 0.001*
Disclosure of patient information	6	12.0	26	52.0	18.38	< 0.001*
Author of code	32	64.0	45	90.0	9.54	0.002*
Breaking code	39	78.0	49	98.0	9.47	0.002*
Ethical principles	15	30.0	49	98.0	50.17	< 0.001*
Concept	4	8.0	44	88.0	64.10	< 0.001*
Values	17	34.0	47	94.0	39.06	< 0.001*
Responsibilities towards profession	14	28.0	46	92.0	42.67	< 0.001*
Guidelines	3	6.0	46	92.0	73.99	< 0.001*
Legal issues:						
Nurse representative in regional counsel	12	24.0	38	76.0	27.04	< 0.001*
Permission for ECT	26	52.0	44	88.0	15.43	< 0.001*
Age of consent	23	46.0	44	88.0	19.95	< 0.001*
Informing regional counsel	41	82.0	49	98.0	7.11	0.008
Escape of patient	21	42.0	35	70.0	7.95	0.0048
Patient refusal of treatment	38	76.0	49	98.0	10.70	0.001*
Obligatory admission	33	66.0	40	80.0	2.49	0.11
Eligibility for trial	3	6.0	42	84.0	61.45	< 0.001*
Forced admission	1	2.0	42	84.0	68.58	< 0.001*
Death of patient in forced admission	7	14.0	47	94.0	64.41	< 0.001*
Malpractice in psychiatric nursing	23	46.0	47	94.0	27.43	< 0.001*
Regional counsel responsibilities	10	20.0	42	84.0	41.03	< 0.001*
Max. forced admission	11	22.0	33	66.0	19.64	< 0.001*
Complaint against forced admission	7	14.0	39	78.0	41.22	< 0.001*
Revision of forced admission	8	16.0	44	88.0	51.92	< 0.001*
Max. duration of forced admission	9	18.0	37	74.0	31.56	< 0.001*
Forced treatment	4	8.0	36	72.0	42.67	< 0.001*

Table 5: Comparison of nurses' total knowledge before and after the intervention

Satisfactory Knowledge (60%+)	Time				χ^2 test	p-value
	Pre (n = 50)		Post (n = 50)			
	No.	%	No.	%		
Definitions	8	16.0	38	76.0	36.23	< 0.001*
Violence	31	62.0	41	82.0	4.96	0.03*
Restrain/seclusion	7	14.0	46	92.0	61.06	< 0.001*
Informed consent	23	46.0	44	88.0	19.95	< 0.001*
Patient rights	7	14.0	43	86.0	51.84	< 0.001*
Privacy invasion	25	50.0	46	92.0	21.42	< 0.001*
Malpractice	9	18.0	47	94.0	58.60	< 0.001*
Neglect	31	62.0	49	98.0	20.25	< 0.001*
Unprofessional practice	10	20.0	49	98.0	62.88	< 0.001*
Code of ethics	3	6.0	46	92.0	73.99	< 0.001*
Legal aspects	2	4.0	47	94.0	81.03	< 0.001*
Total knowledge:						
Satisfactory	1	2.0	45	90.0	80%	
Unsatisfactory	49	98.0	5	10.0	77.94	< 0.001*

Table 6: Correlation between nurses' knowledge and their personal characteristics before and after the intervention

	Spearman's rank correlation coefficient					
	Pre (n = 50)			Post (n = 50)		
	Age	Qualification	Experience	Age	Qualification	Experience
Total knowledge:	−0.178	0.289*	−0.192	−0.361**	0.057	−0.326*

(*) Statistically significant at p < 0.05   (**) Statistically significant at p < 0.01

Table 7: Best fitting multiple linear regression model for the knowledge score

	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Constant	−2.28	3.59		−0.636	0.526	−9.40	4.84
Intervention	38.22	2.01	0.88	19.033	< 0.001	34.23	42.20
Experience years	−0.33	0.11	−0.14	−2.926	0.004	−0.55	−0.11

r-square = 0.79   Model ANOVA: F = 185.42, p < 0.001
Variables entered and excluded: age, gender, qualification, training courses

Discussion

Psychiatric nurses should be well knowledgeable in legal and ethical aspects of care and the treatment of mentally ill. Because it focuses concern on the rights and the quality of care, they provide. Besides, psychiatric nurses play a very important role from the time of patient admission to discharge such as, meeting all types of patient biological and emotional needs, maintaining and protecting patient rights, maintaining confidentiality, and taking informed consent, all come under legal responsibilities of a psychiatric nurse (Kumar, Mehta, & Kalra 2011). Accordingly, nurses should strengthen their legal and ethical knowledge because these issues guide, protect, and enhance professional nursing practice (**Aly et al., 2020).** The aim of this study was to assess the effects of an educational interventionon psychiatric nurses' knowledge regarding the legal and ethical issues associated with the treatment of psychiatric patients.

The study results revealed significant improvements in nurses' knowledge of the legal and ethical issues that are encountered by psychiatric health nurses working in psychiatric hospitals after the implementation of the educational intervention; thus, the study hypothesis was supported. Moreover, the observed improvements were better than expected during the calculation of the sample size, with 90% of the nurses in the study achieving a satisfactory knowledge level during the post-test, whereas the expectation was only 80% in the sample size calculation.

In the present study, the pre-intervention knowledge of psychiatric nurses regarding the conditions for restraining/seclusion of psychiatric patients was mostly unsatisfactory,despite

the subject representing a major area of psychiatric nursing practice that should be well known and understood by nurses. In agreement with this finding, a study in Saudi Arabia revealed that psychiatric nurses lacked proper knowledge regarding the use of seclusion and restraints (**Hasan and Abulattifah, 2018**). Additionally, a recent literature review revealed that nurses varied in their awareness and attitudes towards seclusion and restraints, and their perceptions differed from those of the patients (**Al-Maraira and Hayajneh, 2019**).

The current study results demonstrated that nurses' knowledge of psychiatric patients' rights was mostly unsatisfactory before the implementation of the intervention. The majority of participating nurses had incorrect knowledge regarding psychiatric patients' rights and patients' rights committee members,which may be due to the rights of psychiatric patients differing from those of other patients. Thus, psychiatric nurses must be knowledgeable not only about general patient rights but also, and more importantly, about psychiatric patient rights. A study by **Pundir and Dixit (2020)** was conducted in India to assess nurses' knowledge regarding the rights of mentally ill patients at a State Mental Health Institute, Selaqui, Dehradun. The results showed that the maximum number of caregivers had poor knowledge regarding the rights of mentally ill patients. Another study, by **Thapa and Samson (2017),**assessed the knowledge and attitudes of staff nurses regarding the human rights of mentally ill patients in India, and the results showed thatthe overall mean knowledge score was 50% among staff nurses.

The current study results also demonstrated that a great majority of the participant nurses had no satisfactory knowledge of the nursing code of ethics

before the implementation of the educational intervention. Their knowledge of the concept of the nursing ethics code and related guidelines was deficient. They also lacked correct information regarding the disclosure of patient information. These results are of major concern because considerable knowledge deficits may expose psychiatric patients under the nurses' care to innumerable hazards that jeopardizethe patients' rights.Moreover, the nurses may experience moral distressif their lack of knowledge regarding ethical issues exposes them to challenging situations, as shown by **Rodger et al. (2018)** in a study in the United Kingdom.Accordingly,the authors recommended that proactive steps should be taken to improve the ethical knowledge of healthcare assistants, both through the current Care Certificate and through regular staff training, to relieve their moral distress. Additionally, a study in Japan revealed that most psychiatric nurses failed to take appropriate actions when faced with ethical challenges **(Ando and Kawano, 2016)**.

This result agrees withthe results reported by **Aly et al. (2020),** who found that nurses' knowledge of both ethical and legal aspects, nurses' ethical practices, and nurses' ethical competencies were insufficient.Our study findings also agree with the findings of a study conducted by **Sabra and Hossny (2020),**who assessed the nursing staff's knowledge regarding legal and ethical responsibilities and the application of this knowledge in psychiatric departments at Assiut University Hospital, Egypt. These findings showed that the majority of studied nurses have only a moderate level of knowledge regarding legal and ethical issues.

The nurses in the present study were very deficient in knowledge regarding the legal issues associated with

psychiatric nursing during the pre-test,which was particularly evident in terms of their knowledge associated with the forced admission, eligibility for trial, and forced treatment of psychiatric patients. This finding is also alarming because it may not only harm the patients but may also result in the nurse facing legal problems associated with malpractice. In line with this, **Montanari et al. (2017),**in a study performed in Italy, discussed the complexities of legal issues encountered during the practice of psychiatric nursing and the challenges and liability problems that psychiatric nurses are exposed to (what…). A study in Denmark also highlighted the importance of on-the-job education to teach psychiatric nurses and other healthcare professionals about the legal aspects of care for psychiatric patients **(Birkeland and Gildberg, 2016)**. These results agreewith previous research performed in India by **Joe and Joykutty (2020),** who found that staff nurses had deficient knowledge regarding the legal responsibilities associated with patient care in the pre-test.

The result of current study demonstrated positive correlation between the total knowledge score before the intervention and the nurses' qualification level. In congruence with this finding, the studies of **Sabra and Hossny (2020)** in Egypt and **Subedi et al . (2018)** in India reported a strong significant relationship between total legal and ethical knowledge and the education level of nurses. Similarly **Kaur et al. (2014)** reported on their study a significant association between nurse's level of knowledge and their professional qualification

After the implementation of educational intervention in the present study, significant improvements were observed for all knowledge areas, and the

majority of nurses displayed satisfactory total knowledge in the post-test compared with only one nurse with satisfactory total knowledge during the pre-test. This improvement was determined to be due to the effects of the educational intervention. The positive effects of the program

included a positive response toan unmet need by filling a gap in the participants' knowledge and the application of adult learning principles during its implementation. A study by **Sujitha (2020)** was conducted to assess the effects of a self-instructional module on knowledge and attitude on legal aspects of psychiatric care among nurses in Thrissur, and the findings indicated thatthe self-instructional module was very effective for increasing the knowledge and attitudes of staff nurses. The effectiveness of the information booklet on increasing the knowledge of psychiatric nurses with regards to their legal responsibilities during patient care was reported by **Joe and Joykutty(2020)**. Other studies performed in the United States demonstrated significant improvements in psychiatric nurses' knowledge following an educational intervention **(Newman et al., 2018; Passley-Clarke, 2019)**. In further support of the present study findings, an integrated literature review provided evidence of the beneficial effects of educational endeavors on psychiatric nurses' knowledge **(Hennessy and Cocoman, 2018)**.

Other evidence has demonstrated that nurses, doctors, and other healthcare professionals who undergo dedicated ethics training may be better able to identify, manage, and cope with ethical dilemmas as they arise in their professional practice**(Grady et al., 2008).** Similarly,**Magelssen et al. (2018**) reported that in a Norwegian survey,approximately half of the

respondents found the ethics project to have been highly significant to their daily professional practice. Outcomes included the better handling of ethical challenges, better employee cooperation, better service quality, and better relationships with patients and next of kin.

The current study results also revealed negative correlations between nurses' knowledge scores on the post-test and their ages and years of experience, which indicates that younger nurses and with less experience obtained more benefits from the educational intervention. The younger and less experienced nurses were more likely to be new graduates and, thus, might have fresher knowledge and a better ability to learn. However, only the effect of years of experience was confirmed in the multivariate analysis.

Overall, The educational intervention in this study was able to explain 79% of the variation in nurses' knowledge scores. Indicating the effectiveness of the educational intervention in enhancing psychatric nurses knowledge regarding the legal and ethical issues for psychiatric patients. This result was supported by Kumar, **Mehta and Kalra (2011)**, who recommended that there is a need for continued and intensified efforts to ensure that staff nurses, who are involved in providing quality health care services, must acquire knowledge necessary about the legal and ethical issues and the effects of misuse of law and negligence of nursing practice. In-service education programs, on job training sessions can be conducted at the hospital and community level to keep the nurses updated with the current knowledge in this direction.

The results also supported by **Aydin and Ersoy (2017)** who highlight the importance of increased ethical training in nursing education. Explaining

that, there is a pressing need to develop nursing education programs that is specifically focused on ethical problems in the fields of mental health and psychiatry.

Funding

Conclusion

In light of the current study findings, educational interventions appear to be effective for improving psychiatric nurses' knowledge of the legal and ethical issues related to their practice. Although only one nurse had a satisfactory total knowledge score before the intervention, this proportion rose to 90% after the intervention.

Recommendations

Based on the study findings,the following recommendations are suggested: this educational interventioncould be used in similar settings, with further amelioration through the addition of a practical application section.The long-term effectiveness of the program must also be tested through a follow-up study, and the impacts of improved knowledge on the quality of patient care also require further research. This educational interventionis recommended to be included as a basic component of the orientation program for new staff and as part of in-service education programs for nursing staff working in similar settings. A focus on the concepts of ethical and legal issues during university education may also assist in the establishment of a well-prepared nurse, which can reduce uncertainty in theprovision of ethical care for mentally ill patients.

Conflict of interest

All authors declare that there is are no conflicts of interest

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