

KNOWLEDGE OF STAFF NURSES REGARDING CARE OF PATIENTS RECEIVING ELECTRO-CONVULSIVE THERAPY (ECT)

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ABSTRACT

BACK GROUND OF THE STUDY: Electro convulsive therapy (ECT) is a highly technical procedure requiring a team. Nurses have been involved in the administration of ECT since its earliest use. This study examined the knowledge of staff nurses regarding care of patients receiving ECT by using structured knowledge questionnaire. **METHOD:** A descriptive survey research was conducted in Rama Medical College Hospital and Research Centre, Mandhana Kanpur. 60 staff nurses were selected by using systematic random sampling technique. Structured knowledge questionnaire regarding care of patients receiving ECT was used to assess the knowledge. The questionnaire focused on general information, care of patients before ECT, during ECT and after ECT. **RESULTS:** Collected data was analyzed by using descriptive and inferential statistics. The results of the study revealed that most of the staff nurses (95%) had average knowledge, The overall mean knowledge and standard deviation scores were 26.95 ± 3.82 . Around 60% staff nurses had average knowledge in the aspect of introduction and general information regarding ECT compared to other aspects, around 55% staff nurses had average knowledge regarding care of patients before ECT, 53% staff nurses had average knowledge regarding care of patients during ECT and 57% staff nurses had average knowledge regarding care of patients after ECT, **CONCLUSION:** Most of the staff nurses had average knowledge regarding care of patients receiving ECT. Almost all nurses had average level of knowledge in all the areas, namely introduction and general information about ECT, care of patients before ECT, during ECT and after ECT. A higher level knowledge appears to be associated with the total length of working experience of staff nurses both in psychiatric department, ECT room and other areas. Staff nurses with more experience, had more knowledge. Greater knowledge scores were obtained from those staff nurses who had more experience. The conclusions suggest that knowledge of ECT required improvement and this has implications for nurse education.

KEY WORDS; Electro convulsive therapy (ECT), Knowledge, Staff Nurses.

INTRODUCTION

Electroconvulsive therapy (ECT) involves the induction of a grand mal seizure through the passage of an electrical current to the patient brain with the aim of

improving the patients' mental status under anesthesia and muscle relaxant. There is no solid based clarification for the mechanism of action and how the ECT works but the most credibility goes to the biochemical

theory. ECT was first introduced into psychiatry more than seven decades back in 1938 in Rome by an Italian neuropathologist and psychiatrist Ugo Cerletti. ECT is widely prescribed worldwide and first indicated in the emergency treatment of severe depression with suicide or psychosis, medication – resistant schizophrenia. Effectiveness of ECT in the treatment of depression was established in 1941. The introduction of psychopharmacology in the 1970s and 1980 reduced the use of ECT in the treatment of mental illness.¹

The specific objectives of this study understood the nursing role in ECT through a review of the published literature. There are four components of nursing care in ECT. A record of ECT administration should be maintained for quality assurance. They are assessing the pre treatment plan and the patient behaviour memory and functional ability, providing emotional and educational supports to the patient and their family, preparing and monitoring the patient during the actual procedure and recovering patient observing and interpreting patient response to ECT with recommendation for changes in the treatment plan as appropriate.²

The nurses should ensure that the patient, equipment and personnel are prepared and organized for the session. Emergency rescues equipment and drugs should be checked weekly or as per local policy. The ECT machine output and electrodes should be checked.⁴ The ECT nurses should ensure that the ECT machine functioning and maintenance is checked and recorded at least every weekly or according to machine guidance.³ The psychiatric nurse

is usually one of the first people a patient will see when he is admitted to a mental hospital. He or she will be monitoring most of the patient's plan of care and implementing doctors' orders. She will administer medications to the patient as ordered and as needed. As she takes care of the patient, she should be careful to chart every detail of her interactions with and observations of patients, as well as vital medical information, so that the doctor and other staff can make objective decisions concerning that patient's care having been educated as to his progress, or lack thereof. She will most likely be reporting, in person, on the patient's care to both doctors and other nursing staff, as needed, for the best care possible.⁴ Therefore this study aims at presenting relevant data of the existing knowledge of staff nurses regarding care of patients receiving ECT.⁵

OBJECTIVES OF THE STUDY

1. Assess the knowledge of staff nurses regarding care of patients receiving ECT.
2. Find out the association between the knowledge of staff nurses regarding care of patients receiving ECT with their selected demographic variables.

HYPOTHESIS

H₁: There is a significant association between the knowledge of staff nurses regarding care of patients receiving ECT with their selected demographic variables.

METHODOLOGY

A descriptive survey research was conducted to assess the knowledge of staff nurses regarding care of patients receiving

ECT in Rama Medical College Hospital and Research Centre, Mandhana Kanpur, Uttar Pradesh, India. Sixty staff nurses who fulfilled the sampling criteria were selected as sample by using systematic random sampling technique. The research tool used to collect the data consisted of closed ended knowledge questionnaire regarding care of patients receiving ECT. The questionnaire focused on general information, care of patients before ECT, during ECT and after ECT.

Data Collection Procedure: A formal ethical clearance certificate was obtained from the research ethical committee. Then the formal permission was taken from the Rama Medical College Hospital and Research centre, Mandhana, Kanpur, Uttar Pradesh before conducting the study. An informed consent was obtained from the participants after explaining the purpose of study. The investigators gathered all the participants and data on knowledge were collected within one hour. Data were coded and analyzed by using descriptive and inferential statistics.

RESULTS

Description of Demographic Variables of Sample.

Majority of respondents (50%) were of age equal to or less than 25 years age group and it was observed that as age increases sample number decreases. Majority of staff nurses (51.66%) were female. Most of the staff nurses (96.66%) were Hindu had completed G.N.M course. Majority of staff nurses (51.66%) had total clinical experience between 1-5 years. Most of

them (71.66%) had no working experience in psychiatric department whereas only 28% of staff nurses had working experience in psychiatric department. Only 26.66% of staff nurses had working experience in ECT room.

Table No. 1 : Distribution of Staff Nurses according to their Level of Knowledge.

Sr. No.	Levels of knowledge	Score Range	Frequency(f)	Percentage %
1	Average	17-32	57	95
2	Good	33-48	3	5

Level of Knowledge scores of staff nurses regarding care of patients receiving ECT revealed that the most of staff nurses 57(95%) had average knowledge whereas 3(5%) had good knowledge.

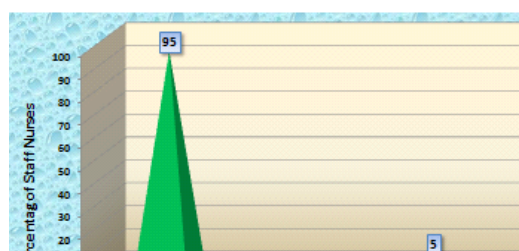


Fig. 1 - Levels of Knowledge scores of Staff Nurses
 Mean, mean%, median, mode, S.D and range of knowledge score of staff nurses regarding care of patients receiving ECT revealed that the mean was 26.95, mean% was 56.14, median was 27, mode was 29 and range was 16 -35.

Table No. 1 : Distribution of Staff Nurses according to their Level of Knowledge.

Sr. No.	Areas	Max Scores	Staff Nurse's Knowledge Scores					
			Mean	Mean %	Median	Mode	S.D	Range
1	Introduction & General Information	13	7.85	60.38	8	7	2.03	3-12
2	Care of patients before ECT	8	4.41	55.12	4	4	1.39	0 - 7
3	Care of patients during ECT	18	9.55	53	10	10	2.02	4-14
4	Care of patients after ECT	9	5.13	57	5	5	1.47	1 - 8

Area wise mean, mean%, median, mode, and range of knowledge scores of staff nurses regarding care of patients receiving ECT reveals that the staff nurses had more knowledge (60.38%) in the aspect of introduction and general information regarding ECT, care of patients after ECT (57%), care of patients before ECT (55.12%) and less knowledge in care of patients during ECT (53%).

Percentage wise distribution of staff nurses with knowledge on introduction and general information reveals that 70% staff nurses knew that the most common complication of ECT is fracture. 68.33% staff nurses knew that ECT is given as first line treatment for the patient who is suffering from endogenous depression

with severe suicidal risk. Around 60% staff nurses had average knowledge in other aspects of introduction and general information regarding ECT.

Percentage wise distribution of staff nurses with knowledge on care of patient before ECT reveals that 76.66% staff nurses knew that the electric current passing on unwanted areas can be prevented by removing all metallic ornaments and sharp objects, 70% staff nurses knew that incontinence and soiling of the bed can be prevented by encouraging the patient to empty bladder and bowel. Around 55% staff nurses had average knowledge in other aspects of care of patients before ECT.

Percentage wise distribution of staff nurses with knowledge on care of patients during ECT reveals that 68.33% staff nurses knew that the prevention of

jaw dislocation and maintenance of patient airway can be achieved by keeping patient's head hyper extended. Around 50% staff nurses had average knowledge in other aspects of care of patients during ECT.

Percentage wise distribution of staff nurses

with knowledge on care of patients after ECT reveals that 66.66% staff nurses knew that the post ECT confusion can be prevented by re-orienting the patient. Around 60% staff Nurses had average knowledge in other aspects of care of patients after ECT.

Table No. 4 : Description of knowledge with respect to the selected demographic variables of staff nurses

Demographic Variable	Group	No. of Staff Nurses	Mean	S.D.
Age (Years)	≤25	30	26.16	4.06
	26 - 30	23	27.52	3.62
	31 - 35	5	27.4	2.88
	≥36	2	31	1.41
Gender	Male	29	27.55	3.96
	Female	31	26.38	3.67
Religion	Hindu	57	26.94	3.89
	Muslim	2	28	2.82
	Christian	1	25	
Professional Qualification	G.N.M	51	26.24	3.53
	B.Sc. Nursing	7	24.28	5.02
	P.B.B.Sc. Nursing	2	31.5	2.12
Total Clinical Experience	< 1 years	23	26.47	3.83
	1-5 years	31	27.35	3.40
	6-10 years	4	24.5	6.45
	11 years above	2	31	1.41
Working experience in psychiatric department	Yes	17	25	4.15
	No	4	27.53	3.64
	< 1 year	11	24.36	4.1
	1-3 years	5	27.4	3.5
	4-6 years	1	30	
Working	Yes	16	25.5	3.38

Association between knowledge scores and selected demographic variables

There was a significant association between the knowledge scores and professional qualification, total clinical experience and working experience in psychiatric department at 0.05 level. There was a significant association between the knowledge scores and working experience in ECT room at 0.01 level. Other variables

had no significant association with the knowledge scores.

DISCUSSION

Majority of staff nurses (50%) were in age less than 25 years which was contrast to the findings of Shakya DR and Lama S (2010) who found that average staff nurse age 29 years which is more than present study. However, Parihar A, Vyas H and Sharma

NK (2013) who found that 17(34%) nursing personnel were in the age group between 31- 40 years which was less than present study. John P reported that just over half of mental health nurses (N=167) were between 40 -50 years of age and remaining equally distributed between the age of 20-30 years and over 50 years of age⁷. Majority of staff nurses (51.66%) were female. However, Parihar A, Vyas H and Sharma NK (2013)⁴ found that 13(26%) nursing personnel were female which is less than the present study. John P (1998) also found that the most of mental health nurses 56.28% were female. Shakya DR and Lama S (2010) also reported that 52 (96.29%) nursing staff were female, which was more than the present study. Most of the nurses (85%) had completed G.N.M. However, Parihar A, Vyas H and Sharma NK (2013) found that 74% nursing personnel had completed GNM, which was less than the present study. Shakya DR and Lama (2010) reported that 27% nursing staff had completed GNM, which was less than the present study. Majority of staff nurses (51.66%) had total clinical experience between 1-5 years. However, Parihar A, Vyas H and Sharma NK (2013) found that 35(70%) nursing personnel had total clinical experience less than 15 years, 15(30%) had clinical experience more than 15 year. Shakya DR and Lama S (2010) reported that the majority of nursing staff had working experience more than 1 year.

Majority of staff nurses (71.66%) had no working experience in psychiatric department. However, Majority of staff nurses (64.70%) had less than 1 year

working experience in psychiatric department. However, Parihar A, Vyas H and Sharma NK (2013) found that 18 (36%) nursing personnel had experience in psychiatric department for more than 5 years, which was more than the present study. Shakya DR and Lama (2010) reported that majority of nursing staff had work experience in psychiatric department more than 1 year. Majority of staff nurses (73.33%) had no working experience in ECT room. John P (1998) who found that 28% mental health nurses had not worked with patient receiving ECT. Most of staff nurses (81.25%) had 1-3 years of working experience in ECT room. Shakya DR and Lama (2010) found that 53.8% of nursing staff had working experience in ECT room, which was less than the present study.

Most of staff nurses (95%) had average knowledge which was more or less similar to the findings of Parihar A, Vyas H and Sharma NK (2013) who found that (26)52% nursing personnel had adequate knowledge⁴. John P (1998) found that 22% mental health nurses had average knowledge and 42% had good knowledge. This was less than the present study. Byrne P, Cassidy B and Higgins P reported that poorer knowledge of ECT was found in psychiatric nurses. The overall mean was 26.95 ± 3.82 which was 56.14% scores; area wise highest mean was 9.55 ± 2.02 which was 53% scores for care of patients during ECT which was similar to the findings of John P (1998) that overall mean score was 34.29 ± 3.31 for mental health nurses, which was more than the present study. Byrne P, Cassidy B and Higgins P

reported that nurses received a mean knowledge score of 34.97⁸. This was more than the present study.

There was a significant association between the knowledge scores and professional qualification, total clinical experience and working experience in psychiatric department at 0.05 level and working experience in ECT room at 0.01 level. However Parihar A, Vyas H and Sharma NK (2013) found that there was a highly significant association between adequate mean knowledge score and inadequate mean knowledge score in both GNM and B.Sc. Nursing. There was a highly significant association between mean adequate knowledge and inadequate knowledge score whose total clinical experience was equal to or less than 15 years at the level of .001significance. There was a highly significant association between mean adequate knowledge and inadequate knowledge score whose total clinical experience in psychiatric unit is equal to or less than 5 years at the level of .001significance. John P (1998) also found that the higher level of knowledge appeared to be associated with the length of experience of the mental health nurses and their area of clinical practice⁷.

CONCLUSIONS

Most of the staff nurses had average knowledge regarding care of patients receiving ECT. Almost all nurses had average level knowledge in all the areas, i.e. introduction and general information about ECT. care of patients before ECT, during ECT and after ECT.

A higher level knowledge appears to be associated with the total length of working experience of staff nurses both in psychiatric department and other areas. Staff nurses who had more experience had more knowledge. Greater knowledge scores were obtained from those staff nurses who had more experience.

The conclusions suggest that knowledge of ECT required improvement and this has implications for nurse education.

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