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A quasi-experimental study to assess the effectiveness of planned teaching programme on knowledge regarding the electroconvulsive therapy among family members of patients with mental illness

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Abstract---Effectiveness of planned teaching programme knowledge regarding the Electroconvulsive therapy among family members of patients with mental illness Objectives were to assess the pre-test knowledge level about electroconvulsive therapy among family members of patients with mental illness in both control and experimental group; To assess the post-test knowledge level about electroconvulsive therapy among family members of patients with mental illness in both control and experimental group; To determine the effectiveness of planned teaching programme on electroconvulsive therapy among family members of patients with mental illness. And to associate pre-test knowledge level on electroconvulsive therapy among family members of patient with mental illness with selected demographic variables. Methodology: The study was quantitative in approach and the design was Quasi-Experimental with pre test post test control group. The sample size was 60 each in experimental & control. Family members of mentally ill patients are population for this study. A Non-probability purposive sampling technique was used to select the samples. Data was collected by using the tools which consisted of demographic data sheet and Knowledge score on electroconvulsive therapy which consisted of 30 questionnaires. Result: The findings show that most of the variables in demographic data of both control and experimental data were similar. We have seen the demographic analysis of both patient relatives who were sample and the patient data. The intervention was found to be effective as experimental group showed good level of knowledge post planned teaching, thus the hypothesis for interventions is accepted. There was no association of demographic variables with pre test knowledge level and the null hypothesis for association is accepted. Conclusion: The study concluded that imparting knowledge regarding electroconvulsive therapy was needed as their belief were clarified and the family members also gained knowledge regarding what is Electroconvulsive therapy.

Keywords---effectiveness, planned teaching programme, electroconvulsive therapy, family members, patients with mental illness.

Introduction

Electroconvulsive therapy (ECT) is a biological treatment procedure involving a brief application of electric stimulus to produce a generalized seizure. ECT is utilized worldwide as one of the most effective biological treatment modalities for various severe, treatment-refractory or treatment-resistant psychiatric disorders, in particular, major depressive disorder (MDD) in western countries and schizophrenia in Asian countries. In the USA, approximately 100,000 patients receive ECT annually. Outpatient ECT, as a continuation treatment or an independent acute course, has become a trend over the past 20 years. Data from the National Institute of Mental Health survey sample showed that a third of ECT recipients were aged 65 years and older; of patients with affective disorders, 3.4% of those under the age of 65 years received ECT, while 15.6% of those 65 years of age and older received ECT. Patient or relatives may refuse ECT when indicated due to myth and little or lack of knowledge about the procedure. The knowledge and attitude towards ECT among the care givers may reflect on patients and influence the treatment of choice. Although ECT is an effective, safe and widely practiced treatment, it has also been one of the most controversial and misunderstood procedure. Unfortunately, in the ongoing debate about the merits and demerits of the treatment, the opinions of their relatives have rarely been sought. Every year, an estimated 1 million patients undergo ECT all around the world. And, according to the data below, nearly ECT has been imposed on a third of the patients, who are either involuntarily patients or have had it imposed on them. Despite psychiatrists' claims that "mental disease" should be treated similar to "physical illness," no one may be forced to have an appendectomy or other surgical procedure against their will or without their agreement. (1) Mental illness also a stigma for our society. People don't want to talk about mental illness, and for any disease treatment is required. Here the treatment is with to treat the psychiatric disorders but some patient require antipsychotics medicine and ECT. Electroconvulsive therapy is the best treatment for some psychiatric disorders but the patients and family members are not aware about that. So, the public awareness is important. (3)

Need of the study

In a quasi-experimental designed research, total of 64 GNM students with 32

each in control and experimental group. Data was collected by using a systematic questionnaire and checklist. The experimental group received organised education module, while the control group received standard hospital exposure training. In terms of knowledge, there was a tremendous improvement score ('t'=15.892, p=0.00) followed by the education module in the experimental group. The control group's learning did not change much after typical exposure education. Score ('t'=1.625, p=0.275). The results also revealed that the experimental group was more skilled than the normal control at offering care for patients having ECT. The findings revealed the organized training module was helpful in boosting the knowledge and abilities of student nurses

The study statements

"A Quasi-Experimental study to assess the effectiveness of planned teaching programme on knowledge regarding the Electroconvulsive therapy among family members of patients with mental illness"

Material and Method

In present study, researcher adopted Quantitative approach & Quasi-Experimental design. It was carried out on 120 [60 control, 60 experimental] participants. The non-probability purposive sampling technique was used, data were collected by using structured questionnaire. Tool was validated by experts from all the departments of Nursing. Reliability was done by using Karl-Pearson Correlation Coefficient the r value was 0.78. Pilot study was done on 12 participants, the study was found feasible. Result: Result was divided into four sections.

Results

Section Ia: Demographic profile of family members which depicts that majority 28.4% were from 51-60 years in the experimental group in control group it was 28.3% According to gender in both group males were maximum with 51.7% were males and 48.3% were females In education majority 36.7% were having diploma, in experimental group and In control majority 36.7% were having diploma, 21.7% were having higher secondary certificate. , the occupation in control group, majority 45% were homemaker, whereas in experimental majority 40% were homemaker. . In the control group, 66.7 percent had a nuclear family while in the experimental group, 63.3 percent had a nuclear family. According to religion in both experimental and control majority 83.3% were Hindu According to previous knowledge about ECT in control majority 83.3% were having no previous knowledge, whereas in experimental majority it was 75% According to relationship of family member with patient, the experimental group showed majority 36.7% were spouse, in control group majority 26.7% were spouse.

Section Ib: It shows the demographic details of the patient whose family member were the sample. According to the age maximum 28.3% patients in experimental group belonged to age group of 51 to 60 years, however in control group majority were in the age group of 51 -60. In gender majority 53.3 % were male in experimental assemblage and 46.7% were females, but in control group both male

and female were equally distributed with 50% each. The education level shows majority in new group 23.3% had studied till higher secondary, % where as in control group also 33.3% was maximum with higher secondary education, where as in control group also 33.3% was maximum with higher secondary education. The burden of the experimental group's mental illness was 53.3% with 6months to 5 years of illness, In control group maximum was 40% with illness for more than 10 years. The majority of patient 32% in experimental group had schizophrenia. In the control group maximum patient had neurotic disorder with 41%.

Section II Pre and post-test knowledge level on the electroconvulsive therapy among family members of patients with mental illness in both groups.

Table No 1: Pre and Post Knowledge level in both groups n=60,60											
Knowledge category/Level	Pre and po	Pre and post-test in control									
	group				group.						
	Pre test		Post test		Pre test		Post test				
	(f)	(%)	(f)	(%)	(f)	(%)	(f)	(%)			
Poor	46	76.7	0	0.0	25	41.7	3	5.0			
Average	14	23.3	5	8.3	35	58.3	46	76.7			
Good	0	0.0	55	91.7	0	0.0	11	18.3			

Section III Effectiveness of the planned teaching program on knowledge regarding electroconvulsive therapy on sample.

Table No.2 : Findings related to effectiveness of planned teaching programme on knowledge regarding electroconvulsive therapy

n=60,60

Paired-t-test								
	Research Group	N	Mean	SD	t-value	p-value		
Pair 1	Pre Control	60	10.43	2.96	10.38	< 0.001		
	Post Control	60	16.77	4.43				
Pair 2	Pre Experimental	60	8.52	2.57	29.81	< 0.001		
	Post Experimental	60	25.15	3.08]			

Interpretation: The value in experimental group of t is 29.81 the value of p is < 0.001. The result is significant at p < .05.

Section IV Association between pre-test knowledge score with selected demographic variables.

n=60,60

In association of knowledge score with in the pre-control group, demographic factors were examined. Because the p-value is greater than 0.05, there is no substantial relationship between knowledge and specified demographic characteristics. As a result, the null hypothesis has been accepted.

Discussion

The study's findings were discussed, along with the aims and hypothesis. The drive of this study was to see how effective a planned education programme was at improving understanding of deep brain stimulation with patients with mental disorder. Kiran Patel (2021) a study conducted on A Efficacy of a Planned Teaching Program on Electro Convulsive Therapy Knowledge among Patient's Relatives ECT in Selected Vadodara Hospitals Background: Although electroconvulsive therapy (ECT) is a viable treatment, it has a negative public and professional image. Efficacy and safety of ECT have continued to improve as a consequence of clinical experience and research. It is vital to undertake studies on this premise in order to change people's perceptions of electroconvulsive therapy. 1. Objectives: 1. Determine the current degree of information about electro convulsive therapy among patients' families who are having ECT. 2. To see how successful organised training is at improving patient's relatives' awareness of electro convulsive therapy. 3. To determine if there is a link between patients' relatives'. The 30 samples were chosen using a purposeful sampling strategy. Before and after the intended teaching programme, structural questioners were used to check knowledge of ECT. Results: The effectiveness of planned training on knowledge of electroconvulsive therapy is assessed using a paired t test analysis. The researcher discovered t value= 24.853, which means that the acquired t value in this study is greater than the t test table value at the 0.05 level of significance. As a result, the t value achieved is substantial. As a result, it appears that patient knowledge of electroconvulsive therapy has improved as a result of planned training relative.

Conclusion

The purpose of this study was to see how effective a planned education programme was at improving understanding of electroconvulsive therapy among family members of patients with mental disorder. The investigation will be conducted using an experimental research design. According to the statistical analysis, between pre-test and post-test, as well as the experiment group, there is a substantial variation in educational level recommended that the planned education on electroconvulsive therapy was effective.

Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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References

- 1. According to one research study as comparison of male patients depressed females takes more ECT. According to American Nursing Association (APA), is 80%, considerably higher than the 50% to 60% success rate of most antidepressant medication. Patient and relatives may refuse ECT when indicated
- 2. Aoki Y, Yamaguchi S, Ando S, Sasaki N, Bernick PJ, Akiyama T. The experience of electroconvulsive therapy and its impact on associated stigma: a meta-analysis. International journal of social psychiatry. 2016 Dec;62(8):708-18.
- 3. Besse M, Methfessel I, Simon A, Wille C, Zilles D. Electroconvulsive therapy in incapable patients refusing treatment: prevalence, effectiveness, and associated factors. The journal of ECT. 2019 Sep 1;35(3):161-4.
- 4. Chen S, Wu Q, Qi C, Deng H, Wang X, He H, Long J, Xiong Y, Liu T. Mental health literacy about schizophrenia and depression: a survey among Chinese caregivers of patients with mental disorder. BMC psychiatry. 2017 Dec;17(1):1-8.
- 5. Cheung O, Baker M, Tabraham P. Improving attitudes toward electroconvulsive therapy. BJPsych bulletin. 2021 Feb 15:1-7.
- 6. Dan A, Grover S, Chakrabarti S. Knowledge and attitude of patients with psychiatric disorders and their relatives toward electroconvulsive therapy. Indian journal of psychological medicine. 2014 Jul;36(3):264-9.
- 7. George LS, Sharma PS, Nair S. Effect of psycho-education on Knowledge, Attitude and Burden among caregivers of persons with Bipolar Disorder–Randomized Controlled Trial. International Journal of Advanced Research. 2015;3(7):199-208.
- 8. Gowda GS, Kumar CN, Ray S, Das S, Nanjegowda RB, Math SB. Caregivers' attitude and perspective on coercion and restraint practices on psychiatric inpatients from South India. Journal of neurosciences in rural practice. 2019 Apr;10(02):261-6
- 9. Gowda GS, Kumar CN, Ray S, Das S, Nanjegowda RB, Math SB. Caregivers' attitude and perspective on coercion and restraint practices on psychiatric inpatients from South India. Journal of neurosciences in rural practice. 2019 Apr;10(02):261-6.
- 10. Gowda GS, Kumar CN, Ray S, Das S, Nanjegowda RB, Math SB. Caregivers' attitude and perspective on coercion and restraint practices on psychiatric inpatients from South India. Journal of neurosciences in rural practice. 2019 Apr;10(02):261-6..
- 11. Griffiths C, O'Neill-Kerr A. Patients', Carers', and the public's perspectives on electroconvulsive therapy. Frontiers in psychiatry. 2019 May 7;10:304
- 12. Grover S, Chakrabarti S, Avasthi A. Knowledge about and attitude toward electroconvulsive therapy of elderly patients with severe mental disorders. Journal of Geriatric Mental Health. 2014 Jul 1;1(2):100.
- 13. Gunasekera T, Fernando R, Peris MU, Kuruppuarachchi KA, Hapangama A. Awareness and attitudes regarding electroconvulsive therapy (ECT) among

- patients and caregivers at a psychiatry unit in a tertiary care hospital in Sri Lanka. Sri Lanka Journal of Psychiatry. 2020 Dec 2;11(2).
- 14. https://gmatclub.com/forum/electroconvulsive-therapy-ect-is-a-controversial-psychiatric-treatm-283719.html
- 15. Ithman M, O'Connell C, Ogunleye A, Lee S, Chamberlain B, Ramalingam A. Pre-and post-clerkship knowledge, perceptions, and acceptability of electroconvulsive therapy (ECT) in 3rd year medical students. Psychiatric Quarterly. 2018 Dec;89(4):869-80.
- 16. Khan K, Basavarajappa C, Kunigiri G. Ease of Use of the Electroconvulsive Therapy App by Its Users: Cross-Sectional Questionnaire Study. JMIR Biomedical Engineering. 2020;5(1):e20730.
- 17. Kiran Patel, Seema Boresa, & Mural Christian. (2021). A Study to Assess the Effectiveness of Planned Teaching Program on Knowledge Regarding Electro Convulsive Therapy among Patient's Relatives Undergoing ECT in Selected Hospitals in Vadodara. *Indian Journal of Forensic Medicine & Toxicology*, 15(4), 1588–1592. https://doi.org/10.37506/ijfmt.v15i4.16934
- 18. Li Y, An FR, Zhu H, Chiu HF, Ungvari GS, Ng CH, Lai KY, Xiang YT. Knowledge and attitudes of patients and their relatives toward electroconvulsive therapy in China. Perspectives in psychiatric care. 2016 Oct
- 19. Lonergan A, Timmins F, Donohue G. Mental Health Nurse experiences of delivering care to severely depressed adults receiving electroconvulsive therapy. Journal of Psychiatric and Mental Health Nursing. 2021 Jun;28(3):309-16.
- 20. Martin DM, Gálvez V, Lauf S, Dong V, Baily SA, Cardoner N, Chan HN, Davidson D, Fam J, De Felice N, Martinez-Amoros E. The Clinical Alliance and Research in Electroconvulsive Therapy Network: an Australian initiative for improving service delivery of electroconvulsive therapy. The journal of ECT. 2018 Mar 1;34(1):7-13.
- 21. Meena SK, Samuel J. A Study to assess the Knowledge and Attitude Regarding Electroconvulsive Therapy among caregivers of Mentally Ill Patients in Selected Government Medical College Attached Hospital and Hospital for Mental Health of Madhya Pradesh State with a View to Develop Pamphlet on it. International Journal of Nursing and Medical Investigation.oct-dec2021;6(4):61-65.
- 22. Mignone S, Zufferey C, De Anstiss H. Family experiences of caring for relatives who have received electroconvulsive therapy (ECT). Australian Social Work. 2018 Jan 2;71(1):86-97.
- 23. Nicola Davis and Pamela Duncan, "Electroconvulsive therapy on the rise again in England," *The Guardian*, 17 Apr 2017, https://www.theguardian.com/society/2017/apr/17/electroconvulsive-therapy-on-rise-england-ect-nhs.
- 24. Panwala ZZ, Dadarwala DD, Mehta RY. The Impact of a "Brief ECT Orientation Module" on the knowledge and attitude of nursing students toward electroconvulsive therapy. Annals of Indian Psychiatry. 2020 Jul 1;4(2):140.
- 25. Patel Manisha M., Suresh.V, Bhoomika Patel, "A Study to Assess the Effectiveness of Video Assisted Teaching on Knowledge regarding Electroconvulsive Therapy among Patients Relatives undergoing ECT in Selected Hospitals in Vadodara", International Journal of Science and

- Research (IJSR), https://www.ijsr.net/get_abstract.php?paper_id=ART20181264, Volume 7 Issue 4, April 2018, 631 633
- 26. Rostami P, Sadeghian E, Akbari A. The effect of counseling on self-esteem and health-promoting behaviors in psychiatric patients receiving electroconvulsive therapy: A clinical trial study. Avicenna Journal of Nursing and Midwifery Care. 2021 Dec 10;29(4):7-.
- 27. Roy CP, Baruah A, Baruah B. Effectiveness of teaching module on Electro Convulsive Therapy (ECT) nursing care among the visiting General Nurse Midwifery (GNM) students. Indian J Psy Nsg [serial online] 2016 [cited 2022 Feb 3];11:25-8. Available from: https://www.ijpn.in/text.asp?2016/11/1/25/262301
- 28. Sadeghian E, Rostami P, Shamsaei F, Tapak L. The effect of counseling on stigma in psychiatric patients receiving electroconvulsive therapy: A clinical trial study. Neuropsychiatric disease and treatment. 2019; 15:3419.
- 29. Samalin L, Yrondi A, Charpeaud T, Genty JB, Blanc O, Sauvaget A, Stéphan F, Walter M, Bennabi D, Bulteau S, Haesebaert F. Adherence to treatment guidelines in clinical practice for using electroconvulsive therapy in major depressive episode. Journal of affective disorders. 2020 Mar 1;264:318-23.
- 30. Satyaveer Singh Pundir, A Student to Assess the Effectiveness of a Planned Teaching Programme on Knowledge Regarding Electroconvulsive Therapy among the 3rd Year B.Sc. Nursing Students in Selected Nursing Colleges at Udaipur, Rajasthan. International Journal of Science and Research (IJSR) ISSN: 2319-7064, Volume 9 Issue 6, June 2020
- 31. Shamsaei F, Kazemian H, Cheraghi F, Farhadian M. The effect of family teaching on depression, anxiety and stress in caregivers of patients received electroconvulsive therapy. The Journal of Mental Health Training, Education and Practice. 2019 Jun 27.
- 32. Sharma N, Ghai S, Grover S. Knowledge and attitude of nursing students toward electroconvulsive therapy. Journal of neurosciences in rural practice. 2017 Aug;8(S 01):S007-12.
- 33. Solomon S, Simiyon M, Vedachalam A. Effectiveness of an educational intervention on medical students' knowledge about and attitude towards electroconvulsive therapy. Academic Psychiatry. 2016 Apr 1;40(2):295-8.
- 34. Tsai J, Huang M, He H, Selek S, Rosenheck RA. Cross-cultural Comparison of Perceptions and Knowledge About Electroconvulsive Therapy Among Adults Who Screened Positive for Depression in the United States, India, and China. The Journal of ECT. 2021 Dec 1;37(4):274-80.
- 35. Tsai J, Huang M, Lindsey H. Perceptions and knowledge related to electroconvulsive therapy: A systematic review of measures. Psychological services. 2021 May;18(2):227.
- 36. Tsai J, Huang M, Rosenheck RA, Wilkinson S. A randomized controlled trial of video psychoeducation for electroconvulsive therapy in the United States. Psychiatric Services. 2020 Jun 1;71(6):562-9.
- 37. Tsai J, Huang M, Wilkinson ST, Edelen C, Rosenheck RA, Holtzheimer PE. A measure to assess perceptions and knowledge about electroconvulsive therapy: development and psychometric properties. The journal of ECT. 2020 Mar 1;36(1):e1-6.

- 38. Tsai J, Huang M, Wilkinson ST, Edelen C. Effects of video psychoeducation on perceptions and knowledge about electroconvulsive therapy. Psychiatry research. 2020 Apr 1;286:112844.
- 39. Tsygankova V, Grullon A, Woolwine B, Subler A, Schwab P, Hermida A. Caring for Older Adults with Depression Receiving Electroconvulsive Therapy (ECT) During the 2020 Pandemic. The American Journal of Geriatric Psychiatry. 2021 Apr 1;29(4):S64-5.
- 40. Vabren Watts, "Psychiatrists Discuss Benefits, Risks of ECT," Psychiatric News, 15 Jun2015, http://psychnews.psychiatryonline.org/doi/full/10.1176/appi.pn. 2015.6b16?trendmd-shared=1.
- 41. Vaghee S, Sepehrikia M, Saghebi SA, Behnam Voshani H, Salarhaji A, Nakhaee Moghaddam Z. Comparison of the effect of face-to-face and multimedia education on the anxiety caused by electroconvulsive therapy in patients with mood disorders. Evidence Based Care. 2017;7(1):25-34.
- 42. Weiss A, Hussain S, Ng B, Sarma S, Tiller J, Waite S, Loo C. Royal Australian and New Zealand College of Psychiatrists professional practice guidelines for the administration of electroconvulsive therapy. Australian & New Zealand Journal of Psychiatry. 2019 Jul;53(7):609-23.
- 43. Wilhelmy S, Rolfes V, Grözinger M, Chikere Y, Schöttle S, Groß D. Knowledge and attitudes on electroconvulsive therapy in Germany: a web based survey. Psychiatry research. 2018 Apr 1;262:407-12.
- 44. Zhang QE, Zhou FC, Zhang L, Ng CH, Ungvari GS, Wang G, Xiang YT. Knowledge and attitudes of older psychiatric patients and their caregivers towards electroconvulsive therapy. Psychogeriatrics. 2018 Sep;18(5):343-50.
- 45. Zong QQ, Qi H, Wang YY, Zhang C, Balbuena L, Ungvari GS, An FR, Xiang YT. Knowledge and attitudes of adolescents with psychiatric disorders and their caregivers towards electroconvulsive therapy in China. Asian journal of psychiatry. 2020 Mar 1;49:101968.