

Original Research Article

Knowledge and attitude of patients and their relatives towards electro-convulsive therapy: a study from a tertiary care centre in Northern India

Yuman Kawoos^{1*}, Zaid Ahmad Wani¹, Irfan Ahmad Shah², Yasir Hassan Rather¹,
Waris Ahmad Zarger¹, Rehana Amin¹

¹Department of Psychiatry, Government Medical College, Srinagar, Kashmir, India

²Department of Neurology, Government Medical College, Srinagar, Kashmir, India

Received: 14 April 2017

Accepted: 08 May 2017

*Correspondence:

Dr. Yuman Kawoos,

E-mail: yumankawoos@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Electro-convulsive therapy (ECT) has been effective in various psychiatric disorders and is life-saving in some conditions. Despite its effectiveness and lack of serious side-effects, its use is restricted due to negative attitude of patients and their relatives towards ECT. The objective of the study was to study the attitude of patients and their attendants towards ECT. Also, we studied their knowledge regarding ECT prior to the administration of ECT.

Methods: A 16 item questionnaire was formulated to be used for assessing the attitude and knowledge about ECT and was administered after translating it into Urdu language for better understanding. Patients planned for ECT were administered the questionnaire after taking consent. A total of 60 patients and 60 attendants were taken up for the study.

Results: About 60-70% of patients gave correct (right) responses to questions like ECT being life-saving procedure, need of investigations before ECT and other questions like question numbers 1,5,6,7,11,14,15. There was little knowledge regarding other areas like use of ECT in pregnant females and elderly (question numbers 2, 4, 10, 12). The patients as well as their attendants did not differ significantly in the responses given to the queries. Maximum number of patients received knowledge regarding ECT from doctors; few had attained it from other sources like internet.

Conclusions: The study is a preliminary one and emphasizes the need for better standardized questionnaire for proper assessment. It also gives us an insight into lack of knowledge among patients and their attendants regarding ECT.

Keywords: Attitude, Electro-convulsive therapy, Knowledge, Side-effects

INTRODUCTION

Electro-convulsive therapy (ECT) has been used since 19th century for treating various psychiatric disorders. ECT is an effective and safe procedure and helps to shorten the hospital stay.^{1,2} Despite its wide uses and lesser side-effects, it is still under-utilized due to negative attitude and beliefs regarding ECT. There is very little

knowledge among people regarding its life-saving properties like in Suicidality, refusal to take orals, catatonia etc. It is regarded as a treatment reserved for cases who do not respond to pharmacotherapy although a number of studies have shown it to be equally efficacious as that of pharmacotherapy.³ The attitude and knowledge of patients and their relatives has been studied in a number of studies to know the reasons behind its under-utilization.^{4,5} However the attitude of patients and their

relatives towards ECT has not been assessed much in developing countries.^{6,7} In majority of these studies, the questionnaire was formulated by clinicians taking into account the regional and cultural trends. There has been lot of debate on the fact that very few patients and their family members really understood the facts related to ECT.⁸ Many studies have been done so far to know about the attitude and knowledge regarding ECT.^{9,10,11} A differentiating point between Indian and Western studies is that the studies done in India show good knowledge and positive attitude towards ECT as compared to western studies among patients and their attendants.^{12,13}

Till now, no such study has been done in this part of the world. We therefore undertook the present study to know about beliefs and knowledge of our patients and their attendants towards the procedure.

METHODS

A total of sixty patients and their healthy attendants were taken up for the present study. Patients for the study were taken from department of Psychiatry from a tertiary care hospital and only those patients were included who were planned for ECT. Patients were taken from both out-patient as well as in-patient sections of the hospital. The patients were questioned few days before receiving ECT. The attendants were also interviewed in the same settings. A total of sixty attendants were taken up for the study. The questionnaire was administered by a psychiatrist. Patients, who were acutely psychotic, had organic brain disorder or, had severe mental retardation so as to impair their capacity to understand the items of the questionnaire were excluded from our study. The questionnaire was formed by three senior psychiatrists after analyzing various questionnaires used in assessing the attitude towards ECT. The questionnaire was translated into urdu language by three residents and compared to assess the content validity. The questionnaire was translated back into English and compared with the original one to assess the reliability.

RESULTS

Questionnaire characteristics

The answers given by patients and their relatives were pre-determined to be either right or, wrong. Ambiguous answers (doubtful) were taken as wrong. The patients were given three choices in the answers; agree, disagree and uncertain. The answer agree was taken to be right for items 4,6,7,12,14 and 16 while the response disagree was taken to be right for the remaining items except one item which enquires about the mode of receiving information regarding ECT. If right response was given by 20% to 30% respondents, it was taken to be poor knowledge regarding ECT. If more than 40% respondents gave right responses, it was taken as good knowledge. In case more

than 70% respondents gave right responses, it was taken as very good knowledge.

Sample characteristics

The socio-demographic characteristics of our patients have been given in Table 1.

Table 1: Socio-demographic characteristics of patients and their attendants.

Demographics	Patients	Attendants
Age	38 ± 12	42 ± 13
Gender (M/F)	32/28	4/26
Marital status (M/UM)	36/24	40/20
Residence (R/U)	34/26	34/26
Relationship with patient		
Parents		28
Spouse		20
Children/ Siblings		12

M= male, F= female, M= married, UM= unmarried, R= rural, U= urban.

Response to questions

The patients and their relatives gave almost similar responses to the questions. (Table 2), (Table 3). Very good knowledge was seen on many items (like when asked about need of investigations before ECT, life-saving effects of ECT) as assessed by higher percentage of right responses given by more than 70% of respondents. Poor knowledge was seen in few items like use of ECT in elderly and pregnant females, ECT as a treatment given for only resistant cases, as assessed by lesser number of people giving correct responses.

Item-wise description of the results

When asked about need of investigations before ECT; 70% patients agreed that there is a definite need for doing so, 20% were uncertain about it and the rest disagreed giving the impression that majority of people know that ECT is a procedure requiring baseline investigations like any other procedure. Among relatives, 90% agreed about doing investigations before ECT.

Regarding the frequency of ECT sessions per week; only 45% were of the opinion that it should be given more than once per week, 30% patients were uncertain about it. Among relatives, 40% attendants were uncertain about the frequency at which ECT is given depicting their lack of knowledge. When asked about ECT being a painful procedure, about 75% patients and 70% attendants disagreed showing good acceptance of the procedure among them. With regards to the use of ECT in older people, 50% patients and 30% attendants were uncertain about its use in elderly implying poor knowledge regarding use of ECT in elderly.

Table 2: Knowledge and attitude of patients towards ECT.

Questions asked	No. of patients who agreed (%)	No. of patients who disagreed (%)	No. of patients uncertain (%)
1. No need of investigations before ECT	6 (10%)	42 (70%)	12 (20%)
2. ECT should not be given > once/week	15 (25%)	27 (45%)	18 (30%)
3. ECT is very painful	45 (75%)	9 (15%)	6 (10%)
4. ECT can be given to older persons also	12 (20%)	18 (30%)	30 (50%)
5. ECT is given as punishment to violent patients	6 (10%)	45 (75%)	9 (15%)
6. Many times, ECT proves to be life saving	48 (80%)	6 (10%)	6 (10%)
7. Use of ECT leads to temporary impairment in memory	48 (80%)	6 (10%)	6 (10%)
8. Following discovery of new medicines, treatment with ECT should not be done	30 (50%)	24 (40%)	6 (10%)
9. ECT is given to those patients who have little chance of improvement	45 (75%)	6 (10%)	9 (15%)
10. Use of ECT leads to permanent impairment in memory	12 (20%)	24 (40%)	24 (40%)
11. ECT is an inhuman treatment	12 (20%)	36 (60%)	12 (20%)
12. Pregnant women can also receive ECT	12 (20%)	24 (40%)	24 (40%)
13. During ECT, anesthetic and other medicines are used	42 (70%)	6 (10%)	12 (20%)
14. During ECT, chances of death are very high	6 (10%)	36 (60%)	18 (30%)
15. Would you advise ECT to a close relative	42 (70%)	18 (30%)	0 (0%)

Table 3: Knowledge and attitude of attendants towards ECT.

Questions asked	Attendants agreed	Attendants disagreed	Attendants uncertain
1. No need of investigations before ECT	6 (10%)	54 (90%)	0 (0%)
2. ECT should not be given > once/week	15 (25%)	21 (35%)	24 (40%)
3. ECT is very painful	12 (20%)	42 (70%)	6 (10%)
4. ECT can be given to older persons also	18 (30%)	24 (40%)	18 (30%)
5. ECT is given as punishment to violent patients	6 (10%)	48 (80%)	6 (10%)
6. Many times ECT proves to be life saving	42 (70%)	12 (20%)	6 (10%)
7. Use of ECT leads to temporary impairment in memory	36 (60%)	12 (20%)	12 (20%)
8. Following discovery of new medicines, treatment with ECT should not be done	36 (60%)	15 (25%)	9 (15%)
9. ECT is given to those patients who have little chance of improvement	48 (80%)	3 (5%)	9 (15%)
10. Use of ECT leads to permanent impairment in memory	9 (15%)	33 (55%)	18 (30%)
11. ECT is an inhuman treatment	6 (10%)	39 (65%)	15 (25%)
12. Pregnant women can also receive ECT	9 (15%)	33 (55%)	18 (30%)
13. During ECT, anesthetic and other medicines are used	48 (80%)	0 (0%)	12 (20%)
14. During ECT, chances of death are very high	6 (10%)	42 (70%)	12 (20%)
15. Would you advise ECT to a close relative	48 (80%)	12 (20%)	0 (0%)

Patients were asked if ECT is a sort of punishment to violent patients; about 75% disagreed and verbalized it to be a treatment modality.

Regarding life-saving effects of ECT, majority (80%) patients agreed to it and the rest were uncertain showing that majority of patients were of the opinion that ECT is helpful in some emergency conditions where drugs don't help much. When asked about temporary impairment in memory after ECT, 80% patients agreed to memory impairment of retrograde type after the procedure.

In case new medicines were discovered, should ECT be discontinued; about 50% patients and 60% attendants agreed to it showing lack of knowledge regarding the procedure and implying use of ECT only in resistant conditions.

When asked about ECT being given to patients who don't improve by any means, about 75% patients agreed depicting the common misconception that ECT is a treatment reserved for only resistant cases and can't be given in acute conditions.

Regarding permanent impairment in memory due to ECT, 40% patients agreed to it and 20% disagreed.

When patients were asked if ECT is an inhuman treatment, 60% patients disagreed. With regards to use of ECT in pregnant females, 40% patients were uncertain regarding its use showing poor knowledge about use of ECT in pregnancy.

When we asked our patients about the source of information regarding ECT, maximum (70%) said they received it from doctors; few (10%) got it from internet and the rest from other sources.

Patients were asked about use of anesthetic medications in the procedure; 70% agreed to their use.

When asked if the chances of death in the procedure were very high; 60% patients disagreed and said that the chances of death due to the procedure were very less. At the end, patients were asked if they would advise ECT to any close relative when needed; maximum (70%) replied yes implying very good acceptance of the procedure.

DISCUSSION

Knowledge and attitude of patients and their attendants towards ECT has an impact on the outcome of the procedure said topic in developing countries like India.¹⁴ Some of the studies done earlier show a positive attitude and good knowledge among majority of patients planned for ECT in India.^{15,16}

Among our patients and their attendants, very good knowledge was seen in many areas in relation to ECT like temporary impairment in memory caused by ECT, use of anesthetic medications in the procedure. There were many other areas where our patients had poor knowledge regarding ECT like use of ECT in pregnant females or in elderly. The response uncertain (doubtful) was taken to be incorrect for all questions.

Our study shows favourable attitude of patients and their relatives towards ECT which is in concordance with some other studies done on ECT.^{16,17,18} Although certain areas of ignorance need to be addressed like use of ECT in elderly and pregnant females, administering ECT twice a week, using ECT where a rapid response is needed even if the condition is not a resistant one. After the procedure, the attitude of patients was more favourable towards ECT although few side-effects like that of retrograde amnesias reported by good number of patients. Having knowledge about attitude of patients and their relatives towards ECT, we can address the areas of negative beliefs or, go for counseling before planning ECT in our patients. This will improve patient participation in the procedure and help in removing the stigma towards the procedure.

Our study had few limitations. An un-standardized instrument was used to assess the knowledge of patients and their relatives which was not checked for reliability

and validity. The questionnaire was administered to patients already planned for ECT. Also, samples were taken from a single centre.

CONCLUSION

Although the attitude of patients and their caretakers was favourable towards ECT, certain areas of ignorance need to be addressed. There is also need of a well validated questionnaire for assessing the knowledge and attitude towards ECT. For better patient understanding of ECT, all patients should be asked questions regarding ECT and their lack of knowledge should be addressed properly so as to remove the stigma and negativity towards ECT. Patients as well as their attendants should be taught the effectiveness as well as side-effects of the procedure.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: None required

REFERENCES

1. Weiner RD. Treatment optimization with ECT. *Psycho-pharmacol Bull.* 1994;30:313-20.
2. American Psychiatric Association. The Practice of ECT: Recommendations for Treatment, Training and Privileging. *Convulsive Ther.* 1990;6(2):85.
3. Pankratz WJ. Electroconvulsive therapy: the position of the Canadian Psychiatric Association. *Can J Psychiat.* 1980;25(6):509-14.
4. Carney S, Geddes J. Electroconvulsive therapy. *Br Med J.* 2003;326:1343-4.
5. Malcolm K. Patient's perceptions and knowledge of electroconvulsive therapy. *Psychiat Bull.* 1989;13:161-5.
6. Johnstone L. Adverse psychological effects of ECT. *J Mental Health.* 1999;8:69-85.
7. Little JD. ECT in the Asia Pacific region: what do we know? *J ECT.* 2003;19:93-7.
8. Chakrabarti S, Grover S, Rajagopal R. Perceptions and awareness of electroconvulsive therapy among patients and their families: a review of the research from developing countries. *JECT.* 2010;26:317-22.
9. Taieb O, Flament MF, Corcos M. Electroconvulsive Therapy in adolescents with mood disorder: patients' and parents' attitudes. *Psychiatry Res.* 2001;104:183-90.
10. Ramachandra BN, Lalitha G, Janakiramaiah N. Patients' knowledge about ECT. *NIMHANS J.* 1992;10:27-31.
11. Arshad M, Arham AZ, Arif M, Bano M, Bashir A, Bokut M, et al. Awareness and perceptions of electroconvulsive therapy among psychiatric patients: a cross-sectional survey from teaching hospitals in Karachi, Pakistan. *BMC Psychiat.* 2007;7:27-3
12. Benbow SM. Patients' views on ECT on completion of a course of treatment. *Convul Ther.* 1988;4:146-52.

13. Iodice AJ, Dunn AG, Rosenquist P et al. Stability over time of patients' attitudes toward ECT. *Psychiatry Res.* 2003;117:89-91.
14. Agarwal AK, Andrade C. Indian psychiatrists' attitudes towards ECT. *Indian J Psychiat.* 1997;39:54-60.
15. Chavan BS, Kumar S, Arun P, Kumar S, Bala C, Singh T. ECT: Knowledge and attitude among patient and their relatives. *Indian J Psychiat.* 2006;48:34.
16. Salzman C. ECT: Research and professional ambivalence. *Am J Psychiat.* 1998;115:1-2.
17. Freeman CPL, Kendell RE. ECT: I Patients' experiences and attitudes. *Br J Psychiat.* 1980;137:8-16.
18. Goodman JA, Krahn LE, Smith GE. Patient satisfaction with electroconvulsive therapy. *Mayo Clin Proc.* 1999;74:967-71.

Cite this article as: Kawoos Y, Wani ZA, Shah IA, Rather YH, Zarger WA, Amin R. Knowledge and attitude of patients and their relatives towards electro-convulsive therapy: a study from a tertiary care centre in Northern India. *Int J Res Med Sci* 2017;5:2433-7.