

Electro convulsive therapy: knowledge and attitude among medical students

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Abstract

Background: Electroconvulsive therapy (ECT) is a technique used to treat mental illnesses by applying electric current through the brain to induce convulsions. Stigmatized views regarding ECT also present among health care professionals which influences their decision in patient's future treatment.

Aim: to assess knowledge and attitude of medical students regarding ECT.

Methods: A cross-sectional study was carried out among 180 medical students. Non-psychiatric clinician's knowledge about and attitudes towards ECT was used to assess the association among various factors.

Results: Negative attitudes like ECT causes pain to the patients (n=116), is cruel (n=40), used for punishment of violent patients(n=45) and misused by psychiatrists (n=47) were more prevalent and also significantly co-related with Unwillingness to receive ECT if indicated.

Conclusion: Results of the study suggests that Most of the knowledge was obtained from mass media and rather than demonstration of ECT, hence negative attitudes were more prevalent.

Keyword: Electro convulsive therapy, knowledge, attitude, medical students, convulsive

Introduction

Electroconvulsive therapy (ECT) is a technique used to treat mental illnesses by applying electric current through the brain to induce convulsions. Although ECT is one of the most effective treatments for various psychiatric disorders since its introduction, it is one of the most controversial therapies in psychiatry.^[1] The negative views related to the ECT tend to get reinforced from lack of knowledge and negative attitudes towards it. Misinformation regarding ECT has been promoted through various sources like: 1) the media, including articles in the newspapers and television news; 2) illustrations in films; and 3) the internet.^[2]

Stigmatized views about ECT are also shared among the healthcare workers and medical students as well, consequence of inadequate education in medical schools.^[3] The knowledge and attitudes of health professionals are crucial in reducing fear and promoting understanding of ECT among patients and families. It is responsibility of healthcare professionals to involve in patient's treatment to convey comprehensive, accurate, and supportive information to assist patients and family members in making an informed choice about receiving ECT and thus decrease anxiety regarding the procedure.^[3]

A key reason for assessing the views towards ECT is to identify deficits and areas that can be addressed to reduce the stigma against ECT and promote its perception by public and non-psychiatric health professionals.^[4] Hence, with this objective, I have planned this study to assess for the knowledge and attitude among medical student regarding ECT.

Methodology

This cross-sectional study was performed at a tertiary care hospital and affiliated medical college in western India. The study was approved by Institutional Ethical Committee.

The study population consists of 18-35 years old medical students including MBBS students, interns and resident doctors. Those who have received ECT were excluded from the study. Written informed consent was obtained from the participants.

The sample size was set at 180. Socio-demographic details were recorded. Anonymity and confidentiality were maintained. No incentives were offered to take part in the study.

Non-psychiatric clinician's knowledge about and attitudes towards ECT scale administered which is a two-page questionnaire regarding knowledge about and attitudes towards ECT. Responses were examined for each participate.

The statistical analysis was performed using SPSS software. To measure the association between two variables chi-square test was applied.

Results

Among the 180 participants, 55% (n=99) were Female and 45% (n=81) were male. The mean age group was found to be 20.4 years. The sample consisted of 16.6% (n=30) Resident doctors, 18.3% (n=33) Interns, 23.3% (n=42) 3rd Year MBBS students, 19.4% (n=35) 2nd Year MBBS students and 22.2% (n=40) 1st Year MBBS students.

Among total sample 40% had learned about ECT from a psychiatrist, 12.2% had learned about ECT from patients, and 64% had learned references to ECT in the mass media. With increase in seniority, there was a significant increase in chances of having heard about ECT from a psychiatrist. 56.6% of students considered that their chief sources of information about ECT were casual rather than serious. 39.9% believed that the mass media particularly television and movies, had been the most important influence on their attitudes towards ECT. Only 25% students regarded clinical sources as important determinants.

Eighty percent thought that ECT is moderately used today, and 89.6% agreed that it can benefit certain mentally ill patients. Only 35% of the sample was aware that the average patient receives 5-10 ECT; many 39.9% believed that less than or equal to 4 treatments constitute a characteristic course. 38% of students believed that ECT is administered less frequently than once a week. Only 7% correctly identified a frequency of administration of two to three per week. Chances of correct response increases with seniority.

TABLE 1. Attitudes towards and concerns about ECT

	No.	%
ECT causes pain to the patient. ^a	116	64.4

ECT causes brain damage. ^a	25	13.8
ECT impairs thinking and reasoning.	25	13.8
ECT is cruel and barbaric. ^a	40	22.2
ECT is used to punish violent or uncooperative patients. ^a	45	25
ECT is unsafe and may kill. ^a	10	5.5
Psychiatrists misuse ECT.	47	26.1
ECT is more likely to be misused than medical or surgical treatments.	18	10

Values presented are no. Of students who responded in the affirmative of total sample of 180.^a indicates that senior students were significantly less likely than junior students to respond in the affirmative.

Just 45% expressed willingness to receive ECT if indicated for themselves.

TABLE 2. Correlation between Unwillingness for ECT and attitudes.

Attitudes	Chi-square	P value
ECT causes pain to the patient.	95.3605	0.00001*
ECT causes brain damage.	23.7537	0.00001*
ECT impairs thinking and reasoning.	9.8651	0.001684*
ECT is cruel and barbaric	33.2468	0.00001*
ECT is used to punish violent or uncooperative patients.	35.6229	0.00001*
ECT is unsafe and may kill.	2.6738	0.102012
Psychiatrists misuse ECT.	23.2949	0.00001*
ECT is more likely to be misused than medical or surgical treatments.	1.0999	0.294291

***p value <0.05 considered as statistically significant**

As per table Unwillingness to receive ECT significantly co-related with negative attitudes like ECT is cruel and barbaric, causes brain damage, used to punish violent or uncooperative patients, impairs thinking and reasoning and it causes pain to the patients. Surprisingly it is significantly related with negative attitude that psychiatrists misuse ECT.

	No.	%
ECT is more effective than drugs.	45	25
ECT is the riskier treatment.	101	56.1
ECT used in some, not all psychiatry disorders.	175	97.2
ECT used only as last resort.	60	33.3

ECT practice should be restricted by law.	106	58.8
ECT is outmoded.	45	25

TABLE 3. Knowledge and legal aspects regarding ECT

Values presented are no of students who responded in the affirmative of total sample of 180. Senior and junior students did not differ significantly on the remaining variables.

DISCUSSION

This study extensively examines medical student's knowledge about and attitude ECT. And Interesting finding was, despite the medical background of the students and their exposure to psychiatry, the mass media was identified as the most common and most influential source of information about ECT. Therefore, most students reported their source of information was casual rather than serious. As mass media tends to show negative aspects of ECT, one might therefore expect that students are poorly informed and they tend to harbor negative attitudes toward the treatment.

The students were poorly informed about several variables, like the average number of ECT that constitute course, the time frame over which the course is administered, the frequency of administration of ECT, etc.

Two negative views seemed prevalent: that ECT causes pain to the patients and ECT is a cruel and barbaric procedure. Also, many students believed that psychiatrists misuse ECT. Many students believed statements like ECT was used to punish violent or uncooperative patients, ECT is likely to be misused than medical and surgical treatments and ECT causes brain damage. Due to such negative attitudes many students reported Unwillingness to receive ECT if indicated for themselves.

Many students felt that ECT should be restricted by the law and is a riskier treatment. We believe that it might be due to negative portrayal of ECT in mass media regarding electricity application and elicitation of convulsions.

The widely held beliefs discussed above are the myths of electroconvulsive therapy. Neither shock nor convulsion is essential. Memory loss, which does occur, is neither permanent nor essential and brain damage or death, is a rare event in ECT. Knowledge about the ECT process is less than knowledge about any other treatment mode in psychiatry.^[5]

In this study, surprisingly we found no significant differences between senior and junior students and in males and females regarding the knowledge and attitude towards ECT.

This may be due to small sample size and less students in every group. Which were our limitations. For future studies pre and post ECT demonstration can be useful.

Demonstration of ECT and proper curriculum including knowledge of ECT should be a part of undergraduate curriculum as health care professionals might get involved in future decisions regarding ECT.

Conclusion

Negative attitudes regarding ECT were prevalent due to lack of knowledge and misconceptions regarding ECT, as most of the knowledge was obtained from mass media rather than a clinical source. Negative attitudes significantly co-related with students' unwillingness to receive ECT if indicated.

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Conflict of interest

There are no conflicts of interest.

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