

Knowledge and Attitude of Patients with Psychiatric Disorders and their Relatives Toward Electroconvulsive Therapy

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ABSTRACT

Objective: Knowledge and attitude regarding electroconvulsive therapy (ECT) is one of the important parameters for acceptance of ECT as a safe and effective treatment option. Several factors shape the knowledge and attitude of general people such as previous experience of ECT, sources of their information about ECT and prevailing myths about ECT. The present study attempted to examine the knowledge and attitude concerning ECT among patients with psychiatric disorders and their relatives. **Materials and Methods:** Knowledge and attitudes regarding ECT were assessed using the Bengali version of the ECT knowledge and attitude questionnaires, between 100 clinically stable patients with mental illnesses and their healthy relatives. **Results:** Majority of the patients and relatives were unaware of the basic facts about ECT. Relatives were somewhat better informed and more positive about ECT than patients, but the differences between the two groups were not significant. Previous experience of ECT did not have any major impact in knowledge and attitude in both patients and relative groups. Patients obtained information, mostly from media (44%), doctors (23%), and from personal experiences (13%). On the other hand, relatives obtained information almost equally from media (26%), doctors (27%), and experience of friends or relatives (28%). No significant difference was observed in knowledge and attitude in patients who had obtained their facts from doctors ($n=23$) and from other sources ($n=77$). Among relatives, those who had obtained their information from doctors ($n=27$) were better informed than those who had obtained so from other sources ($n=73$). **Conclusions:** Since patients and relatives have poor knowledge and negative attitude toward ECT, medical professionals should impart proper information about ECT to patients and relatives to increase the acceptability of this treatment.

Key words: Attitude, electroconvulsive therapy, knowledge

INTRODUCTION

Electroconvulsive therapy (ECT) is one of the oldest treatments in psychiatry, which has survived the test

of time. Despite controversies surrounding its use it still remains one of the most efficacious treatments for many severe mental disorders.^[1-3] However, lot of stigma is attached to the use of ECT, which undermines the acceptance of this treatment by the general public.^[4,5] In contrast to the negative view about ECT among the general public, studies which have evaluated the knowledge and attitude of mentally ill patients who have received ECT and their relatives, suggest that they are mostly satisfied with the experience if ECT.^[6-8] Studies which have evaluated the attitude of patients and relatives before and after ECT also show that attitudes become more positive following the experience

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of the treatment.^[9-11] Even relatives who have been a part of the process of ECT administration are usually better informed and have more positive attitude toward ECT, than those who have never had such experience of ECT.^[12,13]

Fewer studies have evaluated the knowledge and attitude concerning ECT among mentally ill patients who have not received ECT and their relatives.^[14,15] This is an important group not only because they might be potential candidates for ECT, but they may also influence perceptions of other patients regarding ECT. India is a vast country with varying treatment standards with respect to ECT. Recently, there has been a lot of concern about the indiscriminate use of ECT in India.^[16] More studies on the knowledge and attitude of patients and relatives can inform this debate about the practice of ECT. Hence, the present study attempted to examine the knowledge and attitude concerning ECT among patients with psychiatric disorders and their relatives from Burdwan Medical College, Burdwan.

MATERIALS AND METHODS

The study was approved by the Research and Ethics Committee of the institute where it was conducted. All the participants were recruited after obtaining proper written informed consent.

Participants

This study involved 100 patients (aged more than 18 years) with mental illnesses and their relatives attending the Department of Psychiatry of a teaching and tertiary-care hospital in Burdwan. The patients included in the study were clinically stable at the time of assessment. The relatives of the patients were aged more than 18 years, were free from any major physical or psychiatric illnesses, were staying with the patients and were actively involved in their treatment.

Assessments

In their landmark study, Freeman and Kendell^[17] developed a series of questionnaires to assess knowledge and attitudes toward ECT among patients who had received ECT. These were modified by Tang *et al.*^[18] and subsequently used in other studies. Following a pilot study, English and Hindi versions of these questionnaires were adapted for use among Indian patients and their relatives, and applied to group of patients who had received ECT.^[19] Versions of the same questionnaires were simultaneously validated among a large population of relatives from the same center.^[14] The current study employed a Bengali version of these questionnaires. For this purpose, the English version of the questionnaire was translated and back translated using the World Health Organization methodology^[20] by bilingual experts.

Data analysis

Being largely a descriptive study, only a bare minimum analysis of the data (using the Statistical Package for the Social Sciences (SPSS), version 14) was done. Descriptive statistics consisted of frequency counts, percentages, means, and standard deviations. Chi-square tests were used for comparisons.

RESULTS

Profile of patients and relatives

The study included 100 patients and their relatives. The socio demographic profile of the patients and relatives is shown in Table 1.

Clinical profile

Among the patients included in the study, 30 were suffering from a psychotic disorder, 19 from bipolar disorder, 33 from depressive disorders, 8 from obsessive compulsive disorder, and 10 were suffering from “other mental disorders due to brain damage and dysfunction and to physical disease.” Of the 100 patients included, only 13 had received ECT in the past.

Knowledge of electroconvulsive therapy among patients and relatives

Knowledge about ECT was assessed using a 31-item questionnaire. Each item had three responses: A correct, an incorrect, and a “don’t know” response. Incorrect and “don’t know” responses on any question were combined while analyzing the data, because both

Table 1: Socio-demographic profile of patients and the caregivers

Variable	Frequency/ Mean (SD)	Frequency/ Mean (SD)
Age (in years)	37.52 (13.25)	41.53 (13.33)
Gender		
Male	61 (61)	65 (65)
Occupation		
Unemployed/Household	53 (53)	30 (30)
Education		
Upto matric (10 th standard)	62 (62)	56 (56)
Beyond matric	38 (38)	44 (44)
Family income in Indian rupees		
Upto 2500	36 (36)	
>2500	64 (64)	
Religion		
Hindu	61 (61)	
Family type nuclear	35 (35)	
Locality urban	64 (64)	
Relationship with patient		
Parents	27 (27)	
Siblings	30 (30)	
Spouse	28 (28)	
Children	12 (12)	
Others	3 (3)	

signified that the participants were unaware about ECT [Table 2].

None of the patient and relative had full knowledge about different aspects of ECT. Majority of the patients and relatives were unaware of the basic facts about the procedure of ECT, informed consent, indications, effectiveness, and side effects. Overall on most of the questions relatives' had better knowledge than the patients. However, the differences between the two groups were non-significant. Surprisingly, compared to patients, significantly more relatives believed that "ECT can worsen the psychiatric illness for which it is used" and "ECT can damage body parts other than brain." However, compared to patients, significantly less number of relatives

believed that "those who receive ECT later develop epilepsy." There was no difference in the knowledge of patients who have received ECT in the past ($n=13$) and those who had not received ECT ($n=87$), except that those who had received ECT had significantly better knowledge on the item of "ECT is generally useful in the conditions for which it is used" (Chi-square value with Yates correction 4.41; $P=0.03$), whereas those who had not received ECT had better knowledge with respect to use of ECT in various setups (i.e. ECT can be given to both inpatients and outpatients) (Chi-square value with Yates correction 4.06; $P=0.04$). Moreover, there was no difference in the knowledge of the relatives whose patient had received ECT in the past and whose patients had never received ECT.

Table 2: Knowledge of ECT among patients and relatives

	Correct response	Patients N=100	Relatives N=100
Procedure			
During ECT, anaesthetic /other medications are used	Yes	50	50 NS
How often is ECT given per week?	1-3 times a week	47	52 NS
How many ECTs do most patients require in one course?	Usually 1 – 10	46	50 NS
Where is the current applied?	To the head	53	56 NS
Who can administer ECT?	Psychiatrists/doctors	47	53 NS
What is ECT?	Treatment using electricity	64	54 NS
Certain investigations are needed before ECT	Yes	46	56 NS
How long is the current applied?	Seconds	39	45 NS
How is ECT given?	By a special machine	32	37 NS
Informed consent			
Is written permission of the patient or his/her family member always necessary?	Yes	41	48 NS
ECT can be given against the wishes of patients	No	30	38 NS
ECT can be administered against the wishes of the family?	No	40	27 NS
Indications			
ECT is often used to...	Treat acute psychiatric conditions not responding to drugs	51	54 NS
ECT is given to only those patients who have little chance of improvement	No	49	56 NS
ECT can also be given to older persons (> 60-65 years)	Yes	44	34 NS
ECT is given only to inpatients	No	27	30 NS
Pregnant women can also receive ECT	Yes	43	33 NS
Effectiveness/mechanism of action			
ECT is useful in treating psychiatric disorders 1	Yes	46	46 NS
Compared to medications, how useful is ECT? 1	More or equally useful	46	53 NS
ECT often worsens the psychiatric illness	No	42	26*
How does the ECT work?	By correcting brain-changes causing symptoms	44	41 NS
Effects of ECT last only for a short while	Yes	42	48 NS
Does ECT result in a permanent cure?	No	47	44 NS
Scientific evidence favours the usefulness of ECT	Yes	40	44 NS
Side effects			
Use of ECT leads to temporary impairment of memory	Yes	45	50 NS
Use of ECT leads to permanent loss of memory	No	42	46 NS
ECT results in permanent damage to brain	No	44	52 NS
ECT can damage other body-parts permanently	No	50	35*
During the ECT chances of death are very high	No	44	51 NS
Headache is a common side effect of ECT	Yes	54	52 NS
Most of patients receiving ECT develop epilepsy later	No	42	59*

* $P<0.05$

Attitudes toward electroconvulsive therapy among relatives

Attitudes toward ECT were assessed using a 15-item questionnaire. Each item had three alternatives based on which responses were categorized into positive, negative, or ambivalent attitudes [Table 3].

Positive attitudes toward ECT were found in slightly less than half of the patients (45%). Positive attitudes were somewhat more common among relatives (53%), but not significantly so for most items. Negative attitudes were quite common among the participants, including patients 29-45%, average 38%) as well as relatives (25-45%, average 33%). Only a few patients (11-20%) and relatives (8-23%) were uncertain about their attitudes to ECT. There was no significant difference between the patients and relatives on different aspects of attitude toward ECT, except that significantly higher percentage of relatives had positive attitude with regard to that "ECT gets a person better quicker than drugs" and a smaller proportion of relatives had negative attitude on the item: "If ECT fails in a patient, then no other treatment will succeed." There was no difference in attitude of those patients who had received ECT in the past and those who had not received ECT. The same was true for the relatives of patients who had received ECT in the past and those who had not received ECT.

Source of information about electroconvulsive therapy

Patient and relatives were also asked about the sources from which they had derived their information about ECT. The primary source of information in about two-fifth of the patients was media (movies, television,

newspapers, books, magazines) and one-fifth of them had obtained the information from a psychiatrist or physician. On the other hand, one-fourth of the relatives had the information from media, psychiatrist or physician or from the experience of a relative or a friend [Table 4].

Comparison of knowledge and attitude of patients who had obtained their facts from doctors ($n=23$) and from other sources ($n=77$) did not reveal any significant difference. With regard to knowledge of relatives, comparison of those who had obtained their facts from doctors ($n=27$) and from other sources ($n=73$) revealed significant differences between the two groups on 5 of the 31 items [Table 5] relating to knowledge of ECT, with all favoring those who had obtained their information from doctors. However, there was no difference in attitude toward ECT between the two groups.

DISCUSSION

This study examined the knowledge and attitudes of patients with mental illnesses and their relatives towards ECT. Compared to most of the previous studies, which have evaluated these aspects in patients who have received ECT, the present study predominantly included patients who had never received ECT and their relatives.

Although the awareness about ECT in this population of patients and relatives who had no experience of ECT was similar to those who had been exposed to the treatment, their attitudes to ECT were markedly different.

Table 3: Attitudes towards ECT among patients and relatives

	'Patients' group (N=100)			'Relatives' group (N=100)			
	Positive attitude	Ambivalent attitude	Negative attitude	Positive attitude	Ambivalent attitude	Negative attitude	
ECT is dangerous and should not be used?	55	16	29	60	10	30	NS
ECT is an inhumane treatment?	52	18	30	53	19	28	NS
I will advise a close relative to receive ECT if recommended	43	18	39	51	14	35	NS
ECT is often given to people who do not need it?	43	13	44	57	13	30	NS
ECT is often given as a punishment to violent/angry patients?	49	20	31	53	14	33	NS
Following discovery of new medicines, treatment with ECT is never required?	44	20	36	45	12	43	NS
If ECT fails in a patient, then no other treatment will succeed?	38	16	46	54	17	29*	
ECT is at times life saving?	45	15	40	45	8	47	NS
Treatment with ECT is cruel?	44	11	45	49	15	36	NS
Treatment with ECT is outdated?	50	15	35	51	23	26	NS
Treatment with ECT should be outlawed?	45	16	39	44	7	49	NS
Once a person is given ECT, in future whenever he becomes ill, ECT is the only treatment option?	35	20	45	48	14	38	NS
ECT gets you better quicker than drugs?	35	20	45	67	8	25*	
ECT is given indiscriminately to people?	47	15	38	52	16	32	NS
ECT is the worst treatment option under any circumstances?	49	17	34	61	10	29	NS

NS – *P* value above 0.05, NS – Not significant, **P*<0.05

The majority of the patients and relatives of the present study were unaware of the basic facts about the procedure of ECT, informed consent, indications, effectiveness and side effects. The poor knowledge about ECT among patients observed in the present study was no different from studies of patients who have actually undergone ECT.^[11,13,15,17-19] Such studies from developing countries suggest that less than a-quarter of patients (0-23%) have complete or near-complete knowledge and understanding of the procedure of ECT.^[19,21-23] Patients are usually not aware of the various intricate aspects of ECT (e.g. different indications, techniques, adverse effects, mechanism, etc.). Studies from the West have also found that most of the patients have poor knowledge about various aspects of ECT.^[11-13,17,24-32] In patients and relatives with no experience of ECT this unawareness is probably a result of lack of access to proper sources of information. The fact that a majority of the participants of the current study obtained their information from the media indicates that this was the most likely cause for their unawareness regarding ECT. Moreover, among relatives those who had obtained their information from doctors were more knowledgeable about ECT.

In the present study, there was no significant

Table 4: Primary Source of information regarding ECT obtained by patients and their relatives

Source of information	Frequency (%)	
	For patients	For relatives
Personal experience of ECT	13	0
Experience of friends or relatives	7	28
General word of mouth	12	12
Movies	9	9
Television	21	9
Newspapers, books, magazines	14	8
Professional publications	9	7
Explanation from a psychiatrist	13	18
Explanation from another physician	10	9
Explanation from other staff e.g. nurses, social workers	2	0
Course or lecture in school	3	0
Did not answer	4	

Table 5: Comparison of knowledge between caregivers who had obtained their information from the doctors (including psychiatrists) and other sources (including media)

	Relatives	
	Information from the doctors (including psychiatrists)	Information from the other sources (including different media)
	Number of correct responses (N=27)	Number of correct responses (N=73)
How is ECT given?	15	22*
ECT can lead to permanent damage to other parts of the body?	14	21*
Use of ECT leads to temporary impairment of memory	21	29**
Where is the current applied?	22	34 **
ECT can be administered against the wishes of the family?	17	23*

* $P < 0.05$, ** $P < 0.01$

difference between the knowledge of patients and the relatives. Only few studies, mainly from developing countries have evaluated the knowledge and attitude toward ECT of relatives of patients with mental disorders. Most of these studies suggest that relatives are better informed.^[5] However, most of these studies have evaluated relatives of patient who have received ECT. Awareness of ECT is generally poor among relatives of patients who have not received ECT.^[14,15] The lack of differences between patients and relatives could also be due to the small number of patients of this study who had received ECT in the past.

The results also clearly showed that this group of patients, most of whom had never received treatment with ECT, only about half of the participants viewed ECT positively, while a very high proportion had negative perceptions of ECT. Other studies, which have assessed attitudes among patients and relatives with no experience of ECT, have come to similar conclusions.^[14,15] These findings are in marked contrast to those obtained among patients and relatives who have had some experience of the treatment. Such patients, and particularly their relatives, usually have very positive attitudes toward ECT.^[14,19,5]

Taken together the results of the present study suggest that when patients and relatives have no experience of ECT they are more likely to derive their knowledge and attitudes about ECT from sources such as the media and not doctors who administer ECT. This not only leads to unawareness about ECT, but also engenders negative attitudes about the treatment. Attitudes toward ECT are more likely to be favorable when shaped by personal experience and information obtained from doctors, rather than media portrayals of the treatment. Accordingly, educating patients with psychiatric disorders and their relatives about ECT is a responsibility that mental health professionals need to take more seriously.

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