PATIENT SATISFACTION WITH ELECTROCONVULSIVE THERAPY IN A TERTIARY CARE HOSPITAL

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ABSTRACT

Objectives: To determine the frequency of satisfied patients with ECTs in a public sector tertiary care hospital.

Design: Cross-sectional, descriptive study

Place and Duration of study: The study was carried out in the in-patient department of Institute of Psychiatry, Benazir Bhutto Hospital, Rawalpindi, a tertiary care public sector hospital, from October 2010 to June 2011.

Subjects and Methods: A consecutive sample of 163 inpatients of both genders, excluding acutely disturbed patients was recruited. Proforma regarding the socio-demographic details was filled by the participants. ECT satisfaction Questionnaire was orally administered in Urdu to each participant for the assessment of their satisfaction with ECT. Data was analyzed using SPSS 10.0.

Results: Using the ECT satisfaction Questionnaire, 62.6% patients were satisfied while 37.4% were dissatisfied with ECT.

Conclusion: Majority of patient was satisfied with Electroconvulsive therapy. However there is a need to explore specific reasons for satisfaction/dissatisfaction with this treatment modality in order to im prove the delivery of this treatment in accordance with the patients' expectations for better treatment adherence and improved outcomes.

Key Words: Patient satisfaction, Electroconvulsive therapy, Electroshock therapy.

INTRODUCTION

Electroconvulsive therapy (ECT) is a therapeutic technique which employs the use of electric current passed through the brain to induce grand mal seizures[1]. ECT was introduced in its current form almost seventy years ago. In the basic ECT paradigm, psychiatrists follow a prescribed protocol to induce an epileptic seizure in the patient. A short-acting anesthetic and a muscle relaxant are given concurrently and the patient is oxygenated before a brief measured dose of electrical current is passed through the patient's brain. To prevent tongue biting, a mouth guard is inserted. The whole procedure takes a few minutes[2].

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Its benefits are established in the treatment of major depression, mania and catatonia[3] however the most common indication for ECT is treatment-resistant depressive illness[4]**.** The revised guidelines of the Royal College of Psychiatrists recommend that ECT should be the treatment of choice for severe depressive illness when the illness is related with attempted suicide, strong suicidal ideation, or life threatening disease because of refusal of food or fluids[5].

The benefits of ECT are established but it is also surrounded by controversy and low acceptability amongst the general population and an anti-ECT movement exists in the World. Media has also played negative role about the image of ECT. In Pakistan research regarding patient satisfaction with ECT is very limited. In a recent study it has been reported that about 88% of the patients who were being treated with ECT were satisfied with the treatment and were willing to have it again[6]. The use of unmodified ECT, i.e., without general anesthesia or muscle relaxant is carried out regularly in many hospitals. This has repercussions on the outcome of the procedure. Due to insufficient training and lack of Informed consent, patient satisfaction with ECT becomes an important outcome measure.

Assessing patients' views about ECT are important for several reasons: it can determine patients' acceptability of the treatment, it can help modify media portrayal of the procedure, and the information can be used to advocate adequate ECT service utilization.

In Pakistan this treatment is surrounded by major social stigma which perhaps remains the greatest obstacle to public acceptance of this treatment. The prevalence of a variety of myths regarding ECT in our society may be responsible for the patients' adverse attitudes. Primitive practices of the past, negative media representations, irrational fears of electricity and overstated fears of memory loss all add to this stigma. WHO recommends that as much as possible, ECT be administered in its modified format[7], and in developing countries where psychiatrists still use unmodified ECT, ethical concerns naturally dictate the discourse. Unmodified ECT is fraught with unnecessary complications and in the presence of a better option it stands to reason that proposals to outlaw or discard unmodified ECT have basis. Proponents for the continued use of unmodified ECT argue that scale of the side effects attributable from it as reported in Western literature may have been overstated in the light of recent evidence[8].

There has been relatively little examination into the attitudes of patients and the general public toward ECT and why these attitudes are held. The first study of this nature was by Gomez in 1975, who tried to understand why, as she believed, "many patients and their relatives view the prospect of ECT with horror" [9].

There is no nationally representative data on the practice and outcome of ECT in Pakistan. Keeping in mind this background, the current study would be quite useful in terms of determining how well the patients are satisfied with this therapy and what measures exactly need to be taken so as to improve this service in accordance with the needs and expectations of the patients for improved adherence to this treatment.

SUBJECTS AND METHODS

Patient satisfaction with ECT is the degree to which the individual patients regard the health care service, product or manner in which it is delivered by the provider as useful, effective or beneficial. It was measured by the ECT satisfaction questionnaire. This is a Likert type scale with 44 items, with each individual item having a score of 1-5. The overall score range is 44-220 with a cut-off score of 132. So patients scoring more than 132 would be considered satisfied and less than 132 dissatisfied.

This study was conducted at the in-patient department of Institute of Psychiatry, Benazir Bhutto Hospital, Rawalpindi for a period of 8 months from 26th October 2008 till 26th June 2009. The total number of participants was 163, who were consecutively recruited from the in-patient department during the study period by using consecutive (non-probability) sampling technique. Sample size was calculated by using W.H.O software sample size calculator.

All patients aged 18 years or more, who have completed their ECT course and who can understand and speak Urdu language were included in the study. Acutely disturbed patients and those who did not consent were excluded.

Permission from the Hospital Ethical Committee was sought and informed written consent was taken from all the patients who met the selection criteria. Patients' confidentiality was ensured throughout the study. Minimum number of ECT administered was 4 and maximum was 12. Majority (n=141, 86%) of the participants had depression and other indications included postnatal psychosis, mania not responding to drugs, and catatonic schizophrenia. 105 patients (64%) received un-modified ECT while remaining 58 (36%) received ECT under short-term general anesthesia. The machine used in the department is Ectonustim (constant current series 6, made in England) and it uses constant current 750 mA for one to two seconds and majority of the patients had30 to 50seconds fits and had spontaneous recovery. Proforma was administered to the study participants and all the relevant socio-demographic details such as age, gender, educational status were obtained. The ECT satisfaction Questionnaire was administered verbally by the first author in Urdu to all the participants (Annexure A).

All the collected data was entered in the computer and analyzed in SPSS v. 10. For the continuous variables i.e. age, satisfaction score Mean ± S.D was calculated. For the categorical variables i.e. gender, educational status, marital status, employment status, satisfaction with ECT, frequencies and percentages were presented.

RESULTS

The total number of participants was 163 (n=163), all in-patients, recruited consecutively over a 8 month period from 29th October 2010 till 28th June 2011. The mean age of the sample was 33.94 (S.D±11.64), with an age range of 18-64 years. (Table 1) Among the participants, 93(57.1%) were males and 70(42.9%) females. 54(33.1%) were single, 81(49.7%) married, and 28(17.2%) were divorced. 25(15.1%) were educated till 5th class, 21(12.9%) were educated till class 8th, 43(26.4%) were matriculate, 22(13.5%) had done their Bachelors, and 23(14.1%) had done their Masters. 83(50.9%) were employed and 80(49.1%) were unemployed. Out of the participants,102(62.6%) were satisfied and 61(37.4%)were dissatisfied with ECT (Table 2). The minimum, maximum and mean ECT satisfaction scores were 78, 210, 141.99(± 26.29) respectively (Table 3).

Table 1

Mean age of the participants (n=163)

	n	Mini-mum	Maxi-mum	Mean	Std. Deviation
Age of patients	163	18	63	37.95	12.55

Table 2

Patient Satisfaction with ECT (n=163)

Patients' Satisfaction with ECT	Frequency	Percentage
Satisfied	102	62.6
Dissatisfied	61	37.4

Table 3

Mean ECT satisfaction score of the participants (n=163)

	Mini-mum	Maxi-mum	Mean	St. Deviation
ECT satisfaction score	78	210	141.99	26.29

DISCUSSION

The principal finding of our study was that 102/163 patients i.e 62.6% were satisfied with ECT whereas 61/163 i.e 37.4% were dissatisfied with the treatment. This is a significant finding and is in concordance with many of the relevant studies published locally and internationally.

There is no nationally representative data on the practice and outcome of ECT in Pakistan. In one of the few studies on the subject, a 13-year naturalistic review of ECT practice at a tertiary care university hospital in Karachi was carried out, which is in concordance with the current study. It was found that of 4.013 in-patients,136 (3.38%) received ECT. The average number of ECTs administered per patient was 6 (range 1-20). ECT was administered with a brief-pulse constant-current apparatus. A total of 75% patients showed improvement in their clinical condition. No major complication was observed[6]. So this finding can be conveniently compared with the 62.6% satisfaction with ECT revealed from our study.

Another study conducted by Arshad et al [10] explored knowledge and awareness of psychiatric Patients (n=190) at two tertiary care hospitals in Karachi. The study revealed that there were many myths and misperceptions about the procedure, a popular one being that ECT is used only as a treatment of 'last resort' and in cases of 'complete insanity' or 'imminent death'. The common sources of information were, in order, the electronic media, print media, and relatives and friends. Only 23% identified doctors as a source of information. Further, while the majority accepted ECT's effectiveness as a treatment modality, 62% felt that the procedure would result in serious side-effects, including injuries, neurological impairments, cognitive disturbances and pain. Around 42% of surveyed patients were skeptical of ECT's safety, with 59% saying "no" when asked if they would agree to undergo ECT on the advice of a psychiatrist. However, 28% considered it completely safe, with 12% considering it safe only when the proper procedural guidelines were followed, i.e., with anesthesia and muscle relaxants. About one-third of patients surveyed felt ECT was unnecessarily prescribed by psychiatrists[10].

Our study is in line with the research conducted by Pettinati et al (1994) who surveyed patients' attitudes toward ECT both before and after treatment in a sample of 56 depressed patients and 22 depressed patients not treated with ECT. Ninety-eight percent of the ECT-treated group said they would have ECT if they became depressed again, compared with 70% of those who had not had ECT. Sixty-two percent found the experience less frightening than going to the dentist, compared with 14% of the group who had not had ECT[11].

Our study can be compared with another research by Tang et al from Honk Kong that examined attitudes toward, and satisfaction with ECT involving 96 patients and their 87 relatives. It showed that the majority of patients believed they had not received adequate information about ECT. Patients and their relatives had only limited knowledge of ECT, yet the majority was satisfied with the treatment and, having found it beneficial, maintained a positive attitude toward its use. The researchers concluded that Hong Kong Chinese patients and their relatives accepted ECT as a treatment. However, the way information was provided to patients and relatives when obtaining consent for ECT needed improvement[12].

Our study is also seconds the results of the research conducted by Kerr et al [13] who studied 178 subjects who were placed into 1 of 3 groups. The first group comprised patients who had received ECT, the second were visitors to ECT-treated psychiatric patients, and the third group comprised of the visitors to non-ECT treated patients at the same hospital. The study found many widely held misbelieves about ECT, the most prevalent of which included: ECT is painful, patients fear conscious shocks, memory being permanently wiped out, ECT is a barbaric inhuman treatment, and patients are never told what is happening. Although incorrect beliefs about ECT were common in all groups, there were fewer misconceptions held by older subjects, those who were more highly educated, and those who had experience of ECT either personally or through a friend. Having fewer misconceptions did not, however, appear to dispel appre-

hensions about having the treatment oneself, and a reduction in fear of the procedure was associated only with an explanation of ECT by a doctor. Females generally were more afraid of ECT than males.

The results of our study are in concordance with that of Goodman et al who found that patients who had received ECT were 91% in favor of the treatment, considerably more than in the control group. The degree of satisfaction correlated with higher levels of education and younger age[14]. Our results are also in line with the research conducted by Freeman and Kendell, which was a retrospective study of the experiences and attitudes toward ECT of 166 patients who had received treatment up to 6 years earlier. They found that before their treatment, almost 50% of the patients either had no fears or were actually reassured and pleased that their treatment was soon to begin[15].

In conclusion, our study found a high degree of patient satisfaction with ECT. However there is a need to explore specific reasons for satisfaction/dissatisfaction with this treatment modality in order to improve the delivery of this treatment in accordance with the patients' expectations for better treatment adherence and improved outcomes.

IMPLICATIONS

This study found a high degree of patient satisfaction with ECT. The ECT satisfaction questionnaire was easy and convenient to administer to patients and there were no difficulties in terms of obtaining the responses and interpreting them appropriately. Appropriate measures can be adopted for improving this mode of treatment in accordance with the patients' and caregivers' expectations for better treatment adherence and improved outcomes.

LIMITATIONS

The sample size was small therefore the study findings cannot be generalized to the whole population. This research was conducted by a doctor working in the department the patients were possibly too hesitant to criticize the services. Ideally the research should have been conducted by a third party not belonging to the department for unbiased responses. The study did not probe into the specific reasons for satisfaction or otherwise. Ideally the study should have included a control group for comparison for making the study more methodologically sound.

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Annexure-A

ECT Satisfaction Questionnaire

	Definitely false	Mostly false	Not sure	Mostly true	Definitely true
Your Overall Satisfaction					
ECT helps people.	1	2	3	4	5
People should not be afraid of ECT.	1	2	3	4	5
ECT is dangerous.	5	4	3	2	1
Many people are helped by ECT.	1	2	3	4	5
I am glad that I received ECT.	1	2	3	4	5
I had to wait too long to be treated on days I received ECT.	5	4	3	2	1
I felt safe receiving ECT.	1	2	3	4	5
If my doctor recommended ECT in the future, I would choose to have ECT treatment.	1	2	3	4	5
I was afraid to receive ECT.	5	4	3	2	1
ECT was painful.	5	4	3	2	1
I can remember having a seizure during ECT.	5	4	3	2	1
Your Satisfaction With Results					
ECT improved the quality of my life.	1	2	3	4	5
I am very satisfied with the results of my ECT treatment.	1	2	3	4	5
I am more discouraged since my ECT treatment.	5	4	3	2	1
I am sleeping worse since my ECT treatment.	5	4	3	2	1
My appetite is not as good since my ECT treatment.	5	4	3	2	1
I have more energy since my ECT treatment.	1	2	3	4	5
I am more confused since my ECT treatment.	5	4	3	2	1
I am more optimistic since my ECT treatment.	1	2	3	4	5
I have less physical pain since my ECT treatment.	1	2	3	4	5
I get along with others better since my ECT treatment.	1	2	3	4	5
Your Satisfaction With Staff					
I can remember being in the ECT treatment area.	1	2	3	4	5
I can remember the people who work in the ECT treatment area.	1	2	3	4	5
The ECT treatment area provided privacy for me.	1	2	3	4	5

I was treated with respect by the person who started my IV	1	2	3	4	5
I was treated with respect by the person who was with me when I woke up after ECT.	1	2	3	4	5
I was treated with respect by the people in the room where I received ECT.	1	2	3	4	5
The ECT treatment area did not provide enough privacy for me.	5	4	3	2	1
Your Satisfaction With Education					
Staff spent enough time with me describing ECT.	1	2	3	4	5
I received the right amount of information about ECT.	1	2	3	4	5
I received too much information about ECT.	5	4	3	2	1
I did not receive enough information about ECT.	5	4	3	2	1
Talking about ECT with my nurses and doctors made me less afraid of ECT.	1	2	3	4	5
I talked with another patient who had ECT, which made me less afraid to have ECT.	1	2	3	4	5
I did not know enough about ECT to decide if it was the right treatment.	5	4	3	2	1
All of my questions about ECT were answered to my satisfaction.	1	2	3	4	5
Your Feelings					
I feel full of pep and energy most of the time.	1	2	3	4	5
I feel full of life.	1	2	3	4	5
I am a very nervous person.	5	4	3	2	1
I feel so down in the dumps that nothing can cheer me up	5	4	3	2	1
I feel calm and peaceful.	1	2	3	4	5
I feel downhearted and low.	5	4	3	2	1
I feel comfortable in groups.	1	2	3	4	5
I feel tired and worn out most of the time.	5	4	3	2	1