

Assessment of level of anxiety among attendants of the patients undergoing Electroconvulsive Therapy at a tertiary care hospital

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Abstract: *The present study was conducted with the objective to assess the level of anxiety among the attendants of patients undergoing Electroconvulsive Therapy (ECT) at a tertiary care hospital. A descriptive approach was applied to gather the information. All the attendants whose patients were getting ECT were assessed for Trait and State anxiety levels one day prior to ECT and at the time when patients were receiving ECT. A total of 48 attendants who met the inclusion criteria were taken up as subjects of the study. The Spielberger's State and Trait anxiety Inventory was used to assess the level of anxiety among the attendants. Trait anxiety was within normal range for majority (77%) of the subjects where as State anxiety was significantly high in most (62.6%) of the subjects and very high in 12.5% of the subjects. The study shows that State anxiety was significantly high in attendants when their patients were undergoing ECT.*

Keywords: State anxiety, Trait Anxiety, Electroconvulsive therapy

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INTRODUCTION

Anxiety is frequently associated with a sense of helplessness, isolation and feelings of insecurity, all of which threatens a person's identity and which we have experienced in one way or another. It is a state of uneasiness or discomfort experienced to varying degrees. It is frequently coupled with guilt, doubts, fears and obsessions. Mild to moderate anxiety can be functionally effective as it helps to focus our attentions and generates energy and motivation. However, severe anxiety and panic narrows our attention to a crippling degree. The research on anxiety has been conducted within two separate traditions: firstly as an acute emotion and a personality construct; and secondly, as a mental

disorder or an illness. The first line of research is mainly done by psychologists based on psychometric tools with a major focus on individual differences. The second line of research is mainly done by clinicians such as psychiatrists and psychiatric nurses based on qualitative categories with a focus on case studies. Literature shows that anxiety disorders are common in general population than any other disorder including depression.¹

It has been observed that anxiety is an ubiquitous phenomenon in everyday life and distinction can be made between State anxiety and Trait anxiety. State anxiety has been conceptualized by Spielberger (1966)² as a transitory emotional state of human organism

and it varies in intensity and fluctuates over time. It is also characterized by consciously perceived apprehension and activations of autonomic nervous systems. State anxiety arousal should be high in circumstances that are perceived by an individual to be threatening irrespective of objective danger. State anxiety is an unpleasant emotional arousal in face of threatening demands or dangers. A cognitive appraisal of threat is a pre-requisite for the experience of this emotion. Trait anxiety, on the other hand, reflects the existence of stable individual differences in tendency to respond with stable anxiety in the anticipation of threatening situations.³

It has been seen that among many instruments used to assess anxiety, the State Trait Anxiety Inventory (STAI)⁴ is more commonly used because of its psychometric properties. It has 20 items each to assess Trait anxiety and State anxiety.

Any illness may be anxiety-provoking. However, mental illness, because of many misconceptions and stigma attached to it, is more susceptible to arouse anxiety in the family members of a mentally sick person. Electroconvulsive therapy (ECT) is used as one of the therapeutic modalities in various psychiatric conditions. Patients and their attendants, because of their ignorance, are likely to associate electric current with electrocution. They suffer from various degree of anxiety and this anxiety is expected to increase when patients are in ECT room and the attendants are waiting outside the ECT room. There is a very little work done in this crucial area and there is a need to study the level of anxiety in the attendants of the patients undergoing this procedure. Thus the current study was undertaken to investigate the level of anxiety among attendants of the patients undergoing ECT.

MATERIALS AND METHODS

The study was conducted in the Psychiatry ward of Nehru Hospital, PGIMER, Chandigarh. A total of 48 attendants of 22 patients were the subjects taken up for the study. A standardized questionnaire {State Trait Anxiety Inventory (STAI) by Spielberger, Sharma and Singh (1973)} was used to assess the anxiety level of the attendants. The STAI (Trait) scale consists of 20 statements which ask people to report how they generally feel. The STAI (State) scale also consists of 20 statements which ask people to report how they feel at a particular moment in time⁴. The attendants were interviewed a day prior to patients receiving ECT about their socio-demographic information and were administered the STAI (Trait) scale. On the subsequent day, when the patients were receiving ECT the STAI (State) scale was administered to the subjects.

The items were scored on a four point scale i.e. Not at all: 1, some what: 2, moderately so: 3 and very much so: 4. The scoring is reversed in some items in both State and Trait scales. Higher scores indicated higher anxiety levels.

The Z score is calculated by subtracting the obtained raw score from the mean score and by dividing the product by the standard deviation.

RESULTS

Out of 22 patients who were receiving ECT, half were suffering from bipolar disorder, 9(41%) were suffering from schizophrenia and only one (4.54%) had post partum psychosis. (Table 1)

The mean age of the subjects was 39.25 yrs \pm 13.75 with the range between 17 to 66 years. Maximum (37.5%) belonged to the age

Table 1
Distribution of patients as per the diagnosis (n=22)

Diagnostic categories	n (%)
Schizophrenia	
• Catatonic	4 (18.18%)
• Paranoid	3 (13.63%)
• Undifferentiated	2 (9.09%)
Bipolar disorder (BPAD)	
• BPAD with current episode of mania with psychiatric symptoms	5 (22.72%)
• Severe depressive episode with psychotic symptoms	3 (13.63%)
• Severe depressive disorder with psychotic symptoms	1 (4.54%)
• Recurrent depressive disorder, current episode without psychiatric symptoms	1 (4.54%)
• Recurrent depressive disorder, current episode with psychiatric symptoms	1 (4.54%)
Other neurotic disorders	1 (4.54%)
Postpartum psychosis	1 (4.54%)

group of 21-30 years. 68.7% of the study subjects were male. Approximately half (58.3%) were from rural background. About one third was graduates and were in government and private jobs. Majority (75%) study subjects were having previous knowledge of ECT and the source of knowledge was the physician (83.3%). (Table 2)

Spouses, brothers & father-in-law were 16.7% each of study subjects. 14.5% of the study subjects were fathers and 10.4% were mothers of the patients. Only 2% were as sister-in-law and daughter-in-law. (Table 3)

Trait anxiety was within normal range in 77% of study subjects and above normal in 23% subjects. The State anxiety was within the normal range in 25% of subjects and above the normal limit in 62.6% of the subjects whereas 12.4% were having very high levels of State anxiety. (Table 4)

There was significant relationship between the level of State anxiety and Trait anxiety in the subjects corresponding to the diagnostic categories of their patients. ($X^2=7.53$, $X^2=4.71$ respectively, $p<0.01$). (Table 5 and 6)

DISCUSSION

Anxiety is a complex phenomenon. The increased level of anxiety alters the mental and

Table 2
Sociodemographic characteristics of study subjects N=48

Demographic characteristics	n	(%)
Age		
11-20	02	(4.2)
21-30	18	(37.5)
31-40	07	(14.5)
41-50	08	(16.7)
51-60	09	(18.8)
61-70	04	(8.3)
Gender		
Male	33	(68.7)
Female	15	(31.3)
Habitat		
Rural	28	(58.3)
Urban	20	(41.7)
Education		
Primary	05	(10.4)
Middle school	08	(16.7)
High school	10	(20.8)
Diploma	06	(12.5)
Graduate	18	(37.5)
Post graduate	01	(2.3)
Occupation		
Unemployed	06	(12.5)
Unskilled worker	03	(6.2)
Agriculture	05	(10.4)
Service	17	(35.4)
Business	08	(16.7)
Housewife	09	(18.8)

physical well being of an individual. The environmental and internal stressors arising from a new situation increases the level of anxiety. In the case of mentally ill persons, especially when ECT is prescribed, fear and apprehension are

Table 3
Relationship of the study subjects with the patients N=48

Relationship	n (%)
Mother	5 (10.4)
Father	7 (14.5)
Brother	8 (16.7)
Sister	3 (6.2)
Uncle	2 (4.2)
Aunt	3 (6.2)
Spouse	8 (16.7)
Father in law	8 (16.7)
Brother in law	2 (4.2)
Sister in law	1 (2.1)
Daughter in law	1 (2.1)

likely to occur among patients. The attendants responsible for their care, cannot keep themselves away from the feeling of anxiety their loved one is undergoing. The feeling of anxiety of the attendants is perceived by the patient and he becomes more anxious. This vicious circle keeps on till some one expert in handling the anxiety situation comes to their rescue.

As per findings of the current study, trait anxiety was within normal range in 77% of study subjects. The State anxiety was above the normal limit (above +1 and +2) in 62.6% of the subjects and within normal range for 25% whereas 12.5%

Table 4
State and Trait level of anxiety in the study subjects (N=48)

Z score	State n (%age)	Trait n (%age)
Normal (<1)	12(25)	37(77)
Above 1	15(31.3)	9(18.8)
Above 2	15(31.3)	2(4.2)
Above 3	6(12.4)	-

were having very high (more than +3 standard deviation) level of State anxiety.

The literature reviewed so far has not yielded much information in this crucial area. What has been documented is that being an attendant and caregiver can be an arduous experience and it constitutes a potential threat to their physical, psychological and social health. However in one of the studies done on the anxiety level of the psychiatric patients undergoing ECT and their attendants, it has been documented that the Trait anxiety level in the patient's attendants was less (40.83 ± 9.94) than the State anxiety (42.16 ± 14.06).⁵

In fact much of the work has been done on patients' perceptions⁶, attitudes and experiences⁷ towards ECT. A study conducted at the Masters' level in the University of Utah on the anxiety levels

Table 5
State anxiety level amongst the subjects as per diagnosis of the patients (N=48)

Diagnostic categories	N	High (n=36)	Normal (n=12)	X ²	Significance
Schizophrenia	18	15	3	7.53	P<0.01
Bipolar disorder	22	14	8		
Other neurotic disorder	1	0	1		
Post partum psychosis	7	7	0		

Table 6
Trait anxiety level amongst the subjects as per diagnosis of their patients (N=48)

Diagnostic categories	N	High (n=8)	Normal (n=40)	X ²	Significance
Schizophrenia	18	3	15	4.71	P<0.01
Bipolar disorder	22	3	19		
Other neurotic disorder	1	1	0		
Post partum psychosis	1	1	0		

of psychiatric patients during a course of ECT didn't show a statistically significant increase in anxiety over the initial or base anxiety level. The authors postulated that the discomfort the patients suffer may be fear rather than anxiety. They also felt that a large, more controlled sample could produce more meaningful results. Patients seem to experience unpleasant feelings associated with ECT, but the feelings must be identified and explored before help can be rendered to alleviate them.⁸

Studies done on patients' anxiety levels using STAI showed that patients had increased anxiety before ileocolonoscopy, a major invasive procedure as compared to less invasive procedure such as small bowel radiography⁹. It was also found that anxiety level increases over waiting time for elective cardiac catheterization. Studies showed that level of anxiety increases more in patients who have never had a catheterization than in those who have had a previous catheterization.¹⁰

From the results of the current study it is concluded that as the attendants of the patients undergoing ECT experience a considerable level of anxiety, various interventions should be planned for them to break the vicious cycle of anxiety.

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