

“A Study to Assess the Knowledge and Attitude among the Family Members of the Patients Undergoing the Electro Convulsive Therapy Svims, Tirupati,”

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Abstract: Introduction: Electroconvulsive therapy is a procedure done under general anesthesia in which small electric current passed through the brain, intentionally triggering a brief seizure, ECT seems to cause change in brain chemistry that can quickly reverse symptoms of certain mental health conditions.²

Objectives: To assess the knowledge of family members of the patients undergoing ECT with selected demographical variables.To assess the level of attitude score of family members of the patients undergoing the ECT with selected demographic variables.

Materials and methods:Quantitative descriptive research design with simple random sampling technique was used which including (100) family members of the patients undergoing the ECT at SVIMS Tirupati. A self-structured question weir was used to find out knowledge and attitude. The data was analyzed by using descriptive and inferential statistics.

Result: the study results raveled that 19(19%) had inadequate knowledge, 54(54%) had moderate knowledge, 27(27%) had adequate knowledge on ECT and 53(53%) had positive attitude,35(35%) had ambivalent attitude, 12(12%) had negative attitude on ECT. The association was found between age, marital status, education, occupation, type of residence, relationship, previous family history of mental illness.

Conclusion: it is good to know that most of the patients and relatives are well informed about ECT, its side effects and drawbacks. This study should be treated more as a preliminary exploratory study and further refinement in methodology should help to draw more robust conclusions.

Key: electroconvulsive therapy (ECT).

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I. Introduction:

Electroconvulsive therapy is a safe and effective treatment, there is a widespread negative view of electroconvulsive therapy in public and professional circles. Decades of the clinical experience and research have result in continued improvements to the efficacy and safety of electroconvulsive therapy.¹

Electroconvulsive therapy (ECT) is a procedure done under general anesthesia in which small electric current passed through the brain, intentionally triggering a brief seizure, ECT seems to cause change in brain chemistry that can quickly reverse symptoms of certain mental health condition. Today ECT is the most often recommended treatment for the severe depression, and other mental disorders which is not responded to other treatment, and is also used in mania and catatonia. It was first introduced in 1938 and gained widespread use a form of treatment in the 1940s and 1950s. Despite evidence that electroconvulsive therapy (ECT) is effective and leads to shorter and less costly inpatients treatments , it is rarely used in first line of treatment and it is generally reserved for resistant cases of depression and other psychiatric disorders. Certain factors such as social stigma, doubts about its efficacy and safety, ambivalence among psychiatrists and doubts about its being a cost effective alternatives to antidepressant treatments might have limits the use of ECT in the management of depression.²

II. Review of Literature

Alaa El Din M, et al ,[2012] made an assessment of knowledge and attitude about ECT among caregiver of patients with different psychiatric disorder at psychiatric unit of Assiut University Hospital .The sample of the study were 450 caregiver of patients of whom 286 were man and 164 were women. The date was

collected by using a structured questionnaire made by modifying the Chavenetal questionnaire. The result of study showed that 50.4% of the participant had not received information about ECT. High percentages of participants had correct knowledge and positive attitude was the previous experience of their patients with ECT.³

Ahmed Mohamed Kamal [2011] aimed to assess the attitude of some psychiatric patients towards the ECT based on their knowledge and personal experience. The tool consisted of 31 items. Patients experience questionnaire translated into Arabic, and apply to 60 psychotic patients admitted in El-Minia psychiatric hospital who as been prescribed ECT administration. The result showed that 43(71.6%) had heard about ECT as a psychiatric treatment modality while 17 (28.4%) were unaware of this treatment modality. 5(8.3%) patients reported unpleasant feeling when seeing ECT staff. The most common side effects reported was memory impairment in 20 (33.3%) patients followed by headache in 8(13.3%) patients and nausea and vomiting in 3(5%) patients. It was found that about half of the patients had a trusted the efficacy of ECT as a treatment modality. Fifty nine (98.3%) patients considered as a safe treatment.⁴

Kheiri M. Saheb Zamani M. Jahantigh [2011] use a quasi-experimental design to study the Education effect on knowledge and attitude toward ECT among Iranian nurse and patient relative in a psychiatric hospital. In this research the pre and post self administered questionnaires were completed by 46 relative and 46 nurses before and after educating about ECT. The result of the study showed that nurses received a mean score of $X=34.97$ knowledge before education and $X=39.78$ after education ($t=2.02$, $p<0.05$) with a mean score of $X=33.39$ attitude before education and, $X=41.13$ after education ($t=-9.10$, $p<0.001$). The difference between the two means among two groups were found to be statistically significant which indicate that education given to nurse and relative about ECT increased their knowledge and improved their attitude toward ECT.⁵

III. Objectives

- To assess the knowledge of family members of the patients undergoing ECT with selected demographical variables.
- To assess the level of attitude score of family members of the patients undergoing the ECT with selected demographic variables.
- To find out the association between level of knowledge and attitude of the family members of the patients undergoing ECT with selected demographical variables.

IV. Methodology

The research approach used for this study was **Quantitative research approach** and research design used was **descriptive research design**. The study was conducted at the psychiatric unit, at SPMCH SVIMS, Tirupati. Simple random sampling technique was used and the samples were 100 family members of the patients undergoing ECT.

The data collection was validated and the reliability was determined by the test retest method with $r=0.8465$ and a pilot study was conducted, following which data collection was carried out. Data was interpreted by descriptive statistics. Analysis of the data was executed in terms of frequency, percentage distribution, and 't' test to assess the knowledge and attitude among the family members of the patients undergoing the ECT.

DATA ANALYSIS:

After giving the score for each family members of the patients the data collection were tabulated. Descriptive and informational statistics were used for analysis of data.

V. Results

ANNEXURE:-I

Table 1:- Frequency and percentage distribution of demographic variables among family members of the patients undergoing ECT.

(n=100)

S.NO	Demographic Variable	Frequency (f)	Percentage (%)
1.	AGE IN YEARS		
	18-25years	27	27.00
	26-35years	28	28.00
	36-45years	24	24.00
	46-55above	21	21.00
2	GENDER		
	Male	45	45.00
	Female	55	55.00

3	RELIGION		
	Hindu	39	39.00
	Christian	26	26.00
	Muslim	33	33.00
	Other	2	2.00
4	MARITAL STATUS		
	Unmarried	31	31.00
	Married	64	64.00
	Widow	5	5.00
5	EDUCATION STATUS		
	Primary education	32	32.00
	Secondary education	49	49.00
	Intermediate	10	10.00
	Degree and above	9	9.00
6	OCCUPATION		
	Un employee	40	40.00
	Employee	54	54.00
	Other	6	6.00
7	TYPE OF FAMILY		
	Nuclear	69	69.00
	Joint	31	31.00
8	RESIDENCE		
	Urban	58	58.00
	Rural	42	42.00
9	RELATIONSHIP		
	Mother	31	31.00
	Father	16	16.00
	Husband	17	17.00
	Sister	12	12.00
	Brother	16	16.00
	Wife	3	3.00
Son	5	5.00	
10	PREVIOUS HISTORY		
	Yes	65	65.00
	No	38	38.00

The study findings is the 100 family members of the patients undergoing the ECT, the knowledge levels, 54(54.0%) had moderate knowledge, 27 (27.0%) had adequate knowledge, 19(19.0%) had inadequate knowledge regarding the electroconvulsive therapy.

In relation to the attitudes levels, 53(53.0%) had positive attitude, 35(35.0%) had ambivalent attitude, and 12(12.0%) had negative attitude on electroconvulsive therapy.

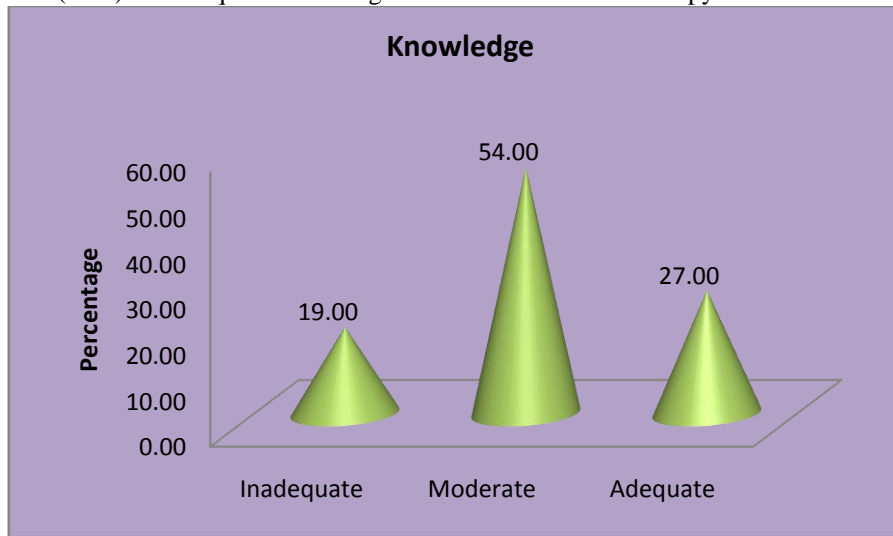
In relation to association of the socio- demographic variables with knowledge and attitude. The findings shows the level of knowledge of the family members of the patients is statistically significantly associated with the age, education, occupation, residence and previous history at $p < 0.01$ level. Marital status is statistically significantly at $p < 0.05$ level and remaining demographic variables are not significant.

The level of attitude of the family members of patients is statistically significantly associated with religion, residence and previous history at $p < 0.01$ level. Age, marital status were statistically significant at $p < 0.05$ level and remaining demographic variables are not significant.

Annexure-II

Fig.1 Level of knowledge:

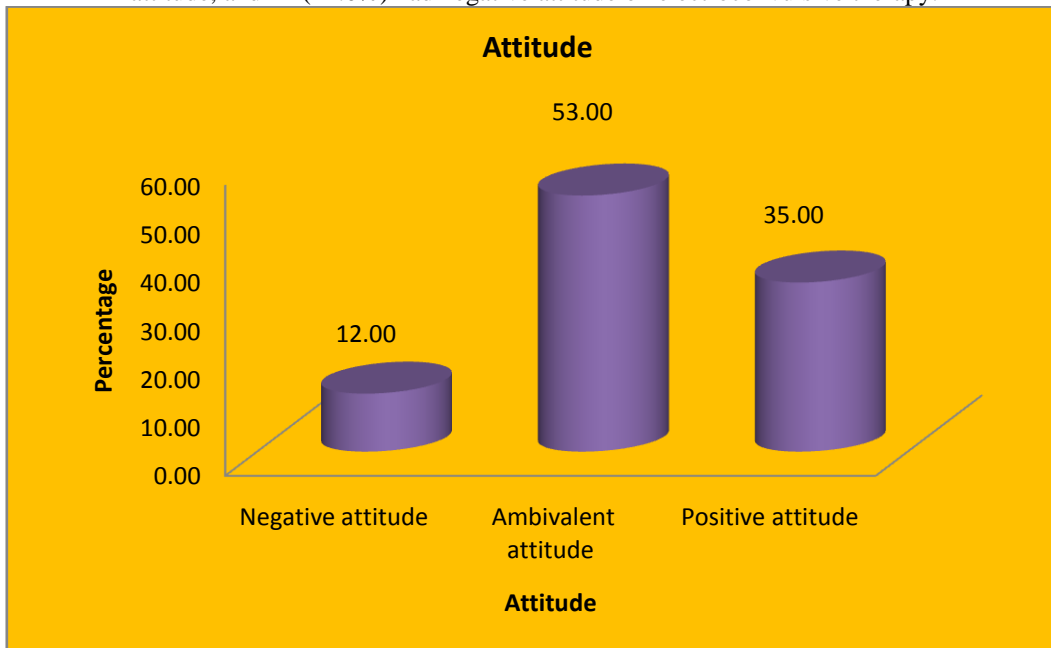
Fig.1: shows that among 100 family members 19 (19%) had inadequate knowledge, 54 (54%) had moderate knowledge and 27 (27%) had adequate knowledge on electro convulsive therapy.



Annexure-III

Fig.2 Level of attitude:

Fig.2: shows that among 100 family members 53(53.0%) had positive attitude, 35(35.0%) had ambivalent attitude, and 12(12.0%) had negative attitude on electroconvulsive therapy.



Annexure-IV

Table:2 To assess the level of knowledge of family members of the patients undergoing ECT with selected demographical variables.

LEVEL OF KNOWLEDGE

(n=100)

			Knowledge			Total	Chi square	P value
			Inadequate	Moderate	Adequate			
1 Age	18-25 years	N	4	11	12	27	15.356**	0.018
		%	4.00	11.00	12.00			
	26-35 years	N	7	4	17	28		
		%	7.00	4.00	17.00			
	36-45 years	N	7	4	13	24		

	46-55 years	%	7.00	4.00	13.00	24.00		
		N	9	0	12	21		
2 Gender	Male	%	9.00	0	12.00	21.00	0.656	0.720
		N	13	7	25	45		
		%	13.00	7.00	25.00	45.00		
	Female	N	14	12	29	55		
		%	14.00	12.00	29.00	55.00		
3 Religion	Hindu	N	8	9	22	39	10.298	0.113
		%	8.00	9.00	22.00	39.00		
	Muslim	N	15	4	14	33		
		%	15.00	4.00	14.00	33.00		
	Christian	N	4	6	16	26		
		%	4.00	6.00	16.00	26.00		
	Others	N	0	0	2	2		
		%	0	0	2.00	2.00		
4 Marital status	Unmarried	N	2	7	22	31	10.796*	0.029
		%	2.00	7.00	22.00	31.00		
	Married	N	23	12	29	64		
		%	23.00	12.00	29.00	64.00		
	Widow	N	2	0	3	5		
		%	2.00	0	3.00	5.00		
5 Education	Primary Education	N	0	9	23	32	23.157**	0.001
		%	0	9.00	23.00	32.00		
	Secondary Education	N	18	7	24	49		
		%	18.00	7.00	24.00	49.00		
	Intermediate	N	3	3	4	10		
		%	3.00	3.00	4.00	10.00		
	Degree and above	N	6	0	3	9		
		%	6.00	0	3.00	9.00		
6 Occupation	Unemployed	N	2	13	25	40	22.694**	0.000
		%	2.00	13.00	25.00	40.00		
	Employee	N	24	4	26	54		
		%	24.00	4.00	26.00	54.00		
	Others	N	1	2	3	6		
		%	1.00	2.00	3.00	6.00		
7 Type of family	Nuclear	N	20	12	37	69	0.634	0.728
		%	20.00	12.00	37.00	69.00		
	Joint	N	7	7	17	31		
		%	7.00	7.00	17.00	31.00		
8 Residence	Urban	N	22	5	31	58	13.949**	0.001
		%	22.00	5.00	31.00	58.00		
	Rural	N	5	14	23	42		
		%	5.00	14.00	23.00	42.00		
9 Relationship	Mother	N	6	10	15	31	9.495	0.660
		%	6.00	10.00	15.00	31.00		
	Father	N	4	2	10	16		
		%	4.00	2.00	10.00	16.00		
	Husband	N	4	2	11	17		
		%	4.00	2.00	11.00	17.00		
	Sister	N	3	2	7	12		
		%	3.00	2.00	7.00	12.00		
	Brother	N	7	1	8	16		
		%	7.00	1.00	8.00	16.00		
	Wife	N	1	1	1	3		
		%	1.00	1.00	1.00	3.00		
Son	N	2	1	2	5			
	%	2.00	1.00	2.00	5.00			
10 Previous history	Yes	N	23	7	32	62	11.437**	0.003
		%	23.00	7.00	32.00	62.00		
	No	N	4	12	22	38		
		%	4.00	12.00	22.00	38.00		

Note : ** = Significant at 0.01 level

* = Significant at 0.05 level

Table 2 shows the level of knowledge of the family members of the patients is statistically significant association with the age,(15.356) education,(23.157) occupation,(22.694) residence(13.949) and previous history(11.437) at $p < 0.01$ level. Marital status is statistically significant at $p < 0.05$ level and remaining other demographic variables are not significant.

Annexure-v

Table:3 To assess the level of attitude score of family members of the patients undergoing the ECT with selected demographic variables.

(n=100)

			Attitude			Total	Chi square	P value
			Positive Attitude	Ambivalent Attitude	Negative Attitude			
1 Age	18-25 years	N	14	6	7	27	12.880*	0.045
		%	14.00	6.00	7.00	27.00		
	26-35 years	N	13	11	4	28		
		%	13.00	11.00	4.00	28.00		
	36-45 years	N	16	7	1	24		
		%	16.00	7.00	1.00	24.00		
	46-55 years	N	10	11	0	21		
		%	10.00	11.00	0.00	21.00		
2 Gender	Male	N	21	20	4	45	3.364	0.186
		%	21.00	20.00	4.00	45.00		
	Female	N	32	15	8	55		
		%	32.00	15.00	8.00	55.00		
3 Religion	Hindu	N	22	10	7	39	16.690**	0.010
		%	22.00	10.00	7.00	39.00		
	Muslim	N	11	20	2	33		
		%	11.00	20.00	2.00	33.00		
	Christian	N	18	5	3	26		
		%	18.00	5.00	3.00	26.00		
	Others	N	2	0	0	2		
		%	2.00	0.00	0.00	2.00		
4 Marital status	Unmarried	N	22	4	5	31	10.373*	0.035
		%	22.00	4.00	5.00	31.00		
	Married	N	28	29	7	64		
		%	28.00	29.00	7.00	64.00		
	Widow	N	3	2	0	5		
		%	3.00	2.00	0.00	5.00		
5 Education	Primary education	N	22	5	5	32	9.635	0.141
		%	22.00	5.00	5.00	32.00		
	Secondary education	N	22	22	5	49		
		%	22.00	22.00	5.00	49.00		
	Intermediate	N	4	4	2	10		
		%	4.00	4.00	2.00	10.00		
	Degree & above	N	5	4	0	9		
		%	5.00	4.00	0.00	9.00		
6 Occupation	Unemployee	N	21	10	9	40	8.935	0.063
		%	21.00	10.00	9.00	40.00		
	Employee	N	29	23	2	54		
		%	29.00	23.00	2.00	54.00		
Others	N	3	2	1	6			
	%	3.00	2.00	1.00	6.00			
Total		N	53	35	12	100		
		%	53.00	35.00	12.00	100.00		
7 Type of family	Nuclear	N	34	27	8	69	1.698	0.428
		%	34.00	27.00	8.00	69.00		
	Joint family	N	19	8	4	31		
		%	19.00	8.00	4.00	31.00		
Total		N	53	35	12	100		
		%	53.00	35.00	12.00	100.00		
8 Residence	Urban	N	31	27	0	58	21.842**	0.000
		%	31.00	27.00	0.00	58.00		
	Rural	N	22	8	12	42		
		%	22.00	8.00	12.00	42.00		
9 Relationship	Mother	N	15	9	7	31	10.676	0.557
		%	15.00	9.00	7.00	31.00		
	Father	N	9	6	1	16		
		%	9.00	6.00	1.00	16.00		
	Husband	N	9	6	2	17		
		%	9.00	6.00	2.00	17.00		
	Sister	N	8	4	0	12		
		%	8.00	4.00	0.00	12.00		
	Brother	N	8	8	0	16		
		%	8.00	8.00	0.00	16.00		
Wife	N	1	1	1	3			
	%	1.00	1.00	1.00	3.00			

		%	1.00	1.00	1.00	3.00		
	Son	N	3	1	1	5		
		%	3.00	1.00	1.00	5.00		
10 Previous history	Yes	N	35	25	2	62	12.155**	0.000
		%	35.00	25.00	2.00	62.00		
	No	N	18	10	10	38		
		%	18.00	10.00	10.00	38.00		

Note: **= significant at p<0.01 level, *= significant at p<0.05 level

Table 5 shows the level of attitude of the family members of patients is statistically significant association with religion,(16.690) residence(21.842) and previous history(12.155) at p< 0.01 level. Age, marital status were statistically significant at p<0.05 level and remaining other demographic variables are not significant.

VI. Discussion

Electroconvulsive therapy (ECT) is a procedure done under general anesthesia in which small electric current passed through the brain, intentionally triggering a brief seizure, ECT 1seems to cause change in brain chemistry that can quickly reverse symptoms of certain mental health condition.

Electroconvulsive therapy (ECT) is one of the main therapeutic methods for patients with severe mental disorders, the effect of which is associated with convulsions. Annually, about 100000 patients in the USA and more then million patients throughout the world receive ECT. This therapeutic method is very useful and effective. The extensive applications of ECT, has been restricted for year due to lack of public acceptance secondary to continuous social, political, and legal attacks against this therapeutic methods.

In this study among 100 family members of the patients 27(27.0%) were in the age group of 18-25years, 28(28.0%) were in the age group of 26-35 years, 24(24.0%) were in the age group of 36-45 years, 21(21.0%) were in the age group of 46-55above, males were 45(45%) and female were 35(35.0%), majority of the family members 39(39.0%) belong to Hindu religion, 33(33.0%) were Muslims, and 26(26%) were Christians, and 2(2%) were other religions, majority of caregivers 64 (64.0%) were married, 31 (31.0%) were unmarried, and 5(5%) were widow,Regarding educational status 32(32.0%) had primary education, 46(46.0%) had secondary education, 10(10.0%) had intermediate, 9(9.0%) had degree and above, With regard to their occupation, 40(40.0%) were unemployed, 54(54.0%) were employee, 6(6.0%) were other works, 69(69.0%) of the caregivers belongs to nuclear family and 31(31.0%) belongs to joint family, majority of the 58(58.0%) were living in urban area and, 42(42.0%) were living in rural,majority of the caregiver 31(31.0%) were mother, 16(16.0%) were fathers, 17(17.0%) were husband, 12(12.0%) were sisters, 16(16.0%) were brothers, 3(3.0%) were wife, 5(5.0%) were sons, majority of the caregivers 65(65.0%) had family history of psychiatric illness and 38(38.0%) were not having history of psychiatric illness. 19 (19%) had inadequate knowledge, 54 (54%) had moderate knowledge and 27 (27%) had adequate knowledge on electro convulsive therapy.53(53.0%) had positive attitude, 35(35.0%) had ambivalent attitude, and 12(12.0%) had negative attitude on electroconvulsive therapy.the correlation of level of knowledge and attitude of family members of patients undergoing ECT with age, type of residence, previous family history of mental illness were statistically significant at p<0.01 level and marital status was statistically significant at p<0.05 level.

The study was supported by **Grover SK, [2011]** assess the experience of ECT improves awareness and perception of treatment among the relatives of patients knowledge and attitude toward ECT were assessed using specifically designed questionnaire among 206 relatives of patients who were undergoing psychiatric treatment but had never received ECT (non ECT group). The result were compared with those obtained among the 77 relatives of patients who had undergoing the treatment (ECT treated group). The result showed that the relative of the ECT treated group were more likely to have acquired their information about ECT from physician, where as relatives of the non-ECT group usually relied on the media for this purpose. The relatives who obtained their information from physicians were more aware and more positive about ECT the those who obtain and their information from the media. Knowledge about ECT was greater among relative of the ECT treated group then those of the non ECT group the relative of the ECT recipients had significant more positive attitudes towards the treatment, whereas the relative of the non ECT group were more often either ambivalent about ECT or critical of the treatment.⁶

MehreenArshadetal,[2007] evaluate awareness and perception of ECT among psychiatric patients with a cross sectional survey from teaching hospital in Karachi, Pakistan. 190 patients were interviewed and the data was collecting by using a structure questionnaire. The result showed that, of all patients 140 (75%) had heard about ECT and 50 (26%) were unaware of this treatment. Females were seen to be more unaware of this treatment modality (p=0.06) and their level of education had a significant impact to on the awareness of ECT (p=0.009). The most common source of awareness was electronic and print media (38%), followed by relatives (24%) and doctors (23%). Physical injuries (42%) and neurological (12%) and cognitive disturbances (11%)

were the commonly feared side effects. The most popular belief about ECT was that it was a treatment of last resort (565). Thirty nine percent thought that ECT could lead to severe mental and physical illness and 37% considered it inhumane. Patients willingness to receive ECT was dependent on what her or not they were convinced of its safety ($p=0.001$) and efficacy ($p=0.0001$).⁷

Virit O [2007], assessed patients and their relative attitude towards ECT in bipolar disorder. The perspectives of samples of 70 bipolar patients and their 70 relative were examined before ECT. The study showed that the majority of the patients and relatives believed they had not received adequate information about ECT, but they were satisfied with the treatment, found it beneficial, and maintained a positive attitude towards its use. The most commonly reported side effect was memory impairment. This is the first study focusing on bipolar patients and their relatives attitudes toward ECT in the literature.⁸

VII. Conclusion

The evidence from this investigation revealed that, knowledge and attitude of the family members of the patients undergoing the electroconvulsive therapy. The gained knowledge would help the family members to take adequate health care of their patients when planned for electroconvulsive therapy. It helps to develop a desirable attitude toward the electroconvulsive therapy, and help in early recovery of the patients and improve the quality life of the patients.

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