International Journal of Nursing Research (IJNR)

International Peer Reviewed Journal

Research article

Effectiveness of video assisted teaching on electro convulsive therapy in improving the knowledge and attitude of the public

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Abstract

Aim: The present study sought to determine the effectiveness of a video assisted teaching on ECT in improving the knowledge and attitude of public towards ECT. **Materials and methods:** The study was conducted among 70 people with 35 each in the control group and intervention group who were selected using convenient sampling technique. The study used a structured demographic proforma, knowledge questionnaire on ECT and attitude rating scale on ECT developed by the researcher to collect the data. **Results:** The study result showed that majority of the participants (78.57%) had average knowledge of ECT and 20% of participants had poor knowledge. Majority of the participants (61.43%) had a favourable attitude towards ECT, and 38.57% of participants had an unfavourable attitude. The median post- test knowledge score of the intervention group (15) was higher than the median post- test knowledge score (7) of the control group (z=6.00,p=0.001). In addition, the median post-test attitude score of the intervention group (46) was higher than the median post-test attitude score (41) of the control group (z=4.646, p=0.001). Thus, there was a significant improvement in the knowledge and attitude scores of participants after attending video assisted teaching. **Conclusion:** The study concluded that video-assisted teaching is effective in improving the knowledge and attitude of public towards ECT. It helps to remove the stigma associated with ECT, which is a negative consequence of negative media portrayal.

Keywords: Electro-Convulsive Therapy (ECT), Knowledge, Attitude, Video-assisted teaching

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1. Introduction

Electro Convulsive Therapy is described as induction of grand mal (generalized) seizures through the application of electrical current to the brain. It is a well-established, albeit controversial, psychiatric treatment. [1] The use of electricity for curing mental illness started in the 16th century when electric fish were used to treat headaches. Before the origin of ECT, camphor oil was used to induce a seizure in people with schizophrenia.

Access this article online	
Website:www.innovationalpublishers.com/journal/ijnr	e-ISSN: 2456-1320
DOI: 10.31690/ijnr/47	

How to cite this article: Cebi Paul, Tessy Treesa Jose, Besi Paul, Effectiveness of video assisted teaching on electro convulsive therapy in improving the knowledge and attitude of the public. Int J Nur Res. 2018; 4(3): 139-143.

In 1938, UgoCerletti and Lucio Bini, introduced ECT which is used for the treatment of a delusional, hallucinating, schizophrenic man. The man recovered fully after 11 treatments and subsequently, ECT became a widely accepted treatment for various mental illnesses. [2] Initial acceptance of this therapy was observed from 1940 to 1965, followed by a twenty years period in which ECT was considered objectionable by both the psychiatric profession and the lay public.[3] The period of non-acceptability coincided with the introduction of tricyclic and monoamine oxidase inhibitor antidepressant drugs and ended with the realization among many psychiatrists that the widely heralded replacement of ECT with these chemical agents had failed to materialize. Some individuals showed improvement with ECT after failing to respond to other forms of therapy. The second wave of acceptance began around 1975 and had been increasing to the present. It was still continued to be the most effective treatment for

many psychiatric illnesses including major depression, acute mania, and schizophrenia (particularly if it is accompanied by catatonic or affective symptomatology). [4, 5]

Despite its effectiveness, ECT continues to be the most stigmatized treatment available in psychiatry, resulting in restrictions on and reduced accessibility to a helpful and potentially life-saving treatment. Many factors contribute to this stigmatization. The distorted projection of ECT by the media, which depicts it as a harmful and unpleasant treatment strategy, where an electric shock is given to conscious patients under coercion, is one among such stigmatizing factors. In the 1975 film "One Flew Over the Cuckoo's Nest", Jack Nicholson portrayed a patient receiving ECT for the wrong purpose (coercion) and in the wrong fashion (without anesthesia or muscle relaxant).[6,7] Even when the public concern kept on increasing as a result of negative media portrayal, ECT continued its progress with significant medical advancements.

It requires rigorous efforts from the medical professionals to sensitize the general public towards the effectiveness of ECT. This will help them realize that ECT is not a harmful and unpleasant experience and is a clinically and ethically approved treatment modality. The media can play an important role in helping the professionals in their efforts by bringing to the people the real picture of ECT as an effective and harmless treatment modality. Education is the one and the only powerful tool to combat stigma and unawareness about ECT. A video-assisted teaching will provide a realistic picture of ECT and hence the public will get a firsthand experience of the procedure. This will help them to clarify their misconceptions and to have more acceptance of ECT. Therefore the present study is designed to improve the knowledge and attitude of the general public towards ECT through a video-assisted teaching.

Objectives

Objectives of the study were to

- Assess the knowledge of the public on ect.
- Assess the attitude of the public towards ect.
- Determine the effectiveness of video assisted teaching in improving the knowledge and attitude of public towards etc.

Hypothesis

The hypotheses of the study were

- H_1: There will be a significant difference between the median pre-test and posttest knowledge scores of the public receiving video assisted teaching.
- H_2: There will be a significant difference between the median post-test knowledge scores of intervention and control group.
- H_3: There will be a significant difference between the median pretest and post-test attitude scores of public receiving video assisted teaching.
- H_4: There will be a significant difference between the median post-test attitude scores of intervention and control group.

Research design

The study adopted a quasi -experimental pre-test post- test control group design.

Sample and sampling technique

The sample comprised of 70 people from KotePanchayath with 35 each in the control group and intervention group. Control group was taken from Indiranagar and the intervention group was taken from Palligude who were selected using convenient sampling technique.

Tools and techniques

The tools used in the study include demographic proforma, knowledge questionnaire on ECT and attitude rating scale on ECT which was prepared by the researcher. Reliability of the knowledge questionnaire on ECT was established using the split-half method. Spearman's Brown Prophesy was computed, and the reliability was found to be, r = 0.82. and the reliability was found to be, r = 0.86.

Pilot study

The pilot study was conducted in the first week of January 2011. It was conducted in a total of 10 people residing in Alevoor Panchayath with five each in the control group and the intervention group. Based on the pilot study findings, the sample size was determined. The study was found to be feasible.

Methods of data collection

The permission for conducting the study was obtained from the President of Kotte Panchayath. For the intervention group, after administering the demographic proforma, knowledge questionnaire and attitude rating scale, the video-assisted teaching was given to the participants and the post-test was conducted seven days after the intervention. For selecting the intervention group house to house, the survey was conducted, and about 10 to 15 participants who were staying in nearby houses were gathered together in a single house. For the control group, after conducting the pretest, the post-test was conducted seven days after the pre-test without giving the intervention. The selection of the control group samples was also done in the same way as that of the intervention group.

3. Results

Section I: Description of demographic variables

Thirteen (37.1%) participants in the intervention group were in the age group between 31–40 years and 15 (42.85%) in control group were in the age group between 20 – 30 years. The term majority, 27 (77.1%) participants in the intervention group and majority, 26 (74.3%) in the control group were females. Majority of the participants, 32 (91.4%) in the intervention group and 30 (85.7%) in control group were from Hindu religious background. Eleven participants (31.4%) in the intervention group and 12 (34.3%) in the control group had education up to middle school. A maximum number of participants (34, 97.1%) from the intervention and control group had no previous exposure to any awareness programmes on ECT. Majority 33 (94.3%) participants of both the intervention and control group did not have any family member with mental illness. Majority 30 (85.7%) participants in the intervention group and 33 (94.3%) in the control group had no family member who is a healthcare professional. Majority 18 (51.4%) participants in the intervention group were unemployed, and 21 (60%) in the control group were unskilled workers.

Section II: Public's knowledge of ECT

Majority of the participants (78.57%) had average knowledge of ECT, and 20% of participants had poor knowledge (Table 1).

Table No 1: Median, interquartile range, minimum, and the maximum knowledge score.

n=70

Variable	Median IQR		Minimum	Maximum
Knowledge	9	7-10	3	15

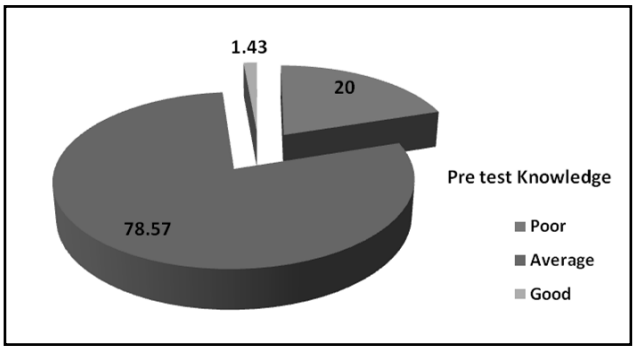

Fig. No 1: Pre-test knowledge on ECT

Section III: Attitude of public towards ECT

Majority of the participants (61.43%) had the favorable attitude towards ECT, and 38.57% of participants had an unfavorable attitude (Table 2).

Table No 2: Median, interquartile range, minimum, and the maximum attitude score.

n = 70

Variable	Median	IQR	Minimum	Maximum
Attitude	41	38-44	25	52

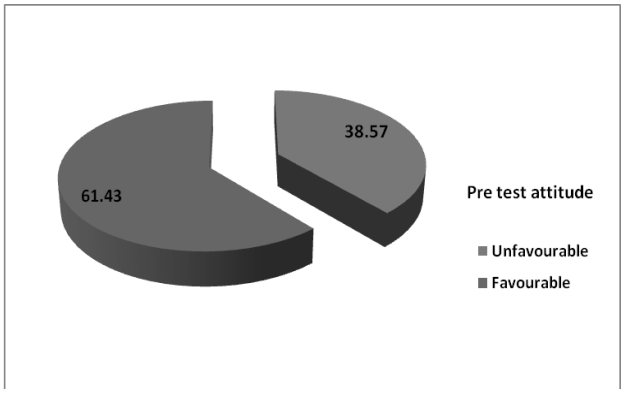

Fig no2: Pre-test attitude towards ECT

Section IV: Effectiveness of video-assisted teaching in improving the knowledge of public on ECT

Comparison of pre-test and post-test median knowledge scores in the intervention group.

The pre and the post-test knowledge scores were not following normal distribution hence Wilcoxon Signed-rank test was used for comparing the median pre-test and post - test knowledge scores of the intervention group.
In the intervention group, the median post-test knowledge (15) score was higher than the median pre-test knowledge (9) score. Z value computed (z=5.025,p=<.001) was significant for knowledge score with video-assisted teaching. (Table:3)

Table No 3: Median, interquartile range, z value and a p-value of pre-test and post-test knowledge scores in the intervention group.

n=35

Knowledge	Median	IQR	z value	p value
Pre test	9	7-10	5.052	0.001
Post test	15	10-15		

Comparison of median pretest and posttest knowledge scores in the control group.

The pre and the post-test knowledge scores were not following normal distribution hence Wilcoxon Signed-rank test was used for comparing the median pre-test and post - test knowledge scores of the control group.

For the control group, the middlemost 50% post-test knowledge (8) score was higher than the pre-test knowledge (7) score. Z value computed (z=0.106,p=0.942) was not significant for knowledge score without video assisted teaching. It indicates that there is no significant improvement in the knowledge scores of public without video assisted teaching (Table: 4)

Table No 4: Median, interquartile range, z value and p value of pre- test and post -test knowledge scores in control group.

n=35

Knowledge	Median	Iqr	Z value	P value
Pre test	8	7-9	0.106	0.942
Post test	7	7-10		

Comparison of median post-test knowledge scores of control and intervention group.

The post-test knowledge scores were not following normal distribution hence Mann Whitney test was used for comparing the median post-test knowledge scores of the control group and intervention group.
The median post -test knowledge score of the intervention group (15) was higher than the median post-test knowledge score (7) in the control group. Z value computed (z=6.00,p=0.001) was found significant, and hence the video-assisted teaching was effective in improving the knowledge of the public on ECT. (Table: 5)

Table No 5: Median, interquartile range, z value and the p-value of the post-test knowledge scores of control and intervention group.

n=70

Groups	Median	Iq	Z value	P value
Intervention	15	10-15	6.00	0.001
Control	7	7-10		

P<0.05

Section V: Effectiveness of video-assisted teaching in improving the attitude of public towards ECT

Comparison of median pretest and post- test attitude scores in intervention group

The pre and the post-test attitude scores were not following normal distribution hence Wilcoxon Signed-rank test was used for comparing the median pre-test and post-test attitude scores of the intervention group.
In the intervention group, the median post-test attitude score (46) was higher than the median pre-test attitude (40) score. z value computed (z=4.509,p=.000) was significant for attitude score with video-assisted teaching. Hence, the video-assisted teaching was effective in improving the attitude of the public towards ECT. (Table: 6)

Table no 6: Median, inter quartile range, z value and p value of pre- test and post- test attitude scores in intervention group.

n=35

Attitude	Median	IQR	z value	P value
Pre test	40	38-43	4.509	0.001
Post test	46	42-49		

Comparison of median pre -test and post -test attitude scores in control group.

The pre and the post-test attitude scores were not following normal distribution hence Wilcoxon Signed-rank test was used for comparing the median pre-test and post-test attitude scores of the control group.
In the control group, the median post-test attitude (41) was equal to the median pre-test attitude (41) score. Z value computed (z=1.159,p=0.254) was not significant for attitude scores without video assisted teaching. It indicates that there was no improvement in the attitude of the public towards ECT. (Table:7)

Table no 7: Median, inter quartile range, z value and p value of pre -test and post -test attitude scores in control group.

n = 35

Attitude	Median	Iq	z value	P value
Pre test	41	38-45	0.106	0.942
Post test	41	38-42		

Comparison of median post- test attitude scores of intervention and control group

The post-test attitude scores were not following normal distribution hence Wilcoxon Signed-rank test was used for comparing the median post-test attitude scores of intervention group and control group.
The median post-test attitude score of the intervention group (46) was higher than the median post-test attitude score (41) of the control group. Z value computed (z=4.646,p=0.001) was found significant, and hence the video-assisted teaching is effective in improving the attitude of public towards ECT. (Table:8)

Table no 8: Median, inter quartile range, z value and p value of post -test attitude scores in intervention and control group.

n = 35+35=70

Groups	Median	Iq	Z value	P value
Intervention	46	42-49	4.646	0.001
Control	41	38-42		

(p<0.05)

4. Discussion

The study concluded that the majority of the participants had average to poor knowledge and many had unfavourable attitude towards ECT. This is supported by another study conducted in Western Australia to assess the public's attitudes toward and knowledge of electroconvulsive therapy. A total of 379 participants responded from three age groups: (a) under 19 years old; (b) 19 to 64 years old; and (c) over 64 years old. The study results showed that more than 85% of the sample indicated that they had heard of ECT or 'shock treatment'. Among these, television was cited by nearly half (45.6%). Movie/film (42%), books (24.5%) and newspapers (24.5%) were also frequently reported as sources of ECT information. About one-quarter to one-half of respondents did not know the correct answers to these knowledge items. 34% of the sample indicated negative views about ECT. Only 17%of the participants believed that ECT may help. 8% preferred ECT only as a last resort. 10% of the respondents preferred other alternative treatments than ECT. Participants were generally opposed to the use of ECT on individuals with psychosocial issues (slightly more than half of the respondents), on children and on involuntary patients (70%). No significant relationship was found between ECT knowledge and attitudes towards ECT.[8]

The study also identified a significant difference in the knowledge scores and attitude scores of the public after receiving the video-assisted teaching. This is supported by a study conducted in Manipal by Joseph S to determine the effectiveness of a self -instructional module on ECT in improving the knowledge and attitude towards ECT among the relatives of mentally ill patients receiving ECT. The study results showed that there was a significant increase in the mean post-test knowledge scores (9.8) when compared to the pre-test knowledge scores (6.2). The study result also showed a significant improvement in the attitude. [9]

There was a significant improvement in the attitude scores towards ECT after attending video assisted teaching in the present study. This is also supported by a study conducted to assess the ability of surrogates to correctly predict a subject's preference for treatment with ECT both before and after viewing an educational video. The effect of the educational video on attitudes to ECT was also examined. Twenty-five subject-surrogate pairs were recruited from relatives of psychiatric patients. The subjects' treatment preferences regarding the ECT and the surrogates' predictions of these preferences were assessed by means of two hypothetical scenarios before and after viewing an educational video. All participants completed an attitude to ECT questionnaire (Questionnaire on Attitudes and Knowledge of ECT) before and after the video. Subject-surrogate concordance was high, 84% for scenario one (treatment-resistant depression) before and after the video. In scenario two (life-threatening depression), concordance rose from 80% before the video to 96% after the video. The greatest increase in concordance occurred in pairs in which neither subject nor surrogate had previous experience of ECT. Attitude scores were significantly more positive after the video. Surrogates were able to predict the subjects' preference for ECT with high levels of accuracy. [10]

Conclusion

Hence, the video-assisted teaching is effective in improving the knowledge and attitude of public towards ECT. It helps to destigmatize ECT, which is depicted wrongly by media.

References

[1] Stuart W G, Laria T M, Principles and practices of psychiatric nursing.8th edition. Philadelphia : Mosby publications;2005.

[2] Townsned C M. psychiatric mental health nursing. 5th edition. New Delhi: J P Publishers;2009.

[3] Sadock BJ, Sadock VA. Kaplan & Sadock's concise textbook of clinical psychiatry. Lippincott Williams & Wilkins; 2008.

[4] Chanpattana W. Maintenance ECT in treatment-resistant schizophrenia. Journal of the Medical Association of Thailand= Chotmaihet thangphaet. 2000 Jun; 83(6):657-62.

[5] Gagné Jr GG, Furman MJ, Carpenter LL, Price LH. Efficacy of continuation ECT and antidepressant drugs compared to long-term antidepressants alone in depressed patients. American Journal of Psychiatry. 2000 Dec 1; 157(12):1960-5.

[6] Niraj A, Vyas JN. Text book of postgraduate psychiatry. New Delhi: J P Publishers;2008.

[7] Okasha T A. Electro-Convulsive Therapy (ECT): an Egyptian perspective. S Afr Psychiatry Rev 2007;10:22-24.

[8] Santa Maria MP, Baumeister AA, Gouvier WD. Public knowledge about electroconvulsive therapy: a demographically stratified investigation. International Journal of Rehabilitation and Health. 1998 Apr 1; 4(2):111-6.

[9] Joseph S. Study to determine the effectiveness of self instructional module in improving the knowledge and attitude of relatives of patients with mental illness in selected hospitals of Karnataka [Mastersdegree theses]. Department of Psychiatric Nursing: Manipal University; July 2004.

[10] Pieroni S, McShane R. Effect of an educational video on the accuracy of surrogate decisions: the case of electroconvulsive therapy. The journal of ECT. 2010 Sep 1; 26(3):208-12.