Patient experience of electroconvulsive therapy (ECT): a systematic review

Cheshire and Wirral Partnership NHS Foundation Trust

Corresponding author: jonathon.whyler@nhs.net

- ¹ Health Education England North West, Manchester, United Kingdom
- ² Cheshire and Wirral Partnership NHS Foundation Trust, Chester, United Kingdom

Jonathon Whyler^{1,2}, Kirsty Bradley², Hazel Chapman³, Elizabeth Shaw², Amrith Shetty²

³ University of Chester, Chester, United Kingdom

Background and Aims

In the United Kingdom, electroconvulsive therapy (ECT) can be administered according to NICE guidelines for depression, catatonia or severe/prolonged mania (NICE, 2003; NICE, 2009).

ECT was first used in the United Kingdom in 1939 (Kalinowsky, 1939), and its application and practice has been developed and modernised since.

There is a considerable body of research into the efficacy of ECT, and the Royal College of Psychiatrists report that in 2018-2019, 68% of patients were much or very much improved following ECT (RCPsych, 2020).

It is known however that both public perception and media portrayal of ECT is generally negative (Griffiths and O'Neill-Kerr, 2019)

Understanding patient experience of ECT is therefore important to efforts to guide clinical practice, and improve overall patient satisfaction.

A review by Chakrabarti, Grover and Rajagopal (2010) examined 75 studies on the knowledge, experience and attitudes of patients towards ECT and concluded that improvements in the practice of ECT and patient satisfaction were required.

This systematic review analysed data from published literature, to determine patient experience of ECT. The aim was to appraise the research on patient experience of ECT which had been published since 2010.

We conducted a thematic analysis of the results in order to improve our understanding of patient experience and inform future research.

Method

EMBASE (which incorporates MEDLINE and PUBMED), PsychINFO, Cochrane, CINHL and SocIndex were searched to identify relevant studies since 2010.

Studies were included if they were related to patient experience of ECT, peer reviewed, and in English. No exclusion criteria were used to limit any specific methodology or design.

Findings were analysed using a relevant CASP research tool (dependent on study design) to categorise papers as *good*, *fair* or *poor*, providing a comparable rating to aid further discussion and analysis.

Common themes were then identified to provide a narrative description and analysis of the available evidence

Results

Information provision

Rajagopal, Chakrabarti and Grover

(2013) showed that under 50% of

patients included in a cross sectiona

study felt satisfied with information

provision. Patients felt they had not

received adequate information (Mitchell,

Hassan and Ghaziuddin, 2018; Bloch et

al., 2018). Patients and relatives

received information about the benefits

of ECT, but not the technical delivery or

adverse effects (Li et al., 2015)

2,424 papers were identified, from which 29 were included in the final analysis.

Following group analysis, seven main themes appeared throughout the studies, which are shown in Figure 1.

Loss of control/ autonomy

Many patients felt poorly informed about ECT and consent (Rajagopal et al., 2012), or felt that they had to consent (Mitchell, Hassan and Ghaziuddin, 2018; Chakrabarti, Grover and Rajagopal, 2010). Patients believed that ECT would be given anyway, even if they did not consent Chakrabarti, Grover and Rajagopal, 2010). Leslie van Daalen-Smith, 2011 found that women were vulnerable to being complicit in treatment or decision, or having it against their will.

Fear of ECT

One patient described "unmodified ECT as the equivalent degree of fear to an execution" (Lim and Galletly, 2019). Rajagopal, Chakrabarti and Grover, (2013) showed that 33% of relatives and patients feared ECT. Management of phobia and anxiety was suggested with CBT and medication (Wo, Guyitt and Owen, 2015). Unmodified ECT was associated with fear and anxiety (Gallegos et al., 2012)

ECT is tolerable / effective

Studies reported significant improvement in symptoms (Brown et al., 2018), and that ECT was a legitimate and effective treatment (Sienaert et al., 2010). James et al. (2010) showed that patients reported a considerable degree of satisfaction after ultra-brief ECT. Krech et al. (2017) however found that tolerability of ECT did not vary significantly over a course.

Discussion

This review highlights patient experiences of ECT through the identification of seven themes. The findings suggest that patient experience of ECT includes themes of fear, consent, decision making and autonomy.

Patients were found to experience fear and anxiety in regards to the procedure, and studies described patients being poorly informed about ECT.

Issues around the consent process were highlighted including those in which patients did not feel they had a choice with regards to treatment. ECT was associated with memory loss and cognitive impairment which were captured in patient experience following treatment.

In many studies however, ECT was also found to be a tolerable and effective treatment with an improvement in symptoms and patient satisfaction reported. The experience of ECT was affected by knowledge and information provision; and high standards of service provision, including supportive nursing care, were identified as improving overall patient experience.

Limitations

Our study relies on secondary analysis and therefore is largely reliant on the methodology and conduct of other primary and secondary studies.

While a small number (n=29) of articles were identified for inclusion in the final data analysis, this represents the limited quantity of literature available on the topic.

Summary

ECT is a recognised treatment for life-threatening mental health conditions such as depression, catatonia and mania, and by understanding and becoming aware of patient experience and perspective, this can guide new ways of approaching clinical practice of ECT that are patient-centred and promote recovery.

In particular, issues identified regarding information provision and consent, and loss of control and autonomy are key areas that warrant further research, in order to improve both clinical practice and patient experience.

Patient experience of ECT

High standards improve patient experience

Patient satisfaction should be used as an indicator of quality of care (Selva-Sevilla, Romero-Rodenas and Lucas-Perez-Romero, 2016). Navidian, Ebrahimi and Keykha (2015) completed an RCT looking at the impact of supportive nursing care on patient satisfaction. The intervention group included supportive care in informational, emotional and physical aspects of treatment, associated with high satisfaction with ECT.

Public perception of ECT

Public portrayal of ECT is mainly negative, due to media (Griffiths and O'Neill-Kerr, 2019). Patients felt that the stigma of ECT negatively affected them, and meant they needed to develop "new identities" and not disclose they had ECT to others (Kring, Bergholt and Midtgaard, 2018). One patient (Piltch, 2016) was not offered ECT and described having to fight to receive it after having many failed medications.

Memory loss / cognitive impairment

Studies reported memory loss and confusion as side effects of ECT (Flamarique et al., 2015; Sienaert et al., 2010) as well as long lasting cognitive impairment and functional disability following treatment (Leslie van Daalen-Smith, 2011). One patient described her memory as being permanently destroyed or weakened (Lim and Galletly, 2019).

Figure 1: Themes identified within the patient experience of ECT

References

Aoki, Y., Yamaguchi, S., Ando, S., Sasaki, N., Bernick, P.J. and Akiyama, T. (2016). The experience of electroconvulsive therapy and its impact on associated stigma: A meta-analysis. International Journal of Social Psychiatry, 62(8), pp.708–718.

Bloch, Y. Linder, M. Kalman, N. Koubi, M. Gal, G. Nitsan, H. Maoz, H. and Lurie, I. (2018). Adult and Adolescent Patient Evaluations of Electroconvulsive Therapy in

Bloch, Y., Linder, M., Kalman, N., Koubi, M., Gal, G., Nitsan, U., Maoz, H. and Lurie, I. (2018). Adult and Adolescent Patient Evaluations of Electroconvulsive Therapy in Comparison to Other Therapeutic Modalities. The Journal of ECT, 34(1), pp.45–49.

Brown, S.K., Nowlin, R.B., Sartorelli, R., Smith, J. and Johnson, K. (2018). Patient Experience of Electroconvulsive Therapy. The Journal of ECT, 34(4), pp.240–246.

Chakrabarti, S., Grover, S. and Rajagopal, R. (2010). Electroconvulsive therapy: A review of knowledge, experience and attitudes of patients concerning the treatment. The World Journal of Biological Psychiatry, 11(3), pp.525–537.

Fisher, P. (2012). Psychological factors related to the experience of and reaction to electroconvulsive therapy. Journal of Mental Health, 21(6), pp.589–599.

Fisher, P., Johnstone, L. and Williamson, K. (2011). Patients' perceptions of the process of consenting to electroconvulsive therapy. Journal of Mental Health, 20(4), pp.347–354.

Flamarique, I., Castro-Fornieles, J., de la Serna, E., Pons, A., Bernardo, M. and Baeza, I. (2015). Patients' Opinions About Electroconvulsive Therapy: What Do Adolescents w Schizophrenia Spectrum Disorders Think? Journal of Child and Adolescent Psychopharmacology, 25(8), pp.641–648.

Gallegos, J., Vaidva, P., D'Agati, D., Javaram, G., Nguyen, T., Tripathi, A., Trivedi, J.K., and Reti, I.M. (2012). Decreasing Adverse Outcomes of Unmodified Electroconvulsive

Gallegos, J., Vaidya, P., D'Agati, D., Jayaram, G., Nguyen, T., Tripathi, A., Trivedi, J.K. and Reti, I.M. (2012). Decreasing Adverse Outcomes of Unmodified Electroconvulsive Therapy. The Journal of ECT, 28(2), pp.77–81.

Griffiths, C. and O'Neill-Kerr, A. (2019). Patients', Carers', and the Public's Perspectives on Electroconvulsive Therapy. Frontiers in Psychiatry, 10. Guruvaiah, L., Veerasamy, K., Naveed, M., Kudlur, S., Chaudary, F. and Paraiso, A. (2017). Patients' experiences of and attitudes towards ECT. Progress in Neurology and Psychiatry, 21(2), pp.16–21.

James, B.O., Morakinyo, O., Lawani, A.O., Omoaregba, J.O. and Olotu, O.S. (2010). Unmodified Electroconvulsive Therapy. The Journal of ECT, 26(3), pp.218–222. Kalinowsky, L. (1939). Electric-convulsion therapy in schizophrenia. The Lancet, 234(6067), pp.1232–1233.

Knight, F., Ridge, D., McShane, R., Ryan, S. and Griffith, L. (2017). Care, Control, and the Electroconvulsive Therapy Ritual: Making Sense of Polarized Patient Narratives.

Qualitative Health Research, 27(11), pp.1675–1685.

Krech, L., Belz, M., Besse, M., Methfessel, I., Wedekind, D. and Zilles, D. (2017). Influence of depressed patients' expectations prior to electroconvulsive therapy on its effectiveness and tolerability (Exp-ECT): a prospective study. European Archives of Psychiatry and Clinical Neuroscience, 268(8), pp.809–817.

Kring, I.S., Bergholt, M.D. and Midtgaard, J. (2018). The perspectives of former recipients and experts on stigmatization related to electroconvulsive therapy in Denmark: A focus

group study. Journal of psychiatric and mental health nursing, 25(5-6), pp.358–367.

Leslie van Daalen-Smith, C. (2011). Waiting for Oblivion: Women's Experiences with Electroshock. Issues in Mental Health Nursing, 32(7), pp.457–472.

Li, Y., An, F.-R., Zhu, H., Chiu, H.F.K., Ungvari, G.S., H. Ng, C., Lai, K.Y.C. and Xiang, Y.-T. (2015). Knowledge and Attitudes of Patients and Their Relatives Toward Electroconvulsive Therapy in China. Perspectives in Psychiatric Care, 52(4), pp.248–253.

Lim, X. and Galletly, C. (2019). 'To suit the occasion, I wore my schizophrenic fancy dress' – the life of Janet Frame. Australasian Psychiatry, 27(5), pp.469–471.

Maguire, S., M, R.S. and Convery, P. (2016). Electroconvulsive TherapyWhat Do Patients Think Of Their Treatment? The Ulster medical journal, 85(3), pp.182–186.

Mitchell, S., Hassan, E. and Ghaziuddin, N. (2018). A Follow-up Study of Electroconvulsive Therapy in Children and Adolescents. The Journal of ECT, 34(1), pp.40–44.

Navidian, A., Ebrahimi, H. and Keykha, R. (2015). Supportive Nursing Care and Satisfaction of Patients Receiving Electroconvulsive Therapy: A Randomized Controlled Clinical Trial. Iranian Red Crescent Medical Journal, 17(9).

NICE (2003). Overview | Guidance on the use of electroconvulsive therapy | Guidance | NICE. [online] Nice.org.uk. Available at: https://www.nice.org.uk/guidance/ta59.

NICE (2009). Overview | Depression in adults: recognition and management | Guidance | NICE. [online] Nice.org.uk. Available at: https://www.nice.org.uk/guidance/cg90. Obbels, J., Verwijk, E., Bouckaert, F. and Sienaert, P. (2017). ECT-Related Anxiety. The Journal of ECT, 33(4), pp.229–236.

Piltch, C.A. (2016). The role of self-determination in mental health recovery. Psychiatric Rehabilitation Journal, 39(1), pp.77–80.

Rajagopal, R., Chakrabarti, S. and Grover, S. (2013). Satisfaction With Electroconvulsive Therapy Among Patients and Their Relatives. The Journal of ECT, 29(4), pp.283–290.

Rajagopal, R., Chakrabarti, S., Grover, S. and Khehra, N. (2012). Knowledge, experience & attitudes concerning electroconvulsive therapy among patients & their relatives. Indian

J Med Res, 135(2), pp.201–10.
RCPsych (2020). Electroconvulsive Therapy (ECT) | Royal College of Psychiatrists. Available at: https://www.rcpsych.ac.uk/mental-health/treatments-and-wellbeing/ect.
Selva-Sevilla, C., Romero-Rodenas, P. and Lucas-Perez-Romero, M. (2016). How Can We Improve Patient Satisfaction As a Consumer of Public Health Services? The Case of

Psychiatric Patients Undergoing Electroconvulsive Therapy. Frontiers in Psychology, 7. Sienaert, P.A., Vansteelandt, K., Demyttenaere, K. and Peuskens, J. (2010). Predictors of Patient Satisfaction After Ultrabrief Bifrontal and Unilateral Electroconvulsive Therapies for Major Depression. The Journal of ECT, 26(1), pp.55–59.

Wo, N.K.H., Guyitt, B. and Owen, R. (2015). Cognitive Behavioral Therapy as a Treatment for Electroconvulsive Therapy Phobia. The Journal of ECT, 31(4), pp.273–276. Zhang, Q.-E., Zhou, F.-C., Zhang, L., Ng, C.H., Ungvari, G.S., Wang, G. and Xiang, Y.-T. (2018). Knowledge and attitudes of older psychiatric patients and their caregivers towards electroconvulsive therapy. Psychogeriatrics, 18(5), pp.343–350.

