Sarcouncil Journal of Medical Series

ISSN(Online): 2945-3550

Volume- 04| Issue- 08| 2025

Research Article **Received:** 30-06-2025 | **Accepted:** 22-07-2025 | **Published:** 10-08-2025

Evaluation of Knowledge of Caregivers on The Efficacy of The Electroconvulsive Therapy on Clients With Mental Health Disorders in Neuropsychiatric Hospital, Aro, Ogun State

OLUBIYI Roseline Ngozi and SANYAOLU Eniola Grace
College of Nursing, Chrisland University, Abeokuta, Ogun State.

Abstract: Mental illness is on the rise globally, with Electroconvulsive Therapy (ECT) being one of the treatment options used to address certain mental health conditions, such as severe depression, mania and catatonia that are resistant to medications. Several literature were reviewed to explore the perception of caregivers of clients with mental health disorders on the efficacy of ECT in Neuropsychiatric Hospital, Aro.. A descriptive cross-sectional and structured questionnaires were adopted for the conduction of information from 200 selected participants to include both informal and formal caregivers and clients with mental health disorder in Neuropsychiatric Hospital, Aro. using face to face method of administration of the research instruments who were selected using a random sampling. Chi-square, Multiple Linear Regression, and Pearson's correlation coefficient were adopted for the quantitative data collected from the participants on the field. The findings shows that there was a significant association \between caregivers' knowledge and their perceived efficacy and safety (p< .001). The study concludes that while ECT is perceived as beneficial by many caregivers. Therefore, there is a need for better educational sources and support systems to address their concerns. Other recommendations include increasing caregiver involvement in treatment decisions, providing comprehensive information about its benefits and risks and regular follow-up sessions.

Keywords: Electroconvulsive Therapy, Caregivers, Mental health disorders, Efficacy.

INTRODUCTION

Evidence gathered from national and international publications indicated that mental health disorder is a global concerns which poses as a significant challenge to individuals and families mental well-being of the affected individuals In another dimension, impacted the lives of their caregivers globally. The above statement was validated by Substance Abuse and Mental Health Services Administration (SAMHSA, 2023), where the research conducted reveals that the treatment landscape for mental health conditions has evolved over the years, incorporating various therapeutic modalities aimed at improving the quality of life for those suffering from these disorders. In addition, Mankad (2019) submitted that one of such intervention that has sparked both interest and controversy is Electroconvulsive Therapy (ECT) which involves the administration of controlled electrical currents to the brain, inducing a seizure under carefully monitored conditions.

Historically, there are severe negating factors limiting the knowledge and adoption of ECT which are mainly stigmatization and misconceptions. But Espinoza and Kellner (2022),explain that extant contemporary research conducted suggests that ECT is a highly effective and safe treatment option for certain mental health disorder such as severe depression, bipolar disorder, and some forms of schizophrenia. In recent years, modern hospital has duly incorporated ECT into its treatment protocols, offering it as a therapeutic option for individuals resistant to other forms of treatment or those requiring rapid stabilization. Despite the growing body of evidence supporting the efficacy of ECT, the perceptions of caregivers, who play a pivotal role in the well-being and decision-making process for the individuals undergoing treatment, remain relatively unexplored For Deng *et al*.,(2023). caregivers' attitudes, beliefs, and understanding of ECT can significantly influence the acceptance and adherence to this treatment modality. Moreso, the understanding and acceptance of ECT as a treatment among patients with psychiatric disorders who had ECT is important to investigate patient and caregiver attitudes and knowledge regarding the intervention

Griffiths and O'Neill-Kerr, 2019) opines that the knowledge and acceptance of ECT depend on many factors: such as what they read, see, and hear through the media, social media or the knowledge gained through friends and family if they have had experience of ECT. Studies have confirmed that there are significant relationship with patient and carer perceptions of ECT which are influenced by media portrayal (Cheung, Baker & Tabraham, 2022; Cipriam, Furukawa & Salanti, 2018; Glover, Sahoo, Rabha & Koirala, 2019, Jones, Smith & Johnson, 2018).However, patients' perspectives are not passively generated; patients are actively

***Corresponding Author:** OLUBIYI Roseline Ngozi

DOI- https://doi.org/10.5281/zenodo.16790130

making sense of their experience before, during, and after treatment. Patient's perspective or knowledge of ECT is more complex than simply its efficacy in reducing the symptoms of depression; perspectives encompass fears, stress before and during treatment, possible side effects (especially memory loss, confusion, loss of cognitive ability), stigma, and regaining a sense of self and reality. Patients' perspectives have been the subject of several research studies (Griffiths and O'Neill-Kerr, 2019). This can as well influence the perceptions of the caregivers The aim and objectives of this study is to inquire into the perceptions of caregivers of clients with mental health disorders who have undergone Electroconvulsive Therapy at Neuropsychiatric Hospital, Aro.

In Nigeria, the mental health disorders are a growing concern with an estimated 20% of the population, around 40 million people affected (WHO, 2023). Despite the availability of various treatment options, including psychotherapy and medication, ECT remains a controversial but effective treatment option for clients with mental health disorders. However, there is limited research on the perception of caregivers of clients with mental health disorders on the efficacy of ECT in Neuropsychiatric Hospital. Likewise, the National Health Service (NHS, 2022) asserted that the information for patients undergoing ECT consists of a science-based leaflet from the National Institute for Health and Care Excellence (NICE), despite research suggesting that healthcare education may be better received alongside contextual and emotive evidence.In addition, Cheung, Baker and Tabraham,(2022) explained that in Gold Coast Health in Australia implemented these principles, focusing on adding contextual evidence for the benefits of ECT, but there is no empirical evidence as to whether these approaches improved perceptions of ECT .

The knowledge of caregivers on ECT plays a crucial role in the overall well-being and treatment outcomes of individuals with mental health disorders. Mental health disorder problem may arise due to lack of comprehensive research on the specific factors influencing caregivers' perceptions of ECT in the context of Neuropsychiatric Hospital, Aro. Understanding these factors is essential for optimizing the support systems and informational resources provided to caregivers, ultimately contributing to better-informed decision-making processes and improved overall well-being for both caregivers and their clients..

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Health Belief Model was adopted for the justification of the inquiry titled the knowledge of caregivers on the efficacy of the use of ECT for the treatment of clients with mental health disorders at Neuropsychiatric Hospital, Aro, Ogun State, Nigeria. Health Belief Model (HBM) was developed by social psychologists namely Hochbaum, Rosenstock, and Kegels in the 1950. The model is particularly relevant in the context of mental health treatment perceptions and decisions. Health belief experts explains that belief and attitude of people determine their health related behaviour. They further stressed that an individuals will act in order to avoid a disease or health problem For example, if he or she believes that he or she is personally vulnerable to it; that the recurrence of the illness that faces at least moderate seriousness on some components of his/her to life and that taking certain behaviuor would in definitely be useful by minimizing its vulnerability to the illness or, if the illness occurs, by minimizing its seriousness. It is also based on the belief that it would not entail surmounting significant emotional hindrances such as cost, convenience, pain and shame. They lay emphasis on four (4) major components such as

Perceived susceptibility:
The HBM explains that every individuals or person has his/her own orientation of the tendency of experiencing health challenge that would seriously affect his/her health. People differ markedly in their orientation of vulnerability to a health challenge. Those who have the orientation of contacting a disease with low end of the high denies the likelihood of infecting viral serious health condition or disease. Such persons will be less likely to spend on their health care even if they have the wherewithal to do so in terms of cost.

Perceived seriousness/Perceived severity:
They also explains that the beliefs of an individual holds regarding the effects certain health situation would have on his/her condition of health. The identified impacts can be seen from the perspective of the problems that a disease will occur. Examples are discomfort and pain, loss of work-time, economic burdens, difficulties with family members and links as well as vulnerability to future condition. Individuals who perceive a very serious effect may be moved to seek medical care

Publisher: SARC Publisher

because this is one of the health conditions that are highly stigmatized.

Perceived benefits of taking action:
Action taking disallows the seriousness of an health condition or helps in tackling an illness and this is followed by an individual's acceptance of the susceptibility of a disease and recognising it as serious. The attention of taking action that an individual decides will be facilitated by the orientations concerning the action. Hence, if an individual perceives that it is beneficial to use hospital care or community-based care for health condition, he or she will do so, and will not, .

Perceived barriers to taking action:
In line with the above, people might decide not take action despite the fact that a person might believe that the advantages to decide in taking an action is potent. It might be on account of several hindrances which may include the anxiety to recover fully. It may be due to hindrances linked to the features of a treatment which may be easy; it may be costly, non-pleasant, and painful. .

The model also consists of **cues to action**, for example, having a reminder note for oneself, campaigning from media or sick relation with similar disease as significant factors in eliciting or maintaining attempt of behaviour. The construct of self-confidence, or an individual **self-efficacy** in his or her capacity to graciously conclude a task, has been added to the model, allowing it to explain for their normal behaviour, such as a physically exercise and active way of life. The HBM depends mainly on the subjective explanations and meanings that individuals give to signs and ill-health. The caregivers' confidence in their ability to support and manage the ECT process for their clients includes their perceived ability to handle potential challenges and contribute to the positive outcomes of the therapy. This includes external factors or events that prompt caregivers to consider ECT Therapy for their clients. This could include recommendations from mental health professionals, witnessing a deterioration in the client's condition, or information from support groups.

In relation to the study, the HBM provides a structured framework for assessing caregivers' knowledge regarding the efficacy of Electroconvulsive Therapy. By exploring key constructs such as perceived benefits, barriers, and cues to action, the study can gain insights into the factors influencing caregiver decision-making. The HBM can inform the development of targeted interventions to address specific barriers identified by caregivers. The fundamental elements of HBM is supported by extant scholars for example, Biliaminu and Aina, (2020) asserted that mental Illness is maladaptive responses to stressors from the internal or external environment, evidenced by thoughts, feelings and behaviors that are incongruent with the local and cultural norms and interfere with the individual's social, occupational or physical functioning. Likewise World Health Organzation (2016). stated that mental health disorders are highly prevalent worldwide. According to the World Health Organization (WHO, 2019), it is estimated that approximately 450 million people suffer from mental or behavioral disorders globally. The Global Burden of Disease Study reported that mental health and substance use disorders accounted for 10.4% of global disability-adjusted life years in 2017 (Vigo *et al*., 2016). These statistics underscore the substantial impact of mental health disorders on individuals and societies.

Caregiver's perspectives on ECT are often negative due to media and Internet portrayal. Perspectives are influenced by risks, short-term side effects, and the most commonly reported longer-term side effect: memory loss. However, many patients do not report memory loss. Most people who experience ECT and their carers report a positive perspective. In the future, people's perspectives may become more positive with higher service delivery standards and a more balanced, well-informed view of modern ECT presented by the media. However, ECT has risks and side effects, and negative and critical perspectives on the use and effects of ECT will persist. The Internet is a source of both impartial and false or distorted information related to ECT, meaning that it is not easy for people to discern the truth (Griffiths and O'Neill-Kerr, 2019). Inaccurate information biased against ECT generates negative opinions and belief systems, which can lead to societal stigma toward individuals undergoing or having undergone ECT, possibly leading to discrimination. The impact of this negative portrayal in the media and on the Internet can also lead to self or internalized stigma in people who have had ECT.

Publisher: SARC Publisher

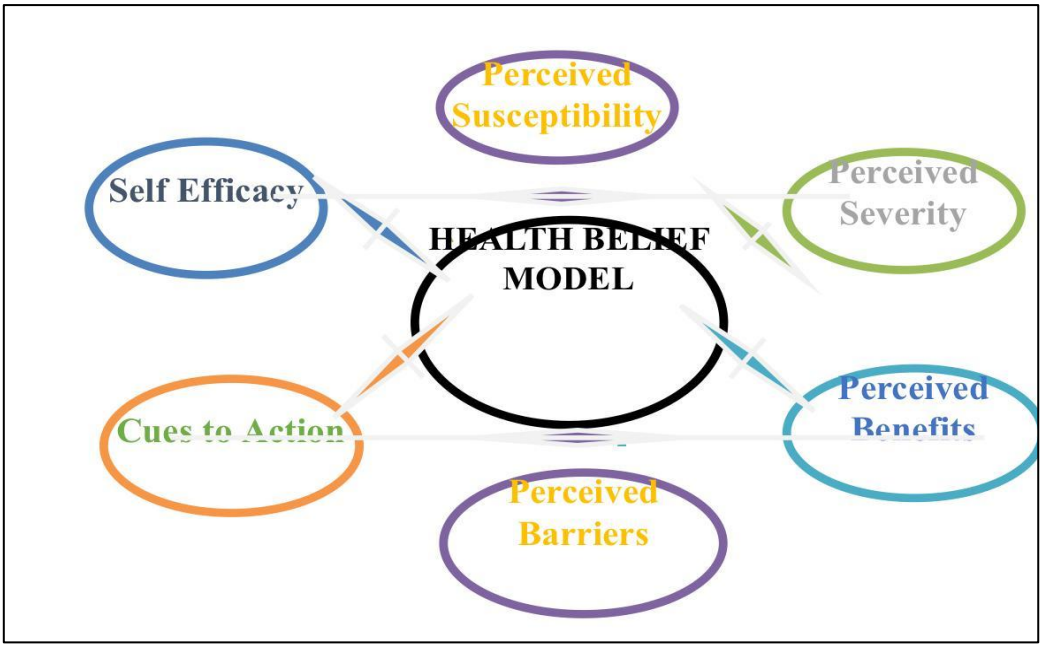

Figure 1: A diagram of Health Belief Model (HBM)

Criticism:

Psychiatric problem is one of the most serious disorders that has affected human beings from the time immemorial. A psychiatric patient who is having schizophrenic, depression, mania, or bipolar disorder does not have a sense of judgment to decide on which mode of treatment best suits him/her because he or she is out of touch with reality. He does not know the seriousness of the condition and whether there is the need to take actions or not, even when the available financial resources are bountifully available. He does not have the sense of reasoning as regards taking a particular action that will be beneficial to him/her. This includes having bad orientations like people who say that persons living with psychiatric disorder are callous and therefore cannot take decisions on their own. However, this particular model can only be relevant to the immediate family of the patients (caregivers) who will take major decisions on his/her behalf, in terms of the susceptibility, severity as regard to action taken to surmount the health challenges. In terms of the therapeutic approach, the family will decide for the sick person whether he or she should be taken to the hospital for treatment or seek alternative therapy based on the socio-cultural beliefs of the client.

CONCEPTUAL FRAMEWORK

The conceptual model for this study is derived from the health belief model is a widely recognized framework in health beahaviour theory. This conceptual framework aims to explore the role of caregivers in the decision-making process, their beliefs and attitudes towards ECT, and how these factors relate to the HBM. In relation to the perception of caregivers on the efficacy of ECT, this framework postulates that an individual's health is influenced by their perceptions of susceptibility to a health issue, benefits of taking action, and barriers to taking action. In the context of ECT, the caregivers' beliefs and attitudes towards the therapy can be analyzed through the lens of the HBM to understand their decision-making process and influence on the client's treatment outcome. The following determinants were highlighted from the framework adopted: Perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy.

Publisher: SARC Publisher

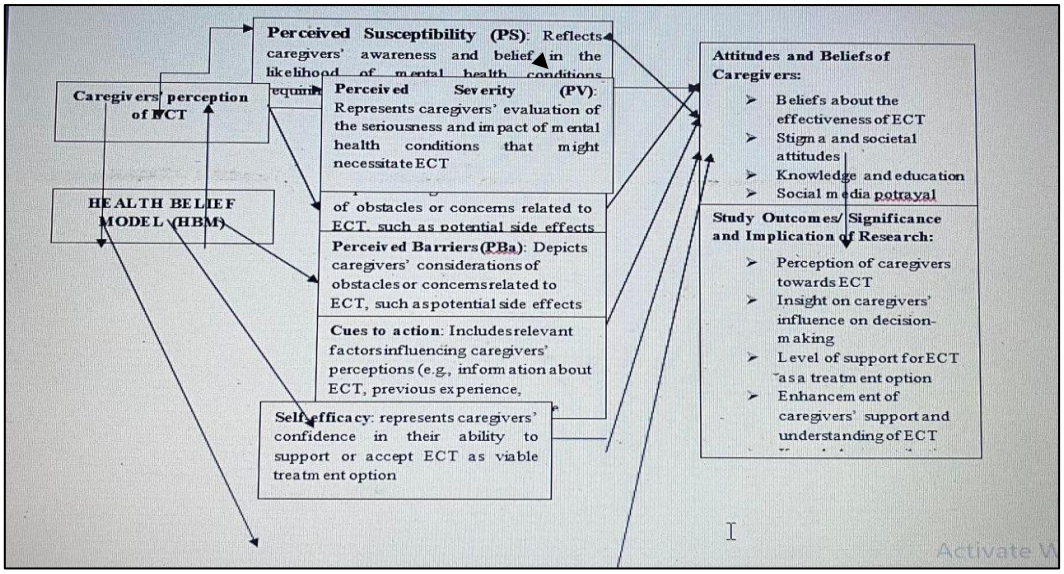

Figure 2: A Researcher-Designed Diagrammatic Conceptual Framework on The Perception of Caregivers on The Efficacy of ECT with The Application Of Health Belief Model (HBM).

MATERIALS AND METHODS

A descriptive cross-sectional research design was adopted for collection of information from 200 caregivers in Nigeria where information were collected to determine their attitudes toward, knowledge, and perception on the efficacy of ECT. This study took place in Nigeria, specifically Southwest. Neuropsychiatric hospital Aro, Abeokuta. The study was carried out at Neuropsychiatric Hospital Aro Abeokuta, Ogun State. The choice of this hospital was based on the fact that it is a well-known hospital with good reputation and it is a federal government owned specialist hospital whose main concern is for the treatment and care of those with mental illness. According to the official website for Federal Neuropsychiatric Hospital, Aro (2022); Neuropsychiatric Hospital, Aro started at her annex in Lantoro in 1944 as an administrative prison/asylum which was established by colonialists for mentally ill soldiers repatriated home after World War II. The target population for this study comprises caregivers of clients with mental health disorders receiving Electroconvulsive Therapy at Neuropsychiatric Hospital, Aro including males and females of ages 18 years and above, as well as medical professionals involved in the care of individuals that have undergone or are undergoing ECT. The total number per records is about 95 – 160 clients annually. A simple random sampling method was employed to select sample size from a total population of 295 participants randomly in different departments from the hospital. Each ward had a number to it and the assigned numbers were rolled up in a paper separately and put together, after mixing to avoid bias, randomly selected unit from the pool were selected, same method was applied to select the caregivers of the clients in the units. Inclusion criteria for informal caregivers included being aged 18 years and above, providing care for a client who had undergone ECT, and providing informed consent to participate in the study. Inclusion criteria for formal caregivers include having a license to practice, an employment in the hospital and previously providing care for a client who had undergone ECT. Structured instrument 295 (Using the average number of in-patient clients per records of ten (10) clients per month, this equates to an estimated size of one hundred and twenty (120) clients in a year; along the record of out-patients that have underwent the therapy still receiving medications at the clinic which was 175. Therefore, the estimated population size for this study was 295 while the sample size derived from the use of Taro Yemane was adopted was estimated to 200 participants. Face to face method and purposive sampling for the administration of the structured questionnaires. All ethical conditions were observed such as informed consent, confidentiality, anonymity among others The quantitative data collected was analysed through the use of descriptive statistics such as frequencies and percentages were used to summarize demographic characteristics and responses to closed-ended questions. At 0.05 level of significance, with a confidence interval of 95% the hypotheses were tested using Chi-square, Multiple linear regression and Pearson's

Publisher: SARC Publisher

correlation coefficient collated on Statistical Package for Social sciences (SPSS), version 23.

Results

This chapter presents the results using tables and figures of analysis properly labelled, the contents duly described as well as the research questions/ hypotheses answered on the Perception of Caregivers of Clients with Mental Health Disorders on the Efficacy of the Electroconvulsive Therapy (ECT) in Neuropsychiatric Hospital, Aro. It includes the presentation of the data analyzed, gathered through the use of questionnaire distributed to the respondents. Two hundred (200) hardcopy questionnaires were distributed and two hundred (200) copies were retrieved, all was retrieved, totaling up to two hundred respondents. This gave a full response rate with respect to the sample size of the study.

The socio-demographic characteristics of the respondents included their age range, sex, marital status, educational status, religious affiliation, ethnic group, occupation, relationship with patient, and length of time as a caregiver to the person. The table below, Table 1 shows the socio-demographic characteristics of the 200 sampled respondents. The number of respondents 18-27 years were 112 (56.0%), 28-37 years were 54 (27.0%), 38-47 years were 16 (8.0%), 48-57 years were 12 (6.0%), 58-67 years were 4 (2.0%) and 68 years and above were 2 (1.0%). The sample of caregivers consisted of 126 (63.0%) female and 74 (37%) male respondents. The marital status distribution showed that 129 (64.5%) of the respondents were single (unmarried), 69(34.5%) were married, and 2(1.0%) were separated. The educational status of the respondents were classified into no formal education, secondary school certificate, OND, HND, university degree, and master's degree and others, of which 8(4.0%) were of no formal education, 28(14.0%) were secondary school certificate holders, were 4(2.0%) OND holders, 12(6.0%) were HND, 109(54.5%) were university graduates, 35(17.5%) were master's degree holders and others were 4(2.0%). For the religious affiliation; 121(60.5%) of the respondents were Christians, 70(35.0%) were Muslims and 9 (4.5%) were of the African Traditional Religion. The ethnic group distribution showed that were 150(75.0%) Yoruba, 24(12.0%) were Hausa, and 26(13.0%) were Igbo. The distribution of the occupation showed that were 20(10.0%) civil-servants, 83(41.5%) were self-employed, 10(5.0%) were medical doctors, 38(19.0%) were nurses, 4(2.0%) were farmers, 19(9.5%) were unemployed, and 4(2.0%) had other occupations. The distributions of the relationship of the caregivers with the clients showed that 4(2.0%) were fathers, 12(6.0%) were mothers, 62(31.0%) were professional caregivers, 67(33.5%) were siblings, 53(26.5%) were children, and 2(1.0%) had other relationships with the clients. The distributions of the duration of their being caregivers showed that 83(41.5%) had been caregivers for less than a year, 101(50.5%) had been caregivers for 1-5 years, 12(6.0%) had been caregivers for 6-10 years, 2(1.0%) had been caregivers for 11-15 years, and 2(1.0%) had been caregivers for 16-20 years.

The table below shows level of knowledge of ECT among the participants. Scale scores were computed by adding the responses to the 5 questions in the knowledge scale wherein the likerts scale ranging from strongly disagree (SD), disagree (D), neutral (N), agree (A), and strongly agree (SA) was applied resulting in a minimum possible score of 5 and maximum of 25. The maximum knowledge score obtained was 25(7.5%) and the minimum knowledge score was 0(0.7%). Based on the scale, a little over one quarter 57(28.5%) of the participant had a high knowledge score of above 20, more than half 117(58.5%) of the participants had a moderate knowledge score of between 14 and 19, and very little over one quarter 26 (13.0%) had a low knowledge score of 13 and below.

The table below shows the information sources of caregivers on ECT of which includes sources from doctors/healthcare professionals, online sources, support groups, family/friends, personal research, media/news, and other sources. From the distribution of the sources, 106(53.0%) received information on ECT from doctors/healthcare professionals while 94(47.0%) did not receive information on ECT from doctors/healthcare professionals, 119(59.5%) received information on ECT from online sources while 81(40.5%) did not receive information on ECT from online sources, 48(24.0%) received information on ECT from support groups while 152(76.0%) did not receive information on ECT from support groups, 60 (30.0%) received information on ECT from family/friends while 140(70.0%) did not receive information on ECT from family/friends, 61(30.5%) received information on ECT from personal research while 139(69.5%) did not receive information on ECT from personal research, 58(29.0%) received information on ECT from media/news while 142(71.0%) did not

Publisher: SARC Publisher

receive information on ECT from media/news, and 2(1.0%) received information on ECT from other sources while 198(99.0%) did not receive information on ECT from other sources.

The table below shows level of perceived efficacy of ECT among the participants. Scale scores were computed by adding the responses to the 2 questions in the efficacy scale wherein the likerts scale ranging from strongly disagree (SD), disagree (D), neutral (N), agree (A), and strongly agree (SA) was applied resulting in a minimum possible score of 2 and maximum of 10. The maximum efficacy score obtained was 10(13.0%) and the minimum efficacy score was 2(3.0%). Based on the scale, more than three quarters 168(84.0%) of the participants had a high efficacy score of between 6 and more, and less than one quarter 32 (16.0%) had a low efficacy score of 5

The table below shows level of perceived safety of ECT among the participants. Scale scores were computed by adding the responses to the 2 questions in the safety scale wherein the likerts scale ranging from strongly disagree (SD), disagree (D), neutral (N), agree (A), and strongly agree (SA) was applied resulting in a minimum possible score of 2 and maximum of 10. The maximum safety score obtained was 10(17.5%) and the minimum safety score was 3(3.0%). Based on the scale, more than three quarters 174(87.0%) of the participants had a high safety score of between 6 and more, and less than one quarter 26 (13.0%) had a low safety score of 5

Hypothesis One

There is no significant relationship between caregivers' socio-demographic factors and their perception of the efficacy of ECT in Neuropsychiatric Hospital, Aro. Chi-square statistics were used to examine the relationship between the socio-demographic factors of caregivers' and their perception of the efficacy of ECT. The results of the Chi-square test of association are summarized in the table below:

Table 1 Chi-square analysis results

Sociodemographic Variables		**Level of Perceived Efficacy**		**x^2**	**df**	**P**
		Low	**High**			
Age Range	18-27	18(16.1%)	94(83.9%)	17.876	5	.003*
	28-37	4(7.4%)	50(92.6%)			
	38-47	4(25.0%)	12(75.0%)			
	48-57	4(33.0%)	8(66.7%)			
	58-67	0(0.0%)	4(100.0%)			
	68+	2(100.0%)	0(0.0%)			
Sex	Male	16(21.6%)	58(78.4%)	2.762	1	.097
	Female	16(12.7%)	110(87.3%)			
Marital Status	Single	22(17.1%)	107(82.9%)	.604	2	.739
	Married	10(14.5%)	59(85.5%)			
	Separated	0(0.0%)	2(100.0%)			
Educational Status	No formal education	6(75.0%)	2(25.0%)	31.229	6	.000*
	Secondary school certificate	4(14.3%)	24(85.7%)			
	OND	2(50.0%)	2(50.0%)			
	HND	4(33.3%)	8(66.7%)			
	University degree	14(12.8%)	95(87.2%)			
	Master Degree	2(5.7%)	33(94.3%)			
	Others	0.0%)	4(100.0%)			
Religious Affiliation	Christian	26(21.5%)	95(78.5%)	7.300	2	.026*
	Muslim	6(8.6%)	64(91.4%)			
	African Traditional Religion	0(0.0%)	9(100.0%)			
Ethnic Group	Yoruba	30(20.0%)	120(80.0%)	7.788	2	.020*
	Hausa	2(8.3%)	22(91.7%)			
	Igbo	0(0.0%)	26(100.0%)			
Occupation	Civil Servant	4(20.0%)	16(80.0%)	10.457	7	.164
	Self-employed	12(14.5%)	71(85.5%)			

Publisher: SARC Publisher

	Medical Doctor	0(0.0%)	10(100.0%)			
	Nurse	4(10.5%)	34(89.5%)			
	Farmer	2(50.0%)	2(50.0%)			
	Student	4(18.2%)	18(81.8%)			
	Unemployed	4(21.1%)	15(78.9%)			
	Others	2(50.0%)	2(50.0%)			
Relationship with Patient	Father	4(100.0%)	0(0.0%)	36.183	5	.000*
	Mother	2(16.7%)	10(83.3%)			
	Professional Caregiver	6(9.7%)	56(90.3%)			
	Sibling	4(6.0%)	63(94.0%)			
	Step parent	16(30.2%)	37(69.8%)			
	Others	0(0.0%)	2(100.0%)			
Time as a Caregiver	Less than a year	16(19.3%)	67(80.7%)	17.022	4	.022*
	1-5 years	10(9.9%)	91(90.1%)			
	6-10 years	4(33.3%)	8(66.7%)			
	11-15 years	2(100.0%)	0(0.0%)			
	16-20 years	0(0.0%)	2(100.0%)			

x^2=Pearson chi square value, df=degree of freedom, P =Probability value, *: significant at P< .050.

Inference: From Table 6, the caregivers' age range (x^2=17.876, p =.003), educational status (x^2 =31.229, p<.001), religious affiliation (x^2=7.300, p =.026), ethnic group (x^2=7.788, p =.020), relationship with patient (x^2=36.183, p <.001), time as a caregiver (x^2=17.022, p =.022) were significantly related to the caregivers' level of perceived efficacy at p<.050. However, no significant relationship was found between the caregivers' sex, marital status, occupation and their level of perceived efficacy. A multiple linear regression analysis was conducted to examine how well caregivers' level of perceived efficacy of ECT can be predicted by sociodemographic factors. The outcome variable (level of perceived efficacy) was regressed on predictor socio-demographic factors. The independent variables significantly predict perceived efficacy of ECT, R^2 = .200, F (18.060) = 5.267, p < .001, which indicates that the sociodemographic variables under study have a significant impact on the perceived efficacy of ECT by caregivers. Moreover, the R^2=.200 depicts that the model explains 20.0% of the variance in perceived efficacy of ECT by caregivers', meaning 20.0% change in perceived efficacy of ECT can be accounted for by socio-demographic factors. Additionally, coefficients were further assessed to ascertain the influence of each of the factors on the criterion variable (perceived efficacy of ECT).

The summary of the findings is shown in Table 2 below.

Table 2: Hypothesis results

Sociodemographic Variables	B	T	p-value	Results
Age range	-.210	-2.648	.009*	Supported
Sex	.207	3.066	.002*	Supported
Marital Status	-.060	-.780	.436	Not Supported
Educational Status	.273	3.730	.000*	Supported
Religious Affiliation	.062	.923	.357	Not Supported
Ethnic group	.107	1.556	.121	Not Supported
Occupation	-.074	-1.053	.294	Not Supported
Relationship with patient	-.188	-2.673	.008*	Supported
Time as a Caregiver	.159	2.239	.026*	Supported
R^2	.200			
F(18.060)	5.267			

Dependent Variable: Knowledge Score, *: significant at P< .050.

From Table 2, the results revealed that age range (B= -.210, t= 2.648, p=.009), sex (B= .207, t= 3.066, p=.002), educational status (B=.273=, t=3.730, p<0.001), relationship with patient (B= -.188, t=-2.673, p=.008) and time as a caregiver (B=.159, t=2.239, p=.026) have a significant and positive impact on caregivers' level of knowledge of ECT. Hence, they were supported. However, it

Publisher: SARC Publisher

showed that marital status (B = -.060, *t* = -.780, *p* = .436), religious affiliation (B = .062, *t* = .923, *p* = .357), ethnic group (B = .107, *t* = 1.556, *p* = .121), and occupation (B = -.074, *t* = -1.053, *p* = .294), do not have a significant and positive impact on caregivers' level of knowledge of ECT. Hence, they were not supported.

Hypothesis Two

Association between Caregivers' Knowledge and Their Perception of the Efficacy of ECT

Ho 2: There is no significant relationship between caregivers' knowledge and their perception of the efficacy of ECT in Neuropsychiatric Hospital, Aro.

Chi-square statistics were used to examine the association between categorical variables (Level of Knowledge and Level of Perceived Efficacy). The results of the Chi-square Test of Association show that there is a significant association at 5% significance level between the level of caregivers' knowledge and their level of perceived efficacy (x^2= 85.531, df= 2, p= < .001). Hence H2 was not supported.

Table 3: Cross tabulation and Chi-square analysis results

		Level of Perceived Efficacy		**x^2**	**Df**	**P**
		Low	High			
Level of Knowledge	Low	20	6	85.531	2	.000
	Moderate	12	105			
	High	0	57			

x^2=Pearson chi square value, df=degree of freedom, P =Probability value, *: significant at P< .050.

A Pearson Correlation examined the association between level of knowledge and level of perceived efficacy. Pearson product correlation of level of knowledge and level of perceived efficacy was found to be positively moderate and statistically significant (r = .544, p < .001). Hence, H2 was not supported. This shows that an increase in the caregivers' level of kmowledge would lead to a higher level of perceived efficacy.

The correlation table below (Table 9) provides a summary of findings.

Table 4: Correlations between level of knowledge and level of perceived efficacy

	Level of Knowledge	**Level of Perceived Efficacy**
Level of Knowledge		.544**
Level of Perceived Efficacy	.544**	

*Note. ** Correlation is significant at the .01 level (2-tailed)*

Hypothesis Three

Association between Caregivers' Knowledge and Their Perception of The Safety of ECT

Ho 3: There is no significant relationship between caregivers' knowledge and their perception of the safety of ECT in Neuropsychiatric Hospital, Aro.

Chi-square statistics were used to examine the association between categorical variables (Level of Knowledge and Level of Perceived Safety). The results of the Chi-square Test of Association show that there is a significant association at 5% significance level between the level of caregivers' knowledge and their level of perceived safety (x^2= 108.862, df= 2, p= < .001). Hence H3 was not supported.

Table 5: Cross tabulation and Chi-square analysis results

		Level of Perceived Safety		**x^2**	**df**	**P**
		Low	High			
Level of Knowledge	Low	20(76.0%)	6(23.1%)	108.862	2	.000*
	Moderate	6(5.1%)	111(94.9%)			
	High	0(0.0%)	57(100.0%)			

x^2=Pearson chi square value, df=degree of freedom, P =Probability value, *: significant at P< .050.

A Pearson Correlation examined the association between level of knowledge and level of perceived safety. Pearson product correlation of level of

Publisher: SARC Publisher

knowledge and level of perceived safety was found to be positively moderate and statistically significant (r = .571, p < .001). Hence, H3 was not supported. This shows that an increase in the caregivers' level of knowledge would lead to a higher level of perceived safety.

The correlation table below (Table 11) provides a summary of findings.

Table 6: Correlations between level of knowledge and level of perceived safety

	Level of Knowledge	Level of Perceived Safety
Level of Knowledge		.571**
Level of Perceived Efficacy	.571**	

*Note. ** Correlation is significant at the .01 level (2-tailed)*

Hypothesis Four

Association between Caregivers' Information Sources and Their Perception of The Efficacy of ECT

Ho 4: There is no significant relationship between caregivers' information sources and their perception of the efficacy of ECT in Neuropsychiatric Hospital, Aro.

A multiple linear regression analysis was conducted to examine how well caregivers' level of perceived efficacy of ECT can be predicted by information sources. The outcome variable (level of perceived efficacy) was regressed on predictor information sources. The independent variables significantly predict perceived efficacy of ECT, R^2 = .087, F (10.076) = 2.602, p < .001, which indicates that the information sources under study have a significant impact on the perceived efficacy of ECT by caregivers. Moreover, the R^2=.087 depicts that the model explains 8.7% of the variance in perceived efficacy of ECT by caregivers', meaning 8.7% change in perceived efficacy of ECT can be accounted for by information sources. Additionally, coefficients were further assessed to ascertain the influence of each of the factors on the criterion variable (perceived efficacy of ECT).

The summary of the findings is shown in Table 12 below.

Table 7: Hypothesis results

Information Sources	B	T	p-value	Results
Doctor/healthcare professional	-.236	-2.872	.005*	Supported
Online resources	-.239	-3.069	.002*	Supported
Support groups	-.063	-.835	.405	Not Supported
Family/friends	-.015	-.178	.859	Not Supported
Personal research	.014	.190	.850	Not Supported
Media/news	.143	1.654	.100	Not Supported
Other	-.042	-.575	.566	Not Supported
R^2	,087			
F(10.076)	2.602			

Dependent Variable: Knowledge Score, *: significant at P< .050.

From Table 7, the results revealed that support groups (B= -.063, *t*= -.835, *p*=.405), family/friends (B= -.015, *t*= -.178, *p*=.859), personal research (B=.014=, *t*=.190, *p*=.850), media/news (B= .143, *t*=1.654, *p*=.100) and other sources (B=-.042, *t*=-.575, *p*=.566) do not have a significant and positive impact on caregivers' level of perceived efficacy of ECT. Hence, they were not supported. However, it showed that doctor/healthcare professionals (B = -.236, *t* = -2.872, *p* = .005), and online sources (B = -.239, *t* = -3.069, *p* = .002), have a significant and positive impact on caregivers' level of perceived efficacy of ECT. Hence, they were supported.

DISCUSSION OF FINDINGS

The discussion of key findings in the study, the implications of the findings with literature support, alignment of the findings with previous studies, The results showed that over half of the caregivers (58.5%) had a moderate level of knowledge about ECT, while 28.5% had high knowledge and 13% had low knowledge. This suggests that most caregivers have at least a basic understanding of ECT, but there is still room for improvement in educating caregivers about this treatment. The finding of moderate knowledge aligns with previous studies that have found caregivers often

Publisher: SARC Publisher

have some familiarity with ECT but may lack comprehensive understanding (Grover *et al*., 2019). The fact that over a quarter of caregivers had high knowledge is encouraging, as caregiver knowledge has been associated with more positive attitudes towards ECT (Grover *et al*., 2019). However, the 13% with low knowledge highlights the need for ongoing education efforts. Low knowledge among caregivers has been linked to misconceptions and negative views of ECT (Grover *et al*., 2019). The study found a significant positive correlation between caregivers' knowledge of ECT and their perceptions of its efficacy and safety. s

The most common information sources on ECT for caregivers were online sources (59.5%) and doctors/healthcare professionals (53%). This reflects the growing role of the internet as a health information source, while also highlighting the continued importance of healthcare providers in patient and caregiver education. The relatively high use of online sources aligns with trends seen in other studies on mental health information seeking (Cheung, Baker and Tabraham, 2022). However, the quality and accuracy of online ECT information can vary greatly, emphasizing the need for reliable online resources (Cheung, Baker and Tabraham, 2022). It is notable that fewer caregivers reported getting ECT information from support groups (24%), family/friends (30%), or personal research (30.5%). This may indicate opportunities to enhance peer support and encourage more proactive information seeking among caregivers. Support groups in particular have been found to be valuable for increasing knowledge and reducing stigma around ECT..The majority of caregivers perceived ECT as both efficacious (84% high efficacy score) and safe (87% high safety score). This overall positive perception is encouraging and aligns with clinical evidence on the effectiveness and safety of modern ECT when properly administered (Espinoza and Kellner, 2022). The high perceived efficacy may reflect caregivers observing positive outcomes in their loved ones who have undergone ECT. However, it is important to note that a minority of caregivers still had low perceptions of ECT efficacy (16%) and safety (13%). This suggests there is still work to be done in addressing concerns and misconceptions about ECT among some caregivers. Previous research has found that negative perceptions of ECT efficacy and safety are often rooted in outdated ideas or misinformation about the procedure (Espinoza and Kellner, 2022).

CONCLUSION AND RECOMMENDATIONS.

Results from this study show that the caregivers' age range, educational status, religious affiliation, ethnic group, relationship with patient, time as a caregiver, were significantly related to the caregivers' level of perceived efficacy at $p<.050$. However, no significant relationship was found between the caregivers' sex, marital status, occupation and their level of perceived efficacy. Recent studies supports that gender can influence perceptions and outcomes related to ECT. For instance, some research suggests that women may have different attitudes towards ECT compared to men, potentially due to differences in societal roles, psychological resilience, or mental health experiences (Biliaminu and Aina, 2020).

According to the findings of this study, it was found that there is a significant association between caregivers' level of knowledge and their perceived efficacy of ECT. Numerous studies have demonstrated that knowledge is a crucial factor in shaping perceptions of medical treatments, including ECT. For instance, research has consistently shown that individuals with higher levels of knowledge about ECT are more likely to perceive it as effective and are more supportive of its use (Karlovic *et al*., 2020). Studies have also highlighted the importance of educational interventions in improving perceptions of ECT. When caregivers or patients are provided with accurate, detailed information about ECT, including its benefits, risks, and outcomes, they tend to have more positive attitudes toward the treatment (Deng, *et al*., 2023). Studies by Cheung *et al*. (2022), have reported similar findings, where increased knowledge about ECT among both caregivers and patients leads to higher perceived efficacy and greater acceptance of the treatment.

According to the findings of this study, it was found that there is a significant association between caregivers' level of knowledge and their perceived safety of ECT. Numerous studies have confirmed that increased knowledge about ECT can positively influence perceptions of its safety. For instance, research has shown that when caregivers or patients are better informed about the procedure, including its risks, benefits, and the likelihood of adverse effects, they are more likely to perceive ECT as a safe treatment option (Karlovic *et al*., 2020). In correlation with findings

Publisher: SARC Publisher

from this study, recent studies, such as those by (Biliaminu and Aina, 2020)., have reported similar findings where increased knowledge about ECT was associated with higher perceived safety. These studies consistently highlight the importance of knowledge in shaping attitudes towards the safety of ECT, suggesting that caregivers and patients with more information are less likely to view the treatment as dangerous.

Results from this study show that the caregivers' information source from media/news was significantly related to the caregivers' level of perceived efficacy at p<.050. However, no significant relationship was found between the caregivers' information source from doctors/healthcare professionals, online sources, support groups, family/friends, personal research, other sources and their level of perceived efficacy. Studies have consistently shown that media can have a strong influence on public perceptions of mental health treatments, including ECT. Media portrayals, which can sometimes be sensationalized or biased, often shape opinions and attitudes toward ECT, leading to either positive or negative perceptions depending on the nature of the coverage (Espinoza and Kellner, 2022). Your finding that media/news significantly impacts perceived efficacy aligns with this research, indicating that media plays a crucial role in shaping caregivers' views on ECT. Contrary to the expectation that healthcare professionals would be the most trusted and influential source of information, this study found no significant relationship between information from doctors and perceived efficacy. This is surprising and somewhat at odds with other studies, which typically emphasize the critical role of healthcare professionals in educating and influencing patient and caregiver perceptions (Seiner and Bragg, 2021). The lack of significance in your findings could be due to factors such as the quality of communication, the caregivers' prior beliefs, or potential mistrust in medical authority. While online sources, including social media, are increasingly becoming primary sources of health information, this study found no significant relationship between these sources and perceived efficacy. This might reflect the mixed quality of information available online, where both accurate information and misinformation are prevalent, leading to varied impacts on perception (Smith *et al*., 2019).

Based on the study's findings, the following recommendations are made to aid in increasing the perception of caregivers of clients with mental health disorders on the efficacy of ECT:

- Enhanced Education Programs should be developed and comprehensive education programs implemented for caregivers about ECT, including its benefits, risks, and the evidence supporting its use. This could involve informational sessions, brochures, and one-on-one counseling with healthcare professionals.
- Support Services should be established specifically for caregivers, such as counseling, peer support groups, and helplines, to help them manage the emotional and psychological challenges associated with their loved one's treatment.
- The involvement of caregivers in the treatment planning process should be encouraged to ensure that their concerns and preferences are considered. This can help in building trust and ensuring that caregivers feel more confident in the treatment being provided.
- Regular Follow-ups should be conducted with caregivers throughout the treatment process to reassess their perceptions and provide ongoing support and information as needed.

REFERENCES

1. Bhandari, S., & Bruce, D. F. (2023), Electroconvulsive Therapy (ECT) Benefits & Side Effects (webmd.com) *WebMD,* accessed, 21 February 2025
2. Biliaminu, A., & Aina, J. O., Assessment of factors associated with treatment relapse among patients diagnosed with psychotic illness in two psychiatric hospitals in South West, Nigeria. *African Journal of Health, Nursing and Midwifery*, 3.5 (2020): 12-53.
3. Cheung, O., Baker, M., & Tabraham, P. "Improving attitudes toward electroconvulsive therapy." *BJPsych bulletin* 46.1 (2022): 4-10.
4. Cipriani, A., Furukawa, T. A., Salanti, G., Chaimani, A., Atkinson, L. Z., Ogawa, Y., ... & Geddes, J. R. "Comparative efficacy and acceptability of 21 antidepressant drugs for the acute treatment of adults with major depressive disorder: a systematic review and network meta-analysis." *The Lancet* 391.10128 (2018): 1357-1366.
5. Deng, C. J., Nie, S., Mai, J. X., Huang, X., Huang, X. B., & Zheng, W. "Electroconvulsive therapy knowledge and attitudes among patients and caregivers in South China: a preliminary study." *Frontiers in Psychiatry* 14 (2023): 1145301.

Publisher: SARC Publisher

6. Espinoza, R. T., & Kellner, C. H. "Electroconvulsive therapy." *New England Journal of Medicine* 386.7 (2022): 667-672.
7. Federal Neuropsychiatric Hospital, Aro "Historical Perspective of the Hospital," accessed (2023). portal.neuroaro.gov.ng/historical-perspective-of-the-hospital/
8. Griffiths, C., & O'Neill-Kerr, A. "Patients', carers', and the public's perspectives on electroconvulsive therapy." *Frontiers in psychiatry* 10 (2019): 304.
9. Grover, S., Sahoo, S., Rabha, A., & Koirala, R. "ECT in schizophrenia: a review of the evidence." *Acta neuropsychiatrica* 31.3 (2019): 115-127.
10. Jones, A., Smith, B., & Johnson, C. "Caregiver Perspectives on Electroconvulsive Therapy for Severe Depression: A Mixed-Methods Study." *Journal of Clinical Psychiatry*, 79.4 (2018): 123-130.
11. Karlović, D., Badžim, V. A., Vučić, M., Krolo Videka, H., Horvat, A., Peitl, V., ... & Ivančić Ravlić, I. "Eighty years of electroconvulsive therapy in croatia and in sestre milosrdnice university hospital centre." *Acta clinica Croatica* 59.3. (2020): 489-495.
12. Espinoza, R. T., & Kellner, C. H. "Electroconvulsive therapy." *New England Journal of Medicine* 386.7 (2022): 667-672.
13. National Institute of Mental Health. "Electroconvulsive Therapy." (2019). nimh.nih.gov/health/topics/electroconvulsive-therapy-ect/index.shtml
14. Seiner, J. S., & Bragg T. A. "ECT Treatment: A History of Helping Patients." *Mass General Brigham McLean,* (2021). ECT Treatment: A History of Helping Patients | McLean Hospital
15. Smith, D., Brown, L., & Williams, S. "Caregiver Perceptions of Electroconvulsive Therapy for Bipolar Disorder: A Qualitative Analysis." *Journal of Affective Disorders*, 210.2 (2019): 87-94.
16. Zuñiga Zuluaga, M. A. "Protocolo para la atención de pacientes mayores de 18 años que reciben Terapia Electroconvulsiva con Anestesia y Relajación (TECAR) en la Clínica Universidad de la Sabana." (2022).
17. Substance Abuse and Mental Health Services Administration (SAMHSA). "Living Well with Serious Mental Illness, accessed." (2023) samhsa.gov/serious-mental-illness
18. Substance Abuse and Mental Health Services Administration (SAMHSA). (2023) What is Mental Health? , accessed, 20 Novemeber, 2023 samhsa.gov/mental-health
19. Vigo, D., Thornicroft, G., & Atun, R. "Estimating the true global burden of mental illness." *The Lancet Psychiatry* 3.2 (2016): 171-178.
20. WHO, O. "International classification of diseases." *WHO [Internet]* (1992)
21. World Health Organization, "Depression and other common mental disorders: global health estimates." *Depression and other common mental disorders: global health estimates*. (2017)

Source of support: Nil; **Conflict of interest:** Nil.

Cite this article as:

OLUBIYI, R. N., & SANYAOLU, E.G. "Evaluation of Knowledge of Caregivers on The Efficacy of The Electroconvulsive Therapy on Clients With Mental Health Disorders in Neuropsychiatric Hospital, Aro, Ogun State." *Sarcouncil Journal of Medical Series* 4.8 (2025): pp 8-20.

Publisher: SARC Publisher