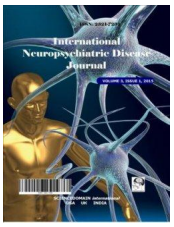

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Demographic and Clinical Profile of Patients Receiving Electroconvulsive Therapy at Federal Neuropsychiatric Hospital Yaba in Lagos, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. All authors contributed to the conceptualization, data collection and final writing of the article. Data analysis was done by authors DMU and OAO. All authors read and approved the final manuscript.

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ABSTRACT

Aims: To obtain sociodemographic and clinical profile of patients receiving Electroconvulsive therapy in a Nigerian psychiatric hospital.
Study Design: A retrospective study.
Place and duration: The study was carried out at the Federal Neuropsychiatric Hospital Yaba, Lagos, Nigeria over a period of 3 months.
Methodology: An extensive review of the hospital records of patients receiving the modified form of electroconvulsive therapy for the first time over a period of eight years was done. The demographic information, clinical diagnosis and indication for electroconvulsive therapy were retrieved and analysis was done using SPSS 19.
Results: There were a total of 222 cases, ranging from 45 in 2000 to 21 in 2007. Mean age was

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31.7 ± 9.65. Male: female ratio was 1:2. Almost 60% of them were single and unemployed. Clinical diagnosis using ICD 10 ranged from schizophrenia (44.8%), severe depression (27.8%), bipolar disorder (15.5%) to puerperal psychosis (8.2%). Indications for electroconvulsive therapy included psychosis (41.6%), severe depressive episode (25.8%), catatonia (23.7%) and manic episode (7.4%).

Conclusion: This study has shown that the use of ECT has declined in the facility over the study periods. Also, females were twice as likely to receive electroconvulsive therapy compared to males and schizophrenia still remains the most common diagnosis among the patients.

Keywords: Depression; electroconvulsive therapy; schizophrenia; catatonia; psychosis.

ABBREVIATIONS

ECT: Electroconvulsive Therapy.

1. INTRODUCTION

Electroconvulsive therapy (ECT) is one of the physical therapeutic processes in psychiatry which involves the passage of an electrical stimulus to the brain so as to induce a central seizure with the aim of providing improvement in a patient's mental state. From a global perspective, it is estimated that at least 1,000,000 people receive electroconvulsive therapy (ECT) annually [1]. The major indications for ECT are major depression, catatonia, schizophrenia and acute mania and bipolar disorder [2.3.4]. It is also been used in the treatment of some medical conditions such as refractory Parkinson's disease, particularly with "on-off" syndrome (e.g., severe, unpredictable motor fluctuations), neuroleptic malignant syndrome, temporal lobe epilepsy and intractable seizure disorders [3,5,6]. According to Sackeim et al, ECT is also considered a first-line treatment when medical or psychiatric factors require a rapid and robust clinical response, when ECT poses less risk to a patient than medication (e.g., during pregnancy or in elderly patients), when there is a clear history of medication resistance or a history of favourable response to ECT, or when the patient prefers ECT to medication [7]. Similarly, ECT has been shown to have a profound short-term benefit in suicidal patients [8].

There is however a decline in the use of ECT worldwide and various reasons were deduced for this decline [9,10,11]. For instance, Nancy et al proposed that the decline in the use of ECT in the United States of America was due to organized and vocal anti-ECT activity that is not countered by a public education campaign; continued distortions in the media; restrictive reimbursement schedules, which may hinder patients from obtaining or completing courses of ECT; lack of availability, particularly for the poor and uninsured (public facilities have traditionally been unwilling, from a policy standpoint, to bear the stigma or the cost of providing ECT and. only approximately 8% of psychiatrists in the United States offer ECT as a treatment); poor regard for the treatment; psychiatrists' unwillingness to prescribe ECT due to concern that the recommendation will not be well received or because they have outdated information about the treatment [12].

Similarly, other authors attributed the decline to unfavourable public perception and professional attitude; publication of more restrictive guidelines on the use of ECT; availability of a greater variety of safe alternative antipsychotics and antidepressants; patient resistance and a reduction in in-patient bed numbers [12,13,14].

In spite of these reservations, ECT still remains in use globally especially in the modified form. Studies have reported rates of between 0.4% and 1.7% among discharged in -patients in the united states and 0.8% to 15.0% in United Kingdom [15,16]. There are however limited studies done on ECT in Nigeria and Africa as a whole. The main objective of this study was to obtain sociodemographic and clinical profile of patients receiving ECT in a Nigerian psychiatric hospital.

2. MATERIALS AND METHODS

The study was carried out at the Federal Neuropsychiatric Hospital Yaba, Lagos, Nigeria. The hospital was established in 1907 and has a capacity for over 530 patients. The hospital has numerous consultant psychiatrists and is also one of the largest facilities for managing mental disorders in Sub-Saharan Africa.

Permission to conduct the study was granted by the Ethical committee of the Hospital. The hospital records of patients who received ECT at the hospital from January 1st of 2000 to December 31st of 2007 were reviewed for demographic information, clinical Diagnosis and indication for ECT use. The patients received the modified form of ECT with bilateral electrode placement. Only patients who were administered ECT for the first time during the period were recruited. Analysis was done using SPSS 19.

3. RESULTS AND DISCUSSION

There were a total of 222 new cases between 2000 and 2007. The highest number of cases (45) was recorded in the year 2000 and this accounted for 20.3% of the total number of patients who received ECT for the whole 8years. The number however decreased over time to 21 (9.5%) by 2007. The mean age of the patients was 31.7 ± 9.65. A high number of the patients were females (66.0%), single (58.5%), while 58.8% of the patients were unemployed (Table 1). The clinical diagnosis using ICD 10 of the patients ranged from schizophrenia (44.8%), severe depression (27.8%), bipolar disorder (15.5%) to puerperal psychosis (8.2%). Indications for ECT included psychosis (41.6%), severe depressive episode (25.8%), catatonia (23.7%) and manic episode (7.4%).

Comparing the first four years of the study (2000-2003) with the later four years (2004-2007), the clinical diagnosis of the patients showed that there was a reduction in the percentage of those with schizophrenia from 47.2% to 44.2%. This is however in contrast to those with depression and mental and behavioural disorder in puerperium in which there was an increase in the number of patients from 26.8% to 32.8% (depression) and from 7.1% to 11.5% for postpartum disorders. These differences were statistically significant (chi-square=128.4, df=3, p=0.000).

Depression as an indication for ECT increased from 22.8% between 2000-2003 to 33.9% between 2004-2007. There was however a decline in the proportion of patients who were administered ECT due to catatonia from 24.4% to 22.0%.

This female gender preponderance among the ECT recipients is not unexpected as several studies have also reported that women are more likely to receive ECT than men [17,18]. The high rate of unemployment reported in the study may be due to the disabling nature of the illnesses most especially schizophrenia which makes it difficult for the patients to be gainfully employed especially in an economically disadvantaged country like Nigeria.

The decline in the use of ECT as a treatment option for psychiatric disorders as reported in this study appears to be a global issue as this decline has also been reported in other studies [9,10]. The decline in this environment may be explained by the advent of atypical antipsychotics and selective serotonin reuptake inhibitors antidepressants (SSRIs) most especially the generic forms. When these medications (the branded forms) were first introduced in this environment in the late 1990s, they were not within the reach of most people due to their high cost and since there was no effective health insurance scheme, it meant that only a few people could afford them. Following the introduction of cheaper generic forms some years later, the use of these medications became widespread. This view is consistent with an earlier study which reported that availability of a greater variety of safe alternative antidepressants may be one of the factors responsible for the decline in ECT use [14].

The high proportion of patients with a diagnosis of schizophrenia as reported in this study is consistent with some studies from this environment and other parts of the world but in contrast to some other studies [17,19,20,21,22]. The increasing proportion of patients with depression receiving ECT in contrast to those with schizophrenia may not be unconnected with better response achieved with such patients. Another study had also reported that major depression is the diagnosis for which ECT is now most frequently recommended in the United States and other western nations [12].

The use of ECT in schizophrenia is now shrouded in a lot of controversy such that the Royal college of psychiatrists and the American Psychiatric Association issued guidelines discouraging its use [3,23]. These guidelines stated that ECT could be used if the schizophrenia is of the catatonic subtype or if the symptoms are of an acute onset or in situations where there has been a previous response to ECT. They however did not recommend its use in patients with type 2 schizophrenia. Other authors however reported the effectiveness of ECT in patients with schizophrenia especially when combined with antipsychotics [24-27].

Table 1. Sociodemographic characteristics of the subjects

Variable	Frequency	Percentage (%)
Sex		
Male	75	33.8%
Female	147	66.2%
Marital status		
Single	130	58.6%
Married	48	21.6%
Separated/divorced/ Widowed	44	19.8%
Employment status		
Employed	92	41.4%
Unemployed	130	58.6%
Educational status		
None	5	2.3%
Primary	15	6.7%
Secondary	123	55.4%
Tertiary	79	35.6%

4. CONCLUSION

This study shows that number of patients receiving ECT declined overtime as shown in the results. The first year of study accounting for 20.3% of total cases while last year accounted for 9.5% of case. It also shows that females were twice as likely to receive ECT compared to males. Though, Schizophrenia remains the most common diagnosis, there is however an increasing proportion of patients with depression receiving ECT in this facility in contrast to patients with schizophrenia.

CONSENT

It is not applicable.

ETHICAL APPROVAL

Approval for the study was obtained from the Ethical Committee of the Federal Neuropsychiatric Hospital Yaba, Lagos, Nigeria.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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