EPIDEMIOLOGY OF PSYCHIATRY IN PATIENT ADMISSION OVER A 13 MONTH PERIOD AT JOS UNIVERSITY TEACHING HOSPITAL NIGERIA

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Abstract

Background & Aims: Data on rates of in-patient admission is an invaluable tool for formulating credible policies for the management of the mentally ill. Due to paucity of such information in the undeveloped world, this prospective study sought to examine the epidemiology of psychiatric in-patient admission over a 13-month period at a tertiary hospital in Northern Nigeria.

Methods: 298 out of 300subjects who satisfied the inclusion criteria for the study period completed the study. Diagnosis was made with the ICD 10 research criteria and the socio-demographic questionnaire was administered to each subject. The data was analyzed using the Statistical Package of the Social Sciences (SPSS) at 5% level of significance and 95% confidence interval.

Results: The following constituted the largest proportion of the study cohort: 20-29 year age group (40.6%), males (54%), unemployed (53.4%), those whose highest academic attainment was primary education (39.3%), urban dwellers (54.4%), singles i.e, unmarried (49.3%) and Christians (59.4%).

Conclusion: For the improvement of mental health services, adequate information about demography is the first step towards creating novel mental health initiatives that will benefit a greater number of patients.

INTRODUCTION

Data on rates of inpatient admission and treatment of mentally ill patients is an invaluable tool for formulating credible policies for the effective management of the mentally ill. It is also a valid indicator for underlying characteristics of various medico-legal frameworks, especially the National Mental Health Care Laws. Unfortunately, despite the growing international mental health law debate, sound data on the international practice of compulsory admission are scarce [1]. This grave situation is even truer for undeveloped nations including Nigeria compared with the reverse. Most of the few published international comparisons in this area include only selected nations [2] and they are mostly retrospective studies.

Even though some studies have identified some socio-demographic characteristics as valuable predictive factors that increase the risk of being admitted involuntarily into a psychiatric hospital [3], some others reported contradictory findings [4].

These controversial results may be as a result of an inter-play of a number of factors which are of socio-political, religious, cultural, economical, methodological and medical dimensions.

This study is prospective in nature and aims to examine the epidemiology of psychiatric in-patients' admission over a 13 month period at the Jos University Teaching Hospital, Nigeria. This will help identify patients' clinical and socio-demographic characteristics associated with this type of attendance. It will aid comparison with similar studies done elsewhere and the knowledge derived will assist in guiding health care providers in advocating for and managing the mentally ill effectively in this part of the world.

METHODOLOGY

This prospective cross-sectional study of 298 psychiatric in patients admitted into the Jos University Teaching Hospital (JUTH) was carried out within a period of thirteen months. It is important to note that what is presented in this paper "Epidemiology of psychiatric in patient admission over a 13 month period in Jos University of Teaching Hospital" is part of that larger study.

Instruments
For this study, the instruments that were employed were:
- A self designed, semi-structured, self administered questionnaire containing socio-demographic and psychiatric illness variables. The self designed questionnaire was translated into Hausa using a back-translation method for patients who could not communicate in English in the environment.
The international classification of disease 10th Edition (ICD 10)
- The ICD 10 is a comprehensive classification system of medical conditions and mental disorders. It is one of the official medical and psychiatric nosology used throughout most of the world.

Procedure
Before the commencement of this study, approval of the ethical committee of the institution was sought and informed consent obtained from the patients to be involved in the research. Where the patient was not in a position to give consent, owing to his or her mental status at the point of admission consent was sought from a reliable relation.

The process entailed giving adequate information to the patients and relations. Every patient was informed that he/she had the right to participate or withdraw from the study at any time without any risk to his/her treatment.
The patients were admitted into the psychiatric wards of JUTH subsequent to a careful clinical assessment and diagnosis based on the ICD-10 criteria. The questionnaire containing socio demographic and psychiatric illness variables was administered to each subject. Patients with delusion and dementia were excluded from the study because of their clinically significant deficit in cognition or memory which would affect interview, assessment and conclusions about their behavior.

Data analysis
The data was analyzed using the Statistical Package for Social Sciences (SPSS, 15th version) at 5% level of significance and 95% confidence interval. Frequency tables were employed to display the distribution of the patients based on socio-demographic characteristics.

Chi-square test was used to test for significance between categorical variables.

RESULTS

Out of three hundred subjects enlisted in this study, 298 completed it and were hence assessed males 161(54%); females: 137(46%).

Table 1 shows the age distribution of the patients. The males were younger at presentation than the females. The mean ages of both males and females were 32.2 11.0 years and 33.311.8 years respectively; and the difference between the two means is not statistically significant (t = 0.09, df=296, p>0.05). The sample was made up of relatively young people, mean age (32.8 11.4 year). The age group 20-29 year (40.6%) constituted the largest population for both males and females (46.6% and 33.6% respectively).

One hundred and fifty-one (53.4%) of the patients were unemployed (47.8% of the males and 59.9% of the females) and they constituted the majority. Skilled workers were the least 20(6.7%). There is no significant association between unemployment and gender (X^2=4.98, df=2, p>0.05); (see table 2). 117(39.3%) of the patients had primary education and this constituted the largest group, as compared to 24(8.0%) that had tertiary education which is the smallest category. The largest proportion of the males 73(45.3%) had primary education while the largest proportion of the females 48(35.0%) had secondary education. One hundred and nineteen of the males were educated compared

to 106 of the females but there is no significant association between education and gender ($x2=2.567$, $df=4$, $p>0.05$) (see table 3).

Table 4 shows the distribution of the patients' places of abode. More patients lived in urban areas 162 (54.4%), than in the rural areas 136(45.6%). There is no significant association between gender and place of abode. ($X^2=3.791$, $df=7$, $p>0.05$).

Furthermore, among the cohort, there were more Christians 177(59.4%) than Muslims 104(34.9%) while a few were traditional worshippers 17(5.7%). There is no significant association between gender and religion ($X^2= 5.956$, $df=3$, $p>0.05$).

The single constituted the largest group (49.3%) for both genders (males 84(52.2%); females 63(46.0%). Among the males, the smallest group was the divorced/separated 11(6.89%). For the females, it was the widows 12(8.8%). There is no significant association between gender and marital status. ($x2= 2.531$, $df=3$, $p>0.05$) (see table 6)
Table 7 shows the distribution of the patients by diagnostic categories. The most predominant diagnosis among the males was schizophrenia 43(26.7%) while for the females it was depression 46(33.6%).

DISCUSSION
In recent years, a number of initiatives have been developed to improve outcomes and experience for patients attending psychiatric Hospital [5].

This is partly because of concerns about the quality of care for this patient group [6], but also the need to ensure parity response to mental and physical health emergencies [7].

Our results showed that above 298 patients were admitted in the Jos University Teaching Hospital over a 13 month period. This does not represent the full complement of patients that attended the hospital within this period. This is because many others were treated on outpatient basis. Nevertheless when one considers that this Hospital serves as a catchment area for more than twenty million people, one can say that the use of this mental health facility by the people is poor. This is not surprising when one considers the negative impact of stigma towards the mentally ill on the population especially in the underdeveloped world [8, 9].

Although many effective mental health interventions are available, people often do not seek out the care they need. In fact in 2011, it has been reported that only 59% of individuals with mental illness reported receiving care and this figure is far less in the undeveloped world [8]. Stereotypes depicting people with mental illness as being dangerous, unpredictable, responsible for their illness or generally incompetent can lead to active discrimination which can became internalized in the patient with negative consequences or become institutionalized hindering the patients from seeking help [8].

Considering that our society is predominantly an illiterate one and a greater percentage of the populace resides in the rural area, the greater proportion of the cohort who paradoxically resides in the urban area underscores the fact that a greater chunk of our people are yet to benefit from our mental health campaign, facilities and expertise. This underlines the need for more effective means of reaching the rural populace. It highlights the burden of unmet need in the care of the mentally ill in the undeveloped world.

A number of factors are culpable; including illiteracy, poverty, scarcity of mental health facilities and manpower as well as weak advocacy for the mentally ill and a weak or almost non-existent strategy for identifying and referring the mentally ill from the rural areas to appropriate mental health facilities for qualitative care.

Worse still, ignorance and myth solely based on tradition and superstition have affected negatively the prompt access to care by sufferers and by extension the effective management of these patients in this part of the world [10]. The need to create and change public policy to reduce the stigma of mental illness is huge and imperative [11].

Consequently, the need to step up regular public enlightenment programmes to educate the public concerning mental illness and increase advocacy for these patients cannot be overemphasized.

An eclectic approach towards advocacy for the mentally ill is indicated. This should involve all stake holders and opinion leaders, including religious and traditional rulers. This will help mitigate the impact of stigma and improve hospital attendance. The most predominant diagnosis among the males was schizophrenia while that of females was depression. This finding is in consonance with results from other studies [12, 13, 14].

CONCLUSION
For the improvement of mental health services, high quality information about the demography of patients attending the hospital is the first step towards ensuring that services are designed appropriately for the benefit of the patients.

Limitation
The study did not explore the impact of psychosocial factors on the epidemiological results obtained here. This is a limitation.

Table 1: Age Distribution Of Patients

	Male		Female		Total	
	n=161	%	n=137	%	n=298	%
Age (years)						
10-19	8	5.0	17	12.4	25	8.4
20-29	75	46.6	46	33.6	121	40.6
30-39	41	25.5	42	30.6	83	27.9
40-49	21	13.0	16	11.7	37	12.4
50-59	14	8.7	12	8.8	26	8.7
60	2	1.2	4	2.9	6	2.0
Total	**161**	**100**	**137**	**100**	**298**	**100**

Table 2: Patients' Occupation Groups

N=298

	SEX					
	Male	Female	Total			
	n=161	%	n=137	%	n=298	%
Unemployed	77	47.8	82	59.9	159	53.4
Peasants farmers	31	19.3	9	6.6	40	13.4
Semi-skilled workers	31	19.3	18	13.1	49	16.4
Students	11	6.8	19	13.8	30	10.1
Skilled workers	11	6.8	9	6.6	20	6.7
Total	**161**	**100**	**137**	**100**	**298**	**100**

Table 3: Patients' Occupation Groups

N=298

	SEX					
	Male	Female	Total			
	n=161	%	n=137	%	n=298	%
EDUCATION						
No formal education	42	26.1	31	22.6	73	24.5
Primary education	73	45.3	44	32.2	117	39.3
Secondary education	36	22.4	48	35.0	84	28.2
Tertiary education	10	6.2	14	10.2	24	8.0
Total	**161**	**100**	**137**	**100**	**298**	**100**

Table 4: Patients' Places Of Abode

Total N=298

	SEX					
Male	Female		Total			
	n=161	%	n=137	%	n=298	%
PLACE OF ABODE						
Urban	80	49.7	82	59.9	162	54.4
Rural	81	50.3	55	40.1	136	45.6
Total	**161**	**100**	**137**	**100**	**298**	**100**

Table 5: *Distribution* **Of The Patients By Their Religion**

Total N=298

	SEX					
Male	Female		Total			
	n=161	%	n=137	%	n=298	%
RELIGION						
Islam	64	39.8	40	29.2	104	34.9
Christian	87	54	90	65.7	177	59.4
Traditional	10	6.2	7	5.1	17	5.7
Total	**161**	**100**	**137**	**100**	**298**	**100**

Table 6: Patients' Marital Status

Total N=298

	SEX					
Male	Female		Total			
	n=161	%	n=137	%	n=298	%
MARITAL STATUS						
Single	84	52.2	63	46.0	147	49.3
Married	52	32.3	46	33.6	98	32.9
Divorced/ separated	11	6.8	16	11.6	27	9.1
Widowed	14	8.7	12	8.8	26	8.7
Total	**161**	**100**	**137**	**100**	**298**	**100**

Table 7: Distribution Of The Patients By Diagnostic Categories

TOTAL N=298

	SEX					
Male	Female		Total			
DIAGNOSIS	n=161	%	n=137	%	n=298	%
Depression	42	26.1	46	33.6	88	29.5
Schizophrenia	32	19.9	17	12.4	49	16.4
Mania	32	19.9	17	12.4	49	16.4
Acute psychotic disorder	18	11.2	15	10.9	33	11.1
Substance use disorder	26	16.1	15	10.9	41	13.8
Total	**161**	**100**	**137**	**100**	**298**	**100**

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