International Academy of Science,
Engineering and Technology
IASET   Connecting Researchers; Nurturing Innovations

PATTERN OF PSYCHIATRIC PRESENTATIONS IN A PRIVATE
SPECIALIST HOSPITAL IN OSOGBO, OSUN STATE

EEGUNRANTI BA[1], IBIGBAMI OLANREWAJU[2] & FALADE JOSHUA[3]

[1]Department of Psychiatry, College of Health Sciences, Ladoke Akintola University of
Technology, Isale-Osun, Osogbo, Osun State, Nigeria

[2]Mental Health Clinic, State Specialist Hospital, Asubiaro, Osogbo, Osun State, Nigeria

[3]Department of Psychiatry, LAUTECH Teaching Hospital, Idi-Seke, Osogbo, Osun State, Nigeria

ABSTRACT

Background

In spite of the challenges of stigma and low level of awareness associated with mental health and mental health care service delivery in Nigeria, venturing into private practice remains one of the options of mental health professionals. Our study explored the pattern of psychiatric presentations in a private specialist hospital in Osogbo, South Western Nigeria over a period of 5 years (2010-2015).

Aim:

Review the pattern of presentations of clients with psychiatric illness to Royal City Specialist Hospital, Aderin, Osogbo, Osun State over a period of 5 Years.

Methods

The hospital records of patients who have been assessed within the hospital were reviewed. Information on their socio-demographic and health related characteristics were extracted from the case files and analyzed.

Results

`Over a period of 5 years, a total of 282 patients with mental health challenges have made use of the hospital with 34 (12.1%) still current users of the service. There was a slight male predominance (51.4%). The age of clients ranged from 7-100 years, with a mean of 37.65 years. A total of 16 (5.7%) of the clients were less than or equal to 19 years of age and the age bracket with the highest number of clients was 20-45 years (203; 72%). Majority of the patients (256/90.8%) presented on their own without referrals. The primary informants include the patients (165/58.5%), spouse (16/5.7%), Son/daughter (21/7.4%). The commonest presentation was poor sleep (180/63.8%) while the commonest diagnosis was Schizophrenia (61/21.6%). A total of 8 clients were discharged from the clinic while 242 (85.8%) had defaulted from follow up. Number of visits before defaulting ranged from 1- 6 visits.

Conclusion

Specialist Psychiatric service delivery in private hospitals remains one of the ways of meeting the mental health needs of mentally ill person. However, there is a need to properly explore the reasons for the defaults of the clients.

KEYWORDS: Private Specialist Hospital; Psychiatric Presentations

INTRODUCTION

The prevalence and correlates of psychiatric illnesses in the developing countries of the world has remained a major issue for discussion among world leading policy makers on health matters [1, 2]. Specifically, in Nigeria where it is generally accepted that the Nigerian population is steadily evolving from the simple, protective and traditional environments to the complex, heterogeneous and less protective modern ones, unemployment, economic and political instability, inflation, overcrowding, crime, divorce, broken homes, prostitution, drug addiction and lack of educational opportunities all seem to be prevalent [3]. The aforementioned factors have been shown to be associated with mental illness. The 2003 mental health situation analysis in Nigeria reported that the prevalence of mental illness is 20%. Stigma and institutional problem are seriously plaguing mental illness [4]. It is unfortunate that mental illness is not viewed with the concern it should be, perhaps this is due to the fact that, in most instances, mental illness is a disabling rather than a, killing illness, [5, 6].

Nigeria as a developing nation has few mental health specialist [7]. The country's health care system has suffered multiple down falls in terms of health care delivery [8, 9]. The world health organization in 2011 reported that bulk of psychiatric services is provided by the eight regional psychiatric hospitals and the departments of psychiatry in some universities. A number of general hospitals also provide psychiatric services. Specialist mental health care remains limited, with the ratio of psychiatric beds being about 0.4 per 100,000 persons, while health professionals like psychologists and social workers are about 0.14 per 100,000 persons in Lower-Middle Income Countries of the world. It has been reported that the bulk (approximately 70%) of mental health service provision is delivered through non-orthodox means such as religious organizations and traditional healer [10]. This therefore justifies the need for more research exploring services and their role in delivering quality mental health care.

Public health services have received a lot of attention in developing countries while the private health care system remains neglected. Despite the attention given to public health services, they remain severely under-resourced, resulting into many problems and limitations in their service provision [11]. A better alternative or supporter to public health care system is the private health care system. They generally include both for-profit and non-profit providers and are not under government control [12]. Several studies have compared effectiveness, cost implications and service delivery of public and private health care sectors [13, 14]. These show that public health care sectors lack timeliness and hospitality towards patient but the private health care sectors were better organized, responsible and sustainable [14].

A Study in Sudan revealed that private health care provision is growing and plays a significant role in providing health services [15]. The major strength of private hospitals is provision of quality services with reliable support staff, comfortable environment for the patients and good management. The major constraints facing private hospitals include absence of direct support by the government to this type of investment, weak regulatory role by regulatory bodies, and heavy taxes and fees imposed by the government [15]. Private health care sector has been growing rapidly in Nigeria, it has been found to buffer inadequacies in the public provision of services at all levels of care [16]. Information on the size, structures and hospital bills of private health care market in many developing countries remain scanty. This is worse in Nigeria [17, 18]. This is partly due to the strong governmental commitment to the public health care sectors and the tendency for policy-makers to view private sector as a contestant rather than associate in health development. This leads to concentration of local research effort on the public health sector as seen in earlier reports [19, 20], which indeed revealed major inequalities in the distribution of health care resources nationwide. In Nigeria, private practices are concentrated in

the industrial and commercial parts of the country which include Lagos, Oyo, Imo, Anambra, Edo, Rivers and Kaduna states accounting for about 80% of the total number of registered facilities and beds in 1991 [16].

Studies have been done in Nigeria to explore the patterns of psychiatric presentations. In a Federal Neuropsychiatric Specialized Hospital located in Uselu, Benin City, South-south geopolitical zone of the country, Ichue reported a predominance of male patients. Patients of both sexes under the age of 30 years constituted the majority. With regard to the educational attainment of the patients, greater percentage did not proceed beyond primary education [21]. In Abeokuta, South-western Nigeria, Odejide also reported male predominance among patients admitted, with single males having higher rates of admission than married males in contrast with the female subjects where married females predominated over single females [22]. A five-year retrospective study in Ilorin, North-central Nigeria revealed more female patients on admission, 20-40 years were majorly admitted and schizophrenia accounted for majority of cases [23]. Another study in Uganda revealed that males are perhaps more at psychiatric presentation than their female counterparts [24]. Accessing private psychiatric services remain an option for individuals who desire psychiatric assessment and need some privacy with prompt services [16]. The main barrier to accessing such services might be the cost implication of such services. It is imperative to note that the pattern of presentation and consultation might be different from what is found in psychiatric services that are provided by public or government establishments.

Several studies have explored psychiatric presentations in government owned or public services in Nigeria. To the best of our knowledge, this is the first study to present psychiatric presentations in a private hospital setting in South-western Nigeria. This will go a long way to justify the need for specialists in the field of mental health to consider the establishment of private Specialist psychiatric services as a means of providing more job opportunities for Psychiatrists and further bridge the gap in mental health care service delivery.

Methods

The hospital records of patients who have been assessed within the hospital were reviewed. Information on their socio-demographic and health related characteristics were extracted from the case files and analyzed using SPSS version 16.

RESULTS

Table 1 shows the socio-demographic characteristics of the client records included in this study. The total number of patient records that were reviewed and included in this study was 279. There was slight male preponderance 145(52.5%), while most of the subjects were from Osun State (237/84.9%) and from the Yoruba tribe (271/97.1%). The age of the of the client ranges from 7-100 years with mean age of 37.65 years (SD =15.9). Majority of the subject were within the age range of 20-45 years (203/72.8%). There was a positive family history of mental illness in 9(3.3%) of the subjects, while there was a previous history of mental illness in 93 of the subjects prior to their presentation. There was a past history of substance use in 28 (%) of the subjects.

Table 1: Socio-Demographic Demonstration of Clients

Socio-Demographic Demonstration of Clients		
Gender	Parameter	Frequency (%)
	Male	145 (52.5)
	Female	131(47.5)
State of Origin		

Table 1: Contd.,		
	Osun	237(84.9)
	Ondo	5(1.8)
	Oyo	17(6.1)
	Others	20(7.2)
Tribe		
	Yoruba	271(97.1)
	Ibo	7(2.5)
	Others	1(0.4)
Informant		
	Patient	165(61.1)
	Spouse	16(5.9)
	Son/Daughter	21(7.8)
	Other Relatives	67(24.8)
	Friend	1(0.4)
Age(years)		
	1 – 19	16(5.7)
	20 – 45	203(72.8)
	46 and above	60(21.3)
Positive Family History of Mental Illness		9(3.3)
Previous History of Mental Illness		93(33.7)
Previous Form of Treatment		
	Psychiatric	9(3.2)
	Other Medical	78(28)
	Spiritual	21(7.5)
Previous History of Substance use		
	Alcohol	7(2.5)
	Cannabis	20(7.3)
	Others	1(0.4)
	None	24(89.8)

The commonest presentation was poor sleep which accounted for 176 (64.0%) of the presentations followed by hallucinations 104 (37.8%) then aggression 67 (24.4%) the least was bedwetting 2(0.7%). The commonest diagnosis was schizophrenia and related psychosis (163.58.4%), Depressive disorders were 67(24%), Bipolar affective disorder 21(7.5%,) Mental Behavoiural Disorder due to psychoactive substance 14(5%), organic mental disorder 8(2.9%), Anxiety and related disorder 2(0.7%), seizure 3(1.1%), Post-partum mental disorder 1(0.4 %). These are shown in Table 2

Table 2: Symptom Variables of the Clients

S/no	Symptoms	Total	Male	Female	X^2/Pvalue
1.	Crawling sensation	13(4.7%)	4	9	2.4/0.104
2.	Heat in the body	10(3.6%)	2	8	**4.46/0.035**
3.	Weepy spells	39(14.2%)	10	29	**13.38/0.000**
4.	Hallucinations	104(37.8%)	53	51	0.209/0.647
5.	Poor Sleep	176 (64.0%)	93	83	0.003/0.960
6.	Undue sadness	15(5.5%)	7	8	0.234/0.629
7.	Elation/undue Happiness	10(3.6%)	8	2	3.097/0.078

Table 2: Contd.,

8.	Irritability	9(3.3%)	3	6	**1.404/0.23**
9.	Aggression	67(24.4%)	43	24	**4.66/0.031**
10.	Aimless wandering	27(9.8%)	18	9	2.396/0.122
11.	Reckless spending	4(1.4%)	3	1	0.821/0.365
12.	Talking to self	45(16.3)	21	24	0.743/0.381
13.	Talkativeness	23(8.3)	7	16	**4.915/0.027**
14.	Poor concentration	3(1.1%)	0	3	3.35/0.067
15.	Easy fatigability	3(1.1%)	2	1	0.236/0.627
16.	lack of interest	22(8.0)	4	18	**11.315/0.001**
17.	Reduced Energy	5(1.8)	1	4	2.16/0.14
18.	Odd behavior	65(23.6)	49	16	17.8/0.**000**
19.	Stealing	4(1.5)	3	1	0.808/0.369
20	Selling Properties				
21	Suicidal thoughts	14(5.1%)	9	5	0.816/0.366
22	Convulsion	3(1.1)	2	1	0.243/0.622
23	Bedwetting	2(0.7)	1	1	0.005/0.943
24	Fearfulness	14(5.1)	2	12	**8.653/0.003**
25	Withdraw to self	22(8.0%)	11	11	0.062/0.804
26	Irrational talk	48(17.4)	30	18	2.313/0.128

Our study explored the pattern of diagnosis across the age categories of the clients. The X^2 (24.789) was found to be significant (P value =0.032). Among the subjects who had organic mental disorders, a greater portion (75%) were above 45 years old, while subjects who had schizophrenia and related psychosis, depression and related disorders, Bipolar affective disorder, Mental and behavioral disorders due to psychoactive substance use were within the age range of 20-4 5 years of age (74.2%, 71.2%, 81%, and 78.6% respectively). All the clients who had anxiety disorders and post partum mental illness were also within the age range of 20-45 years. These are shown in the Table 3.

Our study also explored the pattern of diagnosis across the need for admission. The X^2 (15.078) was found to be significant (P value =0.035). The highest proportion of clients admitted were among the clients with a diagnosis of Mental and Behavioral Disorders due to Psychoactive Substance Use among which 71.4% of them were admitted. This was followed by clients with a diagnosis of schizophrenia and related psychosis among which 62.1% of them were admitted. Others are as shown in the Table 3.

Table 3: Pattern of Diagnostic Categories of Patients

Pattern of Diagnostic Categories of Patients	Frequency	Valid percent	Cumulative Percent
Schizophrenia and related psychosis	163	58.4	58.4
Depressive Disorders	67	24.0	82.4
Bipolar Affective Disorder and other related others	21	7.5	90.0
MBD due to Psychoactive substance use	14	5.0	95.0
Organic mental disorders	8	2.9	97.8
Anxiety and related disorders	2	0.7	98.6
Seizure Disorders	3	1.1	99.6
Post Partum Mental Disorder	1	0.4	100.0
Total	**279**	**100.0**	

About 9 (3.2%) had previous psychiatric treatment, 78 (28%) were treated for other medical condition while 21 (7.5%) had spiritual treatment before presentation. The duration of illness before presentation at the hospital ranged between 0.1 month and maximum was 240 months(20 years) with a mean of 8.02 (SD-29.9). The modal duration of

presentation was 1 month which was the duration of presentation with the highest frequency 70 subjects (24.8%). A total of 153 (54.3%) were admitted, 279 (99.6%) had biological investigation while 275 (97.5 %) were placed on medications. Co-morbidities were found in 33(11.7%). With regard to the outcome of the treatments, 242(87.7%) defaulted while 12.3% are currently still on treatment. Minimum and maximum duration before default was 1.00-6.00 (SD 1.56) in months (Table 4).The duration of follow up in month ranged from 0.25 to 60.00 (SD 12.20).

Table 4: Hospital visit Related Variables

Hospital Visit Related Variables	Minimum	Maximum	Mean	Std. Deviation
Duration of follow up (in months)	0.25	60.00	6.5587	12.19901
Number of visits before defaulting	1.00	6.00	2.4349	1.55749
Visit before discharge	1.00	6.00	5.8529	0.79694
Duration of present illness before presentation in months	0.10	240.00	8.0214	29.85882

Predictors of Admission

A logistic regression was performed to determine the predictors of admission. We explored age at presentation, gender, the symptoms at presentation, duration of illness before presentation and the diagnosis. The logistic regression model was statistically significant, $\chi2 = 23.219$, p =0.003. The model explained 0.62% (Nagelkerke R2) of the variance in the need for admission and correctly classified 81.9% of cases. The significant findings are presented in Table 5. The Clients who had suicidal thoughts were about 29 times more likely to be admitted than those that did not. While clients who presented with irrational talk had almost 5 times more chances to be admitted than those who did not. Also, the clients who presented with aggression were about 3 times more likely to be admitted than those who did not while those who presented with hallucinations were about 2.8 times more likely to be admitted. Clients who presented with undue sadness were about 0.083 times more likely to be admitted than those who did not.

Table 5: Symptoms that Predicted the Likelihood of Admission

			95% CI	
	P value	Exp B	Lower	Upper
Hallucination	0.019	2.791	1.187	6.564
Undue Sadness	0.043	0.083	0.008	0.927
Aggression	0.012	3.342	1.298	8.604
Suicidal Thoughts	0.007	28.96	2.472	339.209
Irrational Talk	0.011	4.99	1.432	17.359

DISCUSSIONS

Our study explored the pattern of presentations in a private Specialist Hospital over the period of 5 years. The finding of a total of 272 patients out of a total of 681 patients managed over the period shows that the recognition of private specialist hospitals and the services they offer is quite acceptable in the environment. It is expected that individuals who desire privacy and a bypass of the bottle-necks that could be encountered within the formal referral system would eagerly opt to receive treatment in such facilities. Our finding of a higher number of male subjects is quite similar to what has been found by previous researchers in other settings [21]. Although others studies have reported a higher prevalence of female patients [25], all these studies actually show slight predominance of either gender.

A greater number of the clients were within the age range of 20-45 years. This is the age range that includes young adults and the lower border of the middle age. Studies across diverse populations have shown that this is the age range

where most types of mental illnesses tend to peak [26, 27], which makes our finding to be comparable to findings of studies among other populations.

The commonest presentation among the clients was poor sleep this is in keeping with that obtained from previous studies [28, 29]. Sleep difficulties have been found to be as much as 11% in Finland to 21% in Japan [30]. Ogunremi found a prevalence of 13.9% [31] among clients who present for psychiatric consultations. Schizophrenia and related psychosis were the commonest diagnosis made in the hospital among patients with psychiatric illnesses; this is similar to findings from other studies [25]. Schizophrenia and related psychosis are quite easy to diagnose and the prevalence of schizophrenia is relatively high in most parts of the world (1%).

A greater number of the clients had received other medical treatment before presentation. This could be due to the fact that a lot of these clients probably seek for consultation through other hospital settings or had first attempted other forms of medical treatments prior to their presentation towards seeking a more private consultation for their challenges. A recent study [32] has shown that a great number of patients with severe mental disorders still make use of traditional and other religious consultations before coming in contact with orthodox mental health services. This is different from what is found in our study.

Our study also found that a greater proportion (75%) of the subjects above 45 years had organic mental disorders. This is due to the fact that the prevalence of dementia and other related organic illnesses (which include post-CVD challenges) tend to increase with increase in age and this might explain our finding. The other disorders were found to be more prevalent within the age group of 20-45 years of age. Some studies have shown that about three quarters of all lifetime disorders tend to begin by the mid 20s [27]. A lot might begin earlier, but might not be brought to clinical attention due to lesser severity.

The default rate in our study was quite high (87.7%). These might be due to the cost implication of treatments given to the clients. Among factors that lead to clients defaulting from treatment schedules, financial constraints have been found to be a major issue among clients who are not able to attend clinic [33]. It is necessary to ensure that measures towards reducing the cost of treatment should be put in place towards ensuring compliance and reducing defaults. The positive correlations between number of visits and the duration of the follow up is expected due to the fact that clients who stay much longer on follow up will eventually have a higher number of visits.

The strongest predictor of admissions among the study subjects was suicidal thoughts. This is expected due to the fact that in standard psychiatric practice, suicidality is a strong indication for in-patient care. The need to admit clients most of the time is predicated on the need to protect the client and/or others from potentially harmful situations. Other predictors in this study include, irrational talk, aggression, hallucinations and undue sadness which are all symptoms associated with major mental illnesses. One might speculate that the severity of the clients' illness among this study population can indeed be a major pivot for the decision to either admit or treat as an out-patient

CONCLUSIONS

Specialist psychiatric service delivery in private hospitals remains one of the ways of meeting the mental health needs of mentally ill persons and further bridging the gap in mental health care service delivery in Nigeria. It will go a long way of providing timely, efficient and user friendly service for clients. The severity of the symptoms is a good indicator of the likelihood for admission while the cost implication might be a major trigger for clients to default from treatment. There

is a need for more studies evaluating private psychiatric services in other to subject such services to scrutiny towards improving their services in meeting the needs of clients.

REFERENCES

1. Lauber, C., Rosssler,W. Stigma towards people with mental illness in developing countries in Asia. *Int Rev Psychiatry*, 2007, 19, 157-178.

2. Jacob, K.S. Community care for people with mental disorders in developing countries: problem and possible solutions. *The British Journal of Psychiatry*, 2001, 178(4), 296-298.

3. Lergo, T. Pattern of psychiatric illness: A study in Kaduna Psychiatric Facilities. *Journal of Social Development in Africa,* 1989. 4(1):47-59

4. Byrne, P. Stigma of mental illness and way of diminishing it. *The British Journal of Psychiatry*, 2006, 1, 65 -72

5. Ukpong, D.I., Abasiubong, F. Stigmatizing attitudes towards the mentally ill: A survey in a Nigerian university teaching hospital. *South African Journal of Psychiatry*, 2010, 16(2), 56-60.

6. Corrigan, P.W., Watson, A.C. Understanding the impact of stigma on people with mental illness. *World Psychiatry*, 2002, 1(1), 16-20.

7. Odejide, O., Morakinyo, J. Mental health and primary care in Nigeria. *World Psychiatry*, 2003, 2(1), 164-165.

8. Welcome, M.O. The Nigerian health care system: Need for integrating adequate medical intelligence and surveillance system. *Journal of Pharmacy and Bioallied sciences*, 2011, 3(4), 470-478.

9. Onwujekwe, O., Onoka, C., Uguru, N., Nnenna, T., at al. Preferences for benefit packages for community–based health insurance: An explorative study in Nigeria. *BMC Health Services Research,* 2010, 10, 162.

10. Gureje, O., Lasebikan, V.O., Kola, L. Lifetime and 12-month prevalence of mental disorders in the Nigerian Survey of Mental Health and Well-Being, *British Journal of Psychiatry*, 2006, 188, 465-471.

11. Smith, E, Brugha, R., Zwi, A. Working with Private Sector Providers for Better Health Care. An Introduction Guide. Option Consultancy Services Limited and London School of Hygiene and Tropical Medicine London, 2001.

12. Babiker, M.A. The impact of liberalization policies on health: Some evidence from the Sudan. Seminar Paper, no. 100. DSRC, University of Khartoum, 1996.

13. Slipicevic, O., Malicbegovic, A., Public and private sector in the health care system of the federation Bosnia and Herzegovnia: Policy and strategy. *Mater sociomed,* 2012, 24(1), 54-57.

14. Basu, S., Andrews, J., Kishore, S., Panjabi, R., Stuckler, D. Comparative Performance of Private and Public Healthcare Systems in Low- and Middle-Income Countries: A Systematic Review. *Pub med*., 2012, **1001244**.

15. Saeed, Y.A. The Potentialities of the Private Health Sector and its Role in Health Services Provision in the Sudan. 2011.

16. Ogunbekun, I., Ogunbekun, A., Orobato, N. Private health care in Nigeria: walking the tightrope. *Health policy*

and planning, 1999, 14(2), 174-181.

17. Howard, L.M. What are the financial resources for 'Health 2000'? *World Health Forum* 1981, 2(1), 23–9.

18. Akin, J.S, Birdsall, N.D., Ferranti, D., Financing health services in developing countries: An agenda for reform. A World Bank Policy Study, Washington, DC. 1987

19. Ityavyar, D. Health services inequalities in Nigeria. *Social Science and Medicine.* 1988, 27(11), 1223–35.

20. Okafor S.I. Policy and practice: The case of medical facilities in Nigeria. *Social Science and Medicine 1992,* 16(22), 1971–77

21. Ichue J I (1981) "Socio-Psychiatric Attributes of First Admissions: A Study of a Neuro-psychiatric Hospital, Uselu, Benin", unpublished B.Sc Thesis, Department of Sociology, Ahmadu Bello University, Zaria, Nigeria.

22. Odejide, O., Morakinyo, J. Mental health and primary care in Nigeria. *World Psychiatry*, 2003, 2(3), 164-165.

23. Issa, B.A., Yusuf, A.D., Ajiboye, P.O, et al. Pattern of psychiatric admission in Nigerian Teaching hospital: A 5-year retrospective study. *Research journal of medical sciences*, 2008, 2(5), 231-235.

24. Orley, J.A. Prospective Study of 372 Consecutive Admissions to Butabika Hospital, Kampala. *East African Medical Journal*, 1972, 49, 16-26.

25. Risal, A., Sharma, P.P. Psychiatric morbidity patterns in referred in-patients of other specialities. *J Nepal Med Assoc*, 2013, 52(189), 238-244.

26. Jones P.B. Adult mental disorders and their age at onset. *The British Journal of Psychiatry,* 2013, 202(54), 5-10.

27. Kessler, R.C., Berglund, P., Demier, O., Jin, R., Merikangas, R.K. Lifetime prevalence and age of onset distributions of DSM-IV disorders in the national co-morbidity survey replication. *JAMA psychiatry*, 2005, 62(6), 593-602.

28. Szelenberger, W., Soldatos, C. Sleep disorders in Psychiatric practice. *World psychiatry*, 2005, 4(3),186-190.

29. Ohayon, M., Roth, T. Place of chronic insomnia in the course of depressive and anxiety disorders. *J psychiatr Res*, 2003, 37, 9-15.

30. Mendelson, W.B., Roth, T., Cassella, J., Roehrs, T., Walsh, J.K., et al. The treatment of chronic insomnia: drug indications, chronic use and abuse liability. Summary of a 2001 New Clinical Drug Evaluation Unit meeting sympoium. *Sleep Med Rev*, 2004, 8, 7-17.

31. Ogunremi, O.O. The subjective sleep patterns and dreams of Nigerians. *Afr J Psychiat,* 1978, 3, 113-119.

32. Adeosun, I.I., Adegbohun, A.A., Adewumi, A.T., Jeje, O.O. The pathways to the first contact with mental health services among patients with schizophrenia in Lagos, Nigeria. *Schizophrenia Research and treatment,* 2013,Article I D 769161.

33. Adelufosi, A.O., Ogunwale, A., Adeponle, A.B., Abayomi, O. Pattern of attendance and predictors of default among Nigerian outpatients with schizophrenia. *African Journal of psychiatry,* 2013, 16, 283-287.