Prevalence and Correlates of Missed First Appointments among Outpatients at a Psychiatric Hospital in Nigeria

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Abstract

Background: Missed appointments are common in psychiatric practice. It compromises quality of care, results in poor treatment outcomes and drains financial resources. In Nigeria, where mental health services are poorly organized, missed appointments and its resultant consequences may be burdensome. **Aim:** This study sought to determine the prevalence and factors (sociodemographic and clinical) associated with missed clinic appointments at a regional psychiatric hospital. **Subjects and Methods:** A study on a cohort of patients attending the Outpatient Clinics for the first time between June and September 2011 was conducted. We interviewed each participant at their first presentation then tracked through case records to determine adherence to scheduled first clinic appointments after 4 weeks. A questionnaire was used in eliciting sociodemographic characteristics, clinical variables, and patient/caregiver satisfaction with treatment. Descriptive statistics were used to summarize the data and inferential statistics to test associations using the SPSS 16. **Results:** Three hundred and ten patients were recruited over the study period. The prevalence of missed first appointment was 32.6% (101/310). Participants who were single ($P = 0.04$), living alone ($P < 0.01$) or aggressive ($P < 0.01$) were more likely to miss their first appointment. However, having received previous treatment for a psychiatric illness ($P = 0.02$) and having comorbidity ($P = 0.05$) was associated with less likelihood to miss a first appointment. A binary logistic regression analysis showed that having received previous treatment independently predicted a less likelihood to miss first appointment ($P = 0.03$). **Conclusion:** Quite a proportion (32.6%) of patients attending outpatient clinics miss scheduled clinic appointments. Receiving previous psychiatric care predicted adherence to scheduled appointment.

Keywords: Missed appointments, Nigeria, Patients, Psychiatry

Introduction

Missing appointments is particularly common in psychiatry clinics[1] and presents a major challenge to the effective management of mental disorders.[2] It is generally accepted that twice as many patients miss appointments in psychiatry compared with patients in other medical specialties.[1,3] Missed appointments are associated with increased health costs due to illness exacerbation, frequent relapses, re-hospitalization, increased potential for assault, dangerous behaviors and self-harm.[1,4] Missed appointments also constitute a drain on financial resources and have compromised quality of care.[5]

With mental health services still poorly developed in Nigeria[6] the organization of orthodox psychiatric services is poor and rather uncoordinated.[7] The majority of the nation's population lack access to modern mental health services.[6] Most patients patronize traditional and faith based organizations (FBOs).[8] In view of the fact that mental health services at primary health care level in Nigeria is still poor, and health care is largely hospital-based, loss of patients to follow-up is a major problem in clinical practice.[9,10] It is therefore pertinent that proactive methods be employed to improve clinical outcomes.

There are few studies about defaulting from scheduled appointments in Nigeria.[2,9-11] Attempts at characterizing patients who default from scheduled appointments, and to

describe why they do so, have yielded inconsistent results.[12] However, younger age and male gender have been associated with missed appointments.[2,13-15] Unemployment and low socioeconomic status have been reported as correlates of missed appointments in the USA, Italy, and Spain[14,16] similar to local reports from studies in Nigeria.[2,9]

Findings regarding the possible effect of marital status in clinic attendance are inconclusive; with some researchers noting a significant relationship between "being married" and missed appointments[17] and others reporting "being single," divorced, unmarried or widowed as associated factors.[14,18] Kruse *et al*.[13] have reported a significant association between missed appointments and not taking psychotropic medications. Furthermore, a higher rate of missed appointments was noted among patients receiving pharmacological therapy alone as opposed to those receiving combined pharmacological and psychological therapy.[19] Stigma, substance abuse and type of diagnosis have all been identified as factors associated with increased rates of missed appointments.[20,21] A history of aggressiveness,[22] having comorbidity,[1,23] having a poor family support system and having no previous history of psychiatric disorder[14] have also been implicated. Treatment satisfaction in relation to keeping scheduled appointments and service utilization is important.[24] Satisfied patients are more likely to comply with treatment, keep follow-up appointments and utilize health services.[25]

This study aimed at examining the prevalence of missed first appointment among outpatients at a regional psychiatric hospital in Southern Nigeria, and its associated factors (social and clinical-related).

Subjects and Methods

Participants

Participants were patients aged between 18 and 64 years, attending the Outpatient Clinics of a regional psychiatric hospital in Southern Nigeria for the first time during the period of study. Patients who were admitted at the first visit or referred to other medical specialties were excluded from the study. A total of 310 participants were recruited between June and September 2011. The sample size was determined using an appropriate formula for proportions at 80% power.[26]

Measures/assessments

Sociodemographic and treatment satisfaction questionnaire:

A questionnaire to elicit the sociodemographic (age, gender, religion, level of education, and employment status), clinical characteristics and treatment satisfaction of the patients was designed by the authors. The treatment satisfaction component was used to collect information about treatment satisfaction: Difficulty getting to the treatment center, time spent waiting at the clinic before being attended to; availability/affordability of treatment prescribed during the visit, specifically whether the drugs prescribed were available in the hospital pharmacy or had to be purchased outside; whether the cost of the drugs were affordable by the patient/relative and satisfaction with interaction with attending clinician. The patients/relatives subjectively assessed whether their waiting time was too long or not. The instrument was adapted from a structured questionnaire designed by Iliyasu *et al*.[27] The treatment satisfaction questionnaire had a good face and content validity as well as good test-retest reliability.

An attendance record of the patients was used to determine the proportion of participants who missed their first appointment.

Clinical Global Impression Scale

This rating scale is a commonly used measure of symptom severity, treatment response, and the efficacy of treatments in treatment studies of patients with mental disorders.[28] It has three subscales namely Clinical Global Impression (CGI)-severity scale, CGI-improvement scale and CGI-efficacy index. The severity subscale has a 7-point scale for measuring illness severity. It requires the clinician to rate the severity of the patient's illness at the time of assessment, relative to the clinician's past experience with patients who have the same diagnosis. The patient is assessed on a range from normal, not at all ill to extremely ill.

Modified Overt Aggression Scale

This rating instrument is used for assessing aggressive behavior over the past week. It can be used to assess the nature and prevalence of aggression.[29] It has high inter-rater and test retest reliabilities. The Modified Overt Aggression Scale (MOAS) has four subscales, which assess verbal aggression, aggression against property, auto-aggression, and physical aggression. Each subscale has four degrees of severity levels. Higher scores indicate higher levels of aggression.

Predetermined checklist of comorbid conditions

This checklist of chronic comorbid condition was developed by the United States Center for Disease Control and Prevention.[30] It was adapted for use in the Ibadan Study of Ageing by Gureje *et al*.[31]

Pilot testing

The questionnaire and instruments was pilot tested among a sample of 20 patients to determine ease of understanding. The instruments were shown to have good face validity and reliability in similar clinical settings.

Study method

All new patients attending the Outpatient Clinics and had been assessed by a supervising consultant as having a mental illness were approached to be included in the study. The nature and purpose of the study was explained to patients and/or caregivers and written informed consent obtained. Following consent to participate, the authors administered the instrument as an exit interview. In cases where establishing rapport with the patient was difficult, we interviewed his/her caregiver. Each patient's case file was tracked and examined weeks later to identify those who missed their first appointment. In this study, missed appointments were classified as those who failed to keep their first appointment within 2 weeks after a scheduled date. A 2-week extension from the scheduled date was adopted after considering the various impediments, which patients/relatives may encounter in their efforts to avail themselves of health care services in Nigeria, viz.: Logistics and financial constraints.

Ethical Consideration

Ethical clearance was obtained from the Ethics Committee of the Hospital after a review of the study protocol. Each participant was assured anonymity and confidentiality.

Data analysis

Data collected were analyzed using The Statistical Package for Social Sciences (SPSS), version 16, Chicago, IL, USA. Descriptive statistics was used to summarize the data. Categorical and continuous variables were analyzed using the Chi-squared and *t*-tests, respectively. A binary logistic regression model was used to identify predictors of missed appointments. The dependent variable was missed first appointment and the independent variable was sociodemographic and clinical variables that were significantly associated with missed first appointment on bivariate analysis. Statistical significance was set at $P < 0.05$.

Results

Sociodemographic characteristics of participants

Of the 310 patients recruited within the study period, the mean age (SD) was 34.3 (12.9) years. Over half were males (164/310; 52.9%) and significantly younger than their female counterparts ($P < 0.001$). A vast majority (289/310; 93.2%) were Christians. Over half (166/310; 53.5%) were unemployed and lived within the city, 168/310; 54.2% was single and a third (107/310; 34.5%) were married. Majority was not living alone (278/310; 89.7%). Participants lived with their parents (133/310; 47.8%), relatives (102/310; 36.7%), or siblings (29/310; 10.4%). A majority (289/310; 93.2%) were accompanied by a relative or friend to hospital; 127/310; 43.9% of which were parents, followed by siblings (65/310; 22.5%), other relatives (62/310; 21.5%).

Clinical characteristics of respondents

The average duration of illness before presentation was 128.8 weeks. Nearly, two-third (195/310; 62.9%) had been ill for periods >12 weeks before presentation, while 144/310; 46.5% had received some form of treatment elsewhere. A significant majority (104/144; 72.2%) had previously received care at either a traditional home, or a spiritual or FBO, compared with the minority (40/144; 27.8%) who had been receiving treatment at a nonpsychiatric medical/orthodox facility prior to their presentation.

The most common diagnoses were the schizophrenias (128/310; 41.3%), followed by mood/affective disorders (101/310; 32.6%) and substance use disorders (58/310; 18.7%). A medical comorbidity was reported in a minority (22/310; 7.1%) and the medical conditions noted were hypertension ($n = 18$), heart disease ($n = 2$) and cancer ($n = 1$). The majority (183/310; 59%) were assessed as moderately ill, using the CGI Scale. A majority (261/310; 84.4%) were assessed as not being aggressive using the MOAS, 62/310; 20% of respondents reported having some difficulty accessing the hospital, 304/310; 98.1% reported that the medications were affordable. Similarly, a majority (302/310; 97.4%) reported that medications were easily available. Forty-three (13.9%) complained of the waiting time being too long, though 304/310; 98.1% reported they were satisfied with patient-clinician interaction.

Prevalence and correlates of missed first appointments

About a third (101/310; 32.6%) of respondents missed their scheduled first clinic appointment. Those who lived alone were more likely to miss their first appointment ($P < 0.01$). In contrast, those who had received any type of treatment prior to presentation at this hospital were less likely to miss their appointment ($P = 0.02$). Furthermore, respondents who had comorbidity were less likely to miss their first appointment ($P = 0.05$). Participants with psychotic disorders (schizophrenia and affective disorders) were also more likely to miss their first appointment compared to nonpsychotic disorders (Substance use, neurotic and stress-related, behavioral syndromes) ($P < 0.001$) [Table 1].

Respondents who missed clinic appointments were significantly more likely to have higher total scores on the MOAS ($P = 0.05$) as well as higher aggression against property scores on the MOAS subscale ($P < 0.01$). We found no significant associations between treatment satisfaction and missed first appointments.

Predictors of missed appointments among respondents

When significant associations were entered into a logistic regression model, with missed first appointment as the dependent variable, participants who had received previous treatment elsewhere were less likely to miss their first appointment ($P = 0.03$) [Table 2].

Table 1: Contingency tables showing comparison of clinical characteristics of respondents and missed first appointments

Variables	Missed first appointment?		Statistic
	Yes (*n*=101)	No (*n*=209)	
Any prior treatment			
Yes	34	110	χ^2=9.849, df=1, *P*<0.02
Living alone			
Yes	17	15	χ^2=6.857, df=1, *P*<0.01
Prior admission (*n*=144)			
Yes	7	27	χ^2=0.156, df=1, *P*=0.69
Medical comorbidity			
Yes	3	19	χ^2=3.869, df=1, *P*<0.05
CGI			
Normal/mild	12	25	χ^2=0.000, df=1, *P*=0.98
Moderate/severe	89	184	
Diagnosis			
Psychotic (schizophrenia and mood disorders)	164	64	χ^2=8.423, df=1, *P*<0.01
Nonpsychotic (substance use and others)	44	37	

CGI: Clinical global impression

Table 2: Binary logistic regression analysis with the dependent variable of missed appointment and significantly associated categorical and continuous independent variables

Variables	*B*	SE	Wald	df	*P*
Marital status	−21.809	4.020	7.398	5	0.19
Living alone	0.594	0.413	2.061	1	0.15
Previous treatment	−0.811	0.269	9.094	1	0.03*
Comorbidity	0.018	0.067	0.075	1	0.79
MOAS total	−1.075	0.670	2.577	1	0.79
MOAS verbal	−0.260	0.150	2.981	1	0.08

*Statistically significant. MOAS: Modified Overt Aggression Scale, SE: Standard error

Discussion

This study shows that missing scheduled first clinic appointments is common in mental health services in Benin City, Nigeria. The prevalence of missed first appointment was 32.6%. Missed first appointments was associated with being single, living alone, aggressive behavior, or having a psychotic disorder. Conversely, having previous treatment elsewhere before reporting or having medical comorbidity was associated with less likelihood of missing a first appointment. The rate of missed first appointments observed in this study falls within the range of 17 and 46% observed in other reports.[1,2,13,32,33] The differences in rates may be due to methodological factors such as operational criteria for missed appointment as well as differences in the study population.

Patients may default from scheduled appointments for various reasons which include feeling well, seeking alternative care when there is no symptom remission, feeling too unwell, forgetting appointment dates, poor insight, lack of finances to come to the hospital, or nonavailability of a relative to bring the patient to the hospital.[34] Respondents who were single and living alone were significantly more likely to miss their first appointment. Though marital status in relation to defaulting has yielded inconsistent results in a number of studies,[17,18] an individual who is single may lack the necessary support, which a spouse may provide in encouraging clinic attendance. Living alone denies the individual the needed emotional and social support and may not have anyone to bring him to the hospital when ill. An earlier study found an association between missed appointments and age, gender, religion, or employment.[13] We observed no such associations in this study. Further studies which will include samples from primary care settings and the community may be needed before conclusions can be drawn on these observed differences.

The long duration of untreated illness (DUI) observed shows significant delay by patients/caregivers before presentation for treatment, with a majority (62.9%) presenting after 12 weeks from illness onset and was similar to a study in Jos by Ikwuagwu *et al.*[11] However, there was no significant relationship between DUI and missed appointments in this study. Delay before reporting for treatment may be due to a number of reasons which include logistic (transport, long distance) and financial constraints. Furthermore, the pathway to care may involve patients patronizing alternative sources (herbalists, FBOs, etc.) for treatment including self-medication. Failure of such interventions may prompt patients or relatives to present for treatment. This may explain why participants who had presented for treatment elsewhere were more likely to keep scheduled appointments. However, there is a need for more education to reduce unnecessary delay before seeking treatment.

Comorbidity was reported in a minority (7.1%); and they were usually cardiovascular related problems of hypertension or heart disease. In the Ibadan Study for Ageing, cardiovascular conditions were common among elderly psychiatric populations. This subgroup was more likely to keep their scheduled first appointment probably due to better health seeking behavior patterns.[31] The most common diagnoses at presentation was schizophrenia, followed by mood/affective disorders and substance use disorders, similar to some other findings.[11,17,35] Neurotic disorders and behavioral syndromes were found in a minority of participants. This pattern of presentation may be explained by the fact that severe cases would present at tertiary centers for care. This study reveals that patients with psychotic illnesses are more likely to default from appointments, corroborating earlier findings.[17,35]

A minority had a history of aggressiveness. Verbal aggression was the most prevalent and aggression towards self the least, similar to earlier reports.[22,29] Respondents with a history of aggressive behavior were more likely to miss their appointments compared to others, and the strength of the evidence was not strong (*P* < 0.08). Chukwujekwu and Stanley had reported

that aggression was targeted at relatives.[22] Relatives who are physically and psychologically traumatized lack interest in providing the needed support that would enhance clinic attendance.[36] Consequently, aggressive patients may default from clinic appointments.

A minority of the respondents and/or their relatives expressed difficulty accessing the hospital and another 13.9% complained of a long waiting time. These findings are similar to those of Onifade *et al*.,[37] Iliyasu *et al*.[27] and Ofili and Ofovwe.[38] Difficulty in accessing the hospital may be due to long distance from the hospital, poor road network or nonavailability of means of transport. Similarly, long waiting times may result from delays in moving from one service point to another, attitudes of staff or low staff-patient ratio.

The expression of satisfaction with interactions with the treating clinician was almost 100%. It is likely that the respondents or their relatives might have been biased and gave reports that appeared favorable, fearing that airing their true opinions would reduce the quality of care received.

Limitations

This study was conducted at a single center; the findings may not therefore be generalizable to other psychiatric outpatient populations in Nigeria. The instrument used was interviewer-administered, introducing a possible response-set bias, especially on the section for treatment satisfaction. The population for this study was drawn from a tertiary hospital setting, the results of which may not be applicable to other psychiatric settings like the primary and secondary levels.

Conclusion

This study reveals that missed first appointments at a psychiatric clinic in Benin City, is common. This constitutes a major problem in the delivery of mental health care services. Support of relatives and having previous treatment before presenting to orthodox psychiatric care were significantly associated with lower rates of missed appointments. Efforts are needed to educate relatives as well as patients on the importance of keeping scheduled clinic appointments. Such educational interventions may take place during an intake interview with the positive effects on illness prognosis as well as providing support to families based on peculiar needs that would aid regular clinic attendance.

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