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Failure to keep psychiatric appointments at primary healthcare facilities: Mental health care users missed ongoing clinical visits in Ekurhuleni district in Gauteng province, South Africa

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Abstract

The study aimed to describe the characteristics and reasons why mental healthcare users miss clinical appointments in primary healthcare psychiatric facilities. Missing clinical appointments is a problem in primary healthcare facilities and has received attention in recent years. It is important to establish the extent of its occurrence in order to minimize it. However, there is limited research globally and in Africa about the prevalence of MHCUs missing clinical appointments and its contributory factors. A quantitative, simple descriptive cross-sectional approach using researcher-administered questionnaires at nine Primary Health Care (PHC) facilities was adopted. Of the 427 samples, only 404 participated in the study. Males were 54.2% dominant as compared to their female counterparts. Those found to have missed appointments were mostly among participants aged 41-55 years. The findings revealed that the most common challenge of missing appointments is related to patient factors. Participants with secondary diagnoses, particularly substance abuse disorders, were significantly more likely to miss appointments ($\chi 2 = 12.52$, df = 1, $p < 0.000$), compared to those with depression and schizophrenia. The findings provide target points for the establishment of guidelines that will aid in reducing risk factors for missed appointments and call for mental healthcare providers to identify patients who are at risk of not attending their psychiatric clinical appointments and intervene accordingly. Patients who miss appointments run a risk of relapsing and being readmitted. This study established factors related to missed appointments among MHCUs and is limited to Ekurhuleni District in Gauteng Province.

Keywords: Characteristics, Mental health care user, Missed clinical appointment, Psychiatric patients. Primary healthcare, Psychiatric facility, Psychiatric appointments

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Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
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1. Introduction

Missed appointments are an endless challenge in all healthcare settings [1]. Recent research reports show that missed appointments are common among all outpatients, and are much higher in psychiatric patients when compared to those with other medical conditions [2]. Twenty-three percent on average of missed appointments occurred in all medical settings, with 10% in primary healthcare facilities and over 60% in mental healthcare institutions [3], and it contributes to increased healthcare costs and clinical inefficiencies affecting healthcare providers, patients, and the healthcare system [1].The high rate of missed appointments in mental healthcare settings might be due to the de-institutionalization of mental health services and the establishment of primary and community-based care, which has resulted in a shift from mental health hospital treatment to community care settings [4]. Mental health disorders are undoubtedly the highest, accounting for 13% of the total burden of all illnesses worldwide [5]. The proportion of psychiatric patients accidentally or unintentionally missing an appointment appears to increase from day to day [6]. Frequently missed appointments by MHCUs result in clinical and administrative challenges and MHCUs lose opportunities to receive continuous care [1, 7]. There are varied reasons why mental health care users (MHCUs) miss appointments, and the topic has gained significant public interest [8].

Factors influencing missed appointments are predominantly environmental and demographic factors, patient-related factors, memory problems, information and health beliefs, illness factors, and healthcare provider factors [9]. Younger age, male gender, unemployed or low socioeconomic status, being single, and lack of education were found to be factors associated with missed appointments[9]. The other reported factors found to be associated with skipping appointments include the ability to pay for treatment, distance to a healthcare facility, lack of transportation, homelessness, substance use, the severity of the illness, living alone, and impaired functioning [9, 10].Delay in receiving the initial appointment and extended appointment scheduling were also found to contribute to patients missing appointments [4]. Forgetting the appointment, being psychiatrically unwell, and unhappiness with treatment were also noted to correlate with poor attendance at psychiatric healthcare facilities. Absent-mindedness was found to be a factor contributing to missed appointments in some patients living with psychosis, mood disorders, neurotic disorders, and personality disorders [11]. In most instances, missed appointments consequently affect individuals diagnosed with severe mental health disorders such as schizophrenia and bipolar affective disorder more than those with less severe mental disorders [9]. Surprisingly, patients diagnosed with substance abuse or dependence were always present among the patients having difficulty adhering to appointments [9].Over the years, clinics have struggled with high missed appointment rates, even though some patients receive appointment reminders two days prior to the scheduled appointment [6]. Failure to keep scheduled appointments is a long-standing challenge in primary healthcare facilities. Our current study aimed to untangle the characteristics and reasons for missed follow-up psychiatric appointments in primary health care facilities among MHCUs in Ekurhuleni District in Gauteng Province, South Africa. To our knowledge, there are few recent studies reporting the reasons for missed appointments among patients living with mental healthcare illnesses in Ekurhuleni District in Gauteng Province, South Africa. The findings of this study contributed enormously to the body of knowledge on characteristics related to MHCUs who fail to keep scheduled appointments, allowing healthcare workers involved with the management of mental health cases to intervene accordingly. Moreover, this study enables healthcare workers to identify the patients at risk of missing appointments, whereby intense counselling can be provided to the users or carers, and even educate the patients about rescheduling appointments when encountering the problem with the initially scheduled dates, to maintain the provision of uninterrupted psychiatric services.

2. Materials and Methods

2.1. Study Design

This was a cross-sectional, descriptive quantitative study conducted to investigate the missed clinical appointments among MHCUs

2.2. Setting

The study was conducted at the primary healthcare facilities in the City of Ekurhuleni, a southern sub-district of Gauteng Province (GP) in South Africa. The sub-district has twenty-nine primary health care facilities and four community health care centres, all of which render mental health care services. The researcher divided the 29 facilities into three clusters, ranging in size from large to medium to low. Only facilities with high and medium volumes of MHCUs were purposely selected.

2.3. Population and Measurement to Sample Patients Who Missed Appointments

Adherence to scheduled appointments was the dependent variable analyzed, which included the categories of missed appointments, cancelled, rescheduled, and others. The focus is only on those who have missed their scheduled appointments in primary healthcare facilities. We conducted the data filtering steps where we only included missed appointments and other appointment non-compliance, such as rescheduled or cancelled appointments, and then censored them from the dataset [12]. Out of 8675 mental health patients extracted from Southern sub-district MHCUs' primary healthcare facility registers, 4091 were removed because they had no history of missed appointments found in the database. The final dataset of patients who have a history of missing more than one appointment was 4584 for their last scheduled appointment during the study period. We, therefore, considered them for the sample of this study. A Raosoft sample size calculator was used to calculate a sample size at a 5% margin of error, 95% confidence level, and 50% response distribution. A 10% buffer of participants was included in the sample in case of a low response rates. The final sample size

was estimated to be 427. Convenient sampling was used to identify the respondents who had missed more than one clinical appointment.

2.4. Data Collection Procedure

The data capturers in the identified healthcare facilities assisted identify the MHCUs who missed their clinical appointments by checking in their [MHCUs] retained patient cards for appointment visits and confirmation from the register. After the identification of such patients, the data capturers liaised with the healthcare provider delegated to the psychiatric unit to refer the patients to the researcher after consultation. The researcher set up appointments for those who were not willing to participate on that day. The Clinical Manager, a licensed nurse in charge of the MHCUs, helped the researcher on the day of the visit by identifying the respondents who met the criteria and directing them to the room where the researcher was staying. All the targeted MHCUs who were available on that day were recruited to participate. Depending on the number of MHCUs on the day, some MCHUs were asked to participate in the study while waiting in the queues for their files after identification by data capturers.

After identifying patients who missed psychiatric clinic appointments, the recruitment process was initiated, whereby study information was given to participants and then signed informed consent was obtained before administering the questionnaires upon consent. The questionnaire captured their socio-demographic characteristics. Moreover, we wanted to determine the reasons for missed appointments and the medical diagnostic characteristics of patients who missed appointments. The researcher-administered questionnaire was used to collect data.

2.5. Data Analysis

All the collected data from the questionnaires was coded and captured in a Microsoft Excel spreadsheet (Microsoft Office 2013), and later imported into the Stata Statistical Software version 16 for analysis. Simple frequency distributions were used to describe the socio-demographics of the respondents and the mental health characteristics of MHCUs who missed appointments (Table 1). The dependent variable (missed appointments) was defined as missing one or more appointments. A chi-squared test was used to determine any level of statistical difference focused specifically on certain physical or psychological mental health diagnoses (Table 2). Reasons for missed appointments are presented in frequencies in Table 3.

2.6. Ethical Considerations

Ethical clearance was obtained from the Sefako Makgatho University Research Ethics Committee (SMUREC) (Reference: SMUREC/H/139/2021: PG). Permission to conduct the study was granted by the National Department of Health (Reference:GP-202109-012), the Ekurhuleni District Health, and the facility clinic managers. Confidentiality and anonymity of the patients' information were assured, and the information collected was only used for the purpose of this study.

3. Results

3.1. Socio-Demographic Characteristics

Of the 427 participants sampled, 404 consented to take part in the study. Males were 54.2% dominant as compared to their female counterparts. The study found that appointments were missed mostly among participants aged 41-55 years, accounting for 42.8%, followed by those aged 26–40 years, accounting for 32.4%. It was identified that participants who were single ranked high (60.4%) compared to their married counterparts (28.7%). Most of them reached high school (66.8%), and most were unemployed (77.5%). The majority of participants (48.3%) were black (88.4%), and 43.8% of them lived in informal settlements. The study found that 72 of the participants who missed appointments had lived with mental health conditions for more than five years. See Table 1 for illustrations.

Table 1.
Demographic characteristics (N=404).

Characteristic	Description	Frequencies	(%)
Sex	Male	219	54.2
	Female	185	45.8
Age categories in years	18-25	55	13.6
	26-40	131	32.4
	41-55	173	42.8
	Older than 55	45	11.1
Marital status	Married	116	28.7
	Widow	23	5.7
	Divorced	21	5.2
	Single	244	60.4
Education level	Primary	107	26.5
	High school	270	66.8
	Tertiary	27	6.7
Religion affiliation	Yes	349	86.4

Characteristic	Description	Frequencies	(%)
	No	55	13.6
Race	Black	357	88.4
	Colored	25	6.19
	White	22	5.5
Employment status	Employed	76	18.8
	Pensioner	15	3.7
	Unemployed	313	77.5
Source of income	None	293	72.5
	Other	1	0.25
	Salary	76	18.8
	Social grant	34	8.4
Place of abode	Township	195	48.3
	Informal settlement	177	43.8
	Suburb	32	7.9
Duration of mental illness (In years)	1	16	4.0
	2-3	48	11.9
	4-5	49	12.1
	>5	291	72.0

3.2. Missed the Appointments Prevalence per Age Categories

During the past 12 months, among the 404 participants who participated in the study, it was found that the age category of 41-55 years old missed appointments mostly compared to other age categories. However, it was noted that participants (n= 131) between the age categories of 26-40 years were higher in the category of those who missed two appointments than the other groups. See Figure 1 for illustrations.

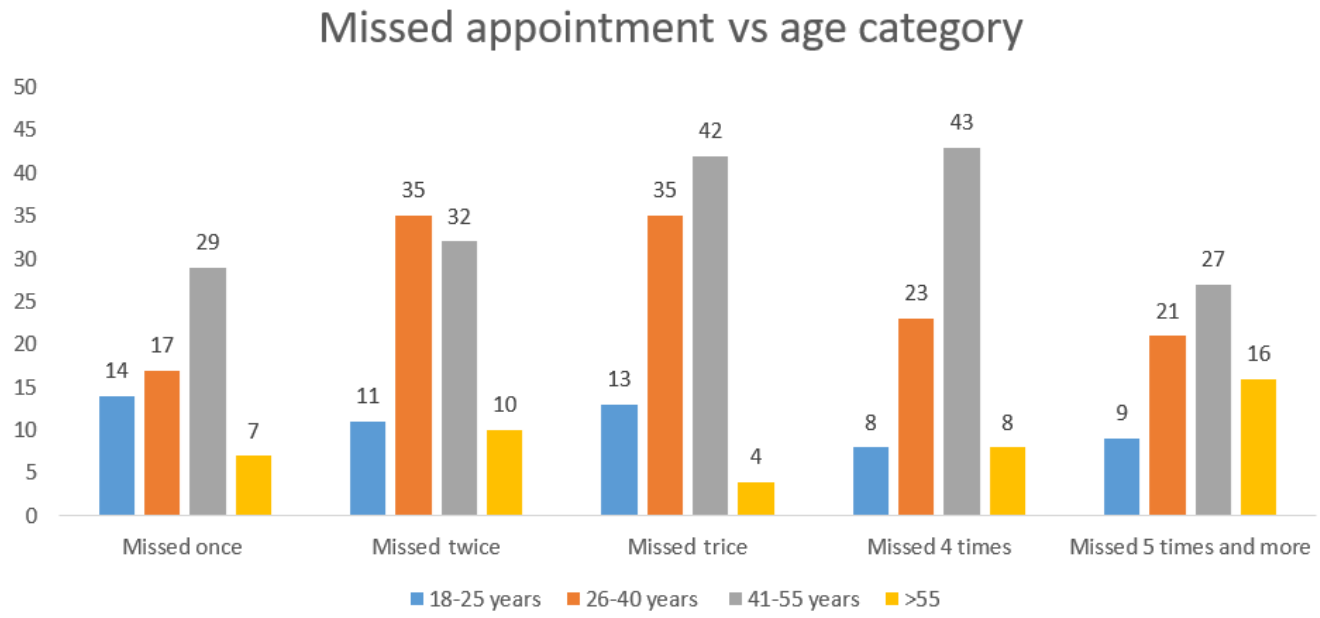

Figure 1.
Missed scheduled appointment frequency and age category.

3.3. Mental Health Diagnoses and Missed Appointments

The primary diagnoses of the 268 participants who failed to keep appointments were depression (%, N=99), anxiety disorder (%, N=78), schizophrenia (%, N= 75), epilepsy (%, N=12), and mental retardation (%, N=4). 136 participants (33.7%) with secondary diagnoses of substance abuse disorders (83.8%) ranked high compared to patients with mood disorders (16.2%). Compared to the participants with secondary diagnosis particularly a diagnosis of substance abuse disorders, they were significantly more likely to miss appointments ($\chi2=12.52$, df=1, $p<0.000$), and those with depression and schizophrenia were discovered to be less likely to miss appointments ($\chi2 = 2.62$, df=, p=0.068, and $\chi2=1.93$, df=, p=0.052).

Table 2.
Diagnostic characteristics of 404 participants missed mental health follow-up appointments.

Diagnostic	N (%)	$\chi 2$(df=1)	p
Primary diagnoses			
Schizophrenia	75(18.6)	1.93	0.164
Depression	99(24.5)	2.62	0.104
Anxiety disorder	78(19.3)	1.87	0.182
Epilepsy	12(3)	0	0.998
Mental retardation	4(1)	2.55	0.108
Secondary diagnoses			
Substance use disorder	114(28.2)	12.52	0.000
Personality mood disorder	22(5.4)	1.97	0.158

3.4. The Reasons Given for Missed Appointments with MHCUs at Various Primary Healthcare Facilities

When asked about participants who spontaneously missed appointments, the following reasons were revealed: About 74(18.3%) participants reported forgetfulness as a major challenge, and 71 (17.6%) did not provide the reasons why they failed to keep the scheduled appointments. Among other reasons, stigma from family, stress, stigma from the community, lack of family support, scheduled appointment conflict with healthcare workers, and denial of mental health status were pointed out as some of the reasons contributing to appointment-keeping glitches. Other reasons are presented in Table 3.

Table 3.
The reasons for missed appointments with MHCUs (N=404).

Reason	N	%
Forgetfulness	74	18.3%
Denial of mental health status		n=21; 5.2%
Witchcraft	13	
Calling to be Sangoma	8	
Stigma from family		n=59; 14.6%
Being pushed around	13	
Being labelled	10	
Disowned	16	
Stigma from community	35	8.7%
Religious and cultural practices	13	3.2%
Not happy with treatment	4	1%
Lack of family support	30	7.4%
Time off from work	2	0.5%
Long waiting time	17	4.2%
Stress	41	10.1%
No reason provided	71	17.6%
No accompaniment	3	0.7%
Have no money for transport	9	2.2%
Overslept and decide to go the next day or so	19	4.7%
Scheduled appointment conflict with healthcare workers	21	5.2%
Medical illness relapse (Readmitted to psychiatric unit)	5	1.2%

4. Discussions

Our study aimed to untangle the characteristics and reasons for missed psychiatric appointments in primary healthcare facilities in MHCUs. The analysis of sociodemographic characteristics of MHCUs who missed psychiatric appointments revealed that males, MHCUs aged 41-55, single marital status, limited education literacy, unemployment, living in a formal settlement, and having lived in a MHCU for more than five years since initial diagnosis were most prevalent characteristics in this study (Table 1). These variables may be used as a yardstick to identify patients at risk of missed appointments and to monitor compliance with treatment therapy. This study did not reproduce the results of other studies that were looking at associations between missed appointments and these variables; however, we suggest that these variables may account for risk factors that can be marked as predictors of noncompliance with appointments in different settings and populations. The effect of age in previous studies revealed that younger adults are the ones most likely to miss clinical appointments [13]. Similarly, an earlier study found patients aged 35 and older to be more likely to adhere to their scheduled appointments than patients younger than the age of 25 [14]. In contrast, we have found that missed clinical appointments were more prevalent in middle-to older-age MHCUs that participated in this study. Though this is not the case identified in older MHCUs, this study found that they missed fewer appointments. as compared to their counterparts. We conclude that there might be a relationship between age and adherence to appointments, and it may be related to the previous history of psychiatric clinical attendance.

The MHCUs who had been on mental health treatment for longer (>5 years) were found to be higher in this study, and we classified them as having an increased risk of missing appointments. The prevalence of missed appointments among this group was estimated between 12,2% and 48,6%, with a prevalence between 4.3% and 26.4% over a period of a year according to the literature.[18] Patients with a greater number of long-term conditions had an increased risk of missing appointments despite controlling for the number of appointments they had made [13]. This study suggests that there is a need for the healthcare system to also pay attention to patients with long-term conditions, as this study pinpoints the greater possibility of an increase in the prevalence of missed appointments among this cohort.

The secondary diagnoses, particularly substance abuse disorder, were found to be statistically associated with missed appointments. However, this is not in accordance with previous studies wherein missed appointments occur most in patients suffering from severe psychosis disorders such as schizophrenia [15]. The most striking findings in this study revealed that patients mostly like to have missed appointments were those with substance misuse and depression disorders (Figure 1), which was not the case in the current study. Substance use has been associated with treatment non-adherence and destructive behavior. This study identified a gap in the research conducted on this phenomenon. Some other literature concentrated on poor adherence to medication in patients with bipolar mood disorders and severe depression who were non-adherent to their prescribed medications [16-20].

Numerous factors were reported by participants to be the influence of noncompliance with appointments in this study. Among those factors, forgetfulness stigma from family, stress, stigma from the community, lack of family support, scheduled appointment conflict with healthcare workers, and denial of mental health status were noted (Table 3). Most studies found forgetting an appointment to be the most significant factor associated with missed appointments, contributing to relapse [21]. The good thing about the findings is that nothing has been found in this study that links missing appointments with poor adherence to treatment; hence, this study cannot suggest that missed appointments are a protective factor contributing to MHCU relapse. In this study, 17.6% of participants offered no reason for missing appointments. We concluded that this behavior might be linked to the perception of how they associate their medical conditions with the need to comply with treatment appointments. Most people do not perceive mental illness as a condition that needs medical attention. It was observed that some participants linked their illness with witchcraft and cultural rituals. Differences between mental health conditions and patients' perceptions may interfere with medical treatment-seeking behavior, mostly when it originates from different cultural perspectives [22].

Stigmatization in mental health competes with other stigmatization in other health conditions. Mental health illness is mostly classified as taboo and such people are stigmatized in different population groups across the world [22]. People living with mental illness hold a stigmatized status in society Dobransky [23]. Subu, et al. [24]. stigma influences patients' families or relatives. However, in contrast, this study revealed that family members also stigmatized their loved ones. Majumder [22] highlights that *engagement with mental health services may be hindered by people's own perceptions and understanding of mental illness, and stigma and embarrassment can prevent people from seeking help*. Non-acceptance of one's own mental health condition and stigmatization may nevertheless drive people away from seeking mental health intervention [24]. Thus, missed appointments might increase among the MHCUs.

4.1. Contribution of the Study to the Body of Knowledge

Patients in ongoing treatment who do not return to healthcare facilities have a history of non-adherence to medications and run a risk of relapsing and being readmitted. The findings of this study provide target hints for the establishment of guidelines that will aid in reducing risk factors for missed appointments and call for mental healthcare providers to identify patients who are at risk of not attending their psychiatric clinical appointments.

4.2. Implication to Practice and Future Research

We wish that this study would add value to authorities managing people living with mental health by establishing guidelines that will aid in reducing risk factors for missed appointments. Community forums and awareness to facilitate better understanding when it comes to mental health issues need to be strengthened. Counselling during a mental health consultation should also involve family members. Family support is the key to medical treatment plan compliance.

The findings of this study have the potential to close the gap between limited research studies and the information available that links the types of stigma experienced by MHCUs with mental illness that result in missed psychiatric appointments.

4.3. Limitation

A major limitation of this study is that we did not investigate the date of hospital discharge or the initial date of referral to assess adherence to appointments. There were also quite a few limitations in this study. Missed appointment rate was measured using a register in the facility; therefore, the data was anecdotal and not checked for accuracy and validity. Co morbidities among these patients were not assessed, as they might also have an influence on missed appointments. There is a chance that information bias is possible in psychosis patients because they are less likely to give accurate information about factors contributing to missed appointments. The questionnaires were administered by the researcher, and that can influence the data collected. Lastly, the sample size of this study is from a single setting; hence, cannot be generalized to other settings.

5. Conclusion and Recommendations

This study identified the characteristics and reasons why mental healthcare users missed clinical appointments after being deinstitutionalized into primary healthcare psychiatric facilities. Several factors were identified as having a link to missed appointments. It is empirical to explore all the factors that might result in noncompliance with appointments before the patients are discharged to community-based care. There should be a balance in the care of mental healthcare users; all conditions should be treated equally. The patient-centered approach can assist in accommodating all patients, regardless of their type of illness, to enable them to voice the challenges interfering with compliance with the treatment plan. The shift observed in this study was that not only schizophrenic patients were found to be the ones missing appointments, but people with substance abuse and depression were also affected. Identification of patients who are at risk of not attending their psychiatric clinical appointments is crucial so that healthcare psychiatric authorities can establish guidelines that will aid in reducing risk factors for missed appointments.

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