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Profile of nonattending patients at psychiatric outpatient clinics before (in-person model) and during COVID-19 pandemic (telepsychiatry model): A comparison study

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Abstract:

BACKGROUND: Missed appointments in mental health services have been a concern; as nonattendance may be associated with various clinical risk factors.

AIMS: We intended to compare the profile of nonattenders at psychiatric outpatient clinics before (in-person model) and during the COVID-19 pandemic when the services changed to remote consultations (telepsychiatry model).

MATERIALS AND METHODS: Clinical features (diagnosis, medical and psychological treatment, care program approach, and first contact), risk to self and others, and demographic variables (age, gender, ethnicity, accommodation, occupation, and benefits) were collected from the electronic records. The outcomes after the missed appointment were also noted.

RESULTS: The sample consisted of 23 nonattenders in January 2020 (pre-COVID-19) and 32 nonattenders in November 2020 (during COVID-19); with an overall rate of nonattendance of 20% and 22%, respectively. Nonattenders during COVID-19 were significantly ($P < 0.05$) younger (36.4 ± 10.2 vs. 45.3 ± 15.0), and had more male patients (68.8% vs. 31.3%) compared to pre-COVID-19. There were no differences in other demographic variables, diagnoses, treatment received, or level of care. Risk to self was significantly more during COVID-19 (34.4% vs. 8.7%, $P < 0.05$) and risk to others was less (0.0% vs. 17.4%, $P < 0.05$). Significantly more ($P < 0.05$) nonattenders were contacted by letters during COVID-19 (81.3%) than pre-COVID-19 (52.2%); a higher ($P < 0.05$) proportion of nonattenders were discharged from services during COVID-19 (34.4%) compared to pre-COVID-19 period (8.7%).

CONCLUSIONS: During COVID-19, when psychiatric outpatient services changed to remote consultations, there were differences in the profile of nonattenders and their risks. The results suggest that telepsychiatry services should explore the profile of nonattenders and their risks for arranging appropriate support.

Keywords:

Coronavirus, demography, outpatients, pandemics, patient compliance, psychiatry, risk factors

Introduction

Nonattendance in mental health services is a recognized concern.^[1] The rates of nonattendance at outpatient appointments have been reported between 20% and

50%, which is up to twice the rate of other medical specialties.^[2] Nonattenders have been reported to be more unwell, lack insight, resist treatment, have poorer social functioning, inadequate family support, nonadherence to medications, and are more likely to be readmitted.^[3-6] These highlight

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the clinical risks associated with nonattending patients in psychiatric outpatient clinics.

Recently, during the COVID-19 pandemic, the outpatient appointment systems changed from an in-person (face to face) model to a telepsychiatry model (remote consultation and management) in most settings, to limit virus transmission.^[7-10] It required patients to attend outpatient appointments through telephone or video links. There is meager information about the profile of nonattenders during this changed outpatient system. An Italian study conducted following the first wave of the COVID-19 pandemic found that up to 77% of patients missed their first or follow-up outpatient appointments in psychiatry.^[11] In this case, rather than a switch to telepsychiatry, the appointments were merely canceled or rescheduled.

There could be various patient-related factors leading to nonattendance in the modified telepsychiatry system of outpatient appointments. Many challenges have been reported, such as maintaining confidentiality at home to talk, absence of nonverbal communication, difficulty in forming a therapeutic relationship, difficulty in using the telephone, especially for older persons, and technical issues such as connectivity.^[12,13] There could also be illness-related factors as well for which there is not enough information.

In the UK, similar to many parts of the world, the method of outpatient appointments changed to telepsychiatry during the COVID-19 pandemic. It was felt that there was a need to investigate the effects of remote consultations on rates of nonattendance at psychiatric outpatient clinics. We hypothesized that the rate of attendance and the profile of nonattending patients changed during COVID-19. The key objective of this study was to identify the impact of the changed outpatient review method (telepsychiatry) on attendance at psychiatric outpatient clinics. It was also intended to explore the clinical, demographic, and risk profiles of nonattending patients in this setting.

Materials and Methods

This was a retrospective study comparing the clinical and demographic profiles of the nonattenders in psychiatric outpatient clinics.

Sample

The sample for this study was consecutive nonattenders at community psychiatric outpatient clinics in January 2020 (before the COVID-19 pandemic in the UK) and in November 2020 (during the pandemic) when remote consultation and management (telepsychiatry) were well established in psychiatry.

Variables

The clinical variables collected were diagnosis, medical and psychological treatment, level of care through the care program approach (CPA), and first contact or follow-up appointment. The risk was collected specifying the risk of harm to self or others. The demographic variables collected were age, gender, ethnicity, accommodation type, occupation, and being on benefits.

Data collection

The patients who missed their outpatient appointments were identified by the multidisciplinary team and the electronic appointment systems. Data were collected from the electronic case records.

Ethics

This project was conducted as a service evaluation and was approved by the trust quality improvement team. Ethical principles of anonymity were adhered to and no identifiable information was collected.

Analysis

These two groups were compared using the appropriate statistics (percentage, Chi-square, and *t*-test). The $P < 0.05$ was considered statistically significant. SPSS version 28 (IBM Corp, Armonk, NY, USA) was used for data analysis.

Results

The sample consisted of 23 nonattenders in January 2020 (pre-COVID-19) and 32 nonattenders in November 2020 (during COVID-19). Based on the total appointments offered, the overall rates of nonattendance were 20% pre-COVID-19 and 22% during COVID-19. The demographic details of the patients are given in Table 1. There were four Asian, seven Afro-Caribbean, and three patients from other races which were together known as Black, Asian, and minority ethnic groups. The mean age of the nonattenders pre-COVID-19 was 45.3 ± 15.0 compared to 36.4 ± 10.2 years during COVID-19 ($t: -2.61$, $P < 0.05$).

The clinical profile of the patients is given in Table 2 which includes the presence of comorbidity, risk, and interventions. The diagnoses are provided in Table 3. All the patients had risk assessment. The level of care was followed through the CPA guidelines, where a proportion of patients had a CPA level of care-coordinated support.

Information about the missed psychiatric outpatient appointments and the outcome after the discussion in the multidisciplinary team is given in Table 4. All the patients who did not attend were contacted as per local mental health services guidelines. Various actions

Table 1: Demographic variables of the sample

Variables	Categories	Pre-COVID (n=23), n (%)	During-COVID (n=32), n (%)	Total (n=55)	χ^2	P
Gender	Female	14 (60.9)	10 (31.3)	24 (43.6)	4.77	0.029
	Male	9 (39.1)	22 (68.8)	31 (56.4)		
Ethnicity	White	17 (73.9)	24 (75.0)	41 (74.5)	0.008	0.927
	BAME	6 (26.1)	8 (25.0)	14 (25.5)		
Accommodation	Homeless	0	2 (6.3)	2 (3.6)	3.1	0.212
	Own	23 (100.0)	28 (87.5)	51 (92.7)		
	Supported	0	2 (6.3)	2 (3.6)		
Occupation	Employed	4 (17.4)	7 (21.9)	11 (20.0)	0.898	0.638
	Student	2 (8.7)	1 (3.1)	3 (5.5)		
	Unemployed	17 (73.9)	24 (75.0)	41 (74.5)		
Being on benefits	No	15 (65.2)	16 (50.0)	31 (56.4)	1.26	0.262
	Yes	8 (34.8)	16 (50.0)	24 (43.6)		

BAME=Black, Asian, and minority ethnic

Table 2: Clinical profile of the patients

Variables	Categories	Pre-COVID, n (%)	During COVID, n (%)	Total, n (%)	χ^2	P
Comorbidity	None	10 (43.5)	22 (68.8)	32 (58.2)	3.513	0.061
	Present	13 (56.5)	10 (31.3)	23 (41.8)		
Risk of harm	To self	2 (8.7)	11 (34.4)	13 (23.6)	4.889	0.027
	To others	4 (17.4)	0	4 (7.3)		
Level of care	As usual	5 (21.7)	2 (6.3)	7 (12.7)	2.89	0.089
	Coordinated	18 (78.3)	30 (93.8)	48 (87.3)		
Depot antipsychotic	No	21 (91.3)	28 (87.5)	49 (89.1)	0.199	0.655
	Yes	2 (8.7)	4 (12.5)	6 (10.9)		
Antipsychotic drugs	No	10 (43.5)	14 (43.8)	24 (43.6)	0.000	0.984
	Yes	13 (56.5)	18 (56.3)	31 (56.4)		
Antidepressant drugs	No	12 (52.2)	12 (37.5)	24 (43.6)	1.172	0.279
	Yes	11 (47.8)	20 (62.5)	31 (56.4)		
Psychotherapy	No	11 (47.8)	13 (40.6)	24 (43.6)	0.282	0.595
	Yes	12 (52.2)	19 (59.4)	31 (56.4)		

Table 3: Psychiatric diagnoses of the patients

Diagnoses	Pre-COVID, n (%)	During COVID, n (%)	Total, n (%)
Mood disorders	13 (56.5)	19 (59.4)	32 (58.2)
Anxiety disorders	8 (34.8)	8 (25.0)	16 (29.1)
Psychotic disorders	6 (26.1)	8 (25.0)	14 (25.5)
Substance use disorders	7 (30.4)	3 (9.4)	10 (18.2)
Personality disorders	4 (17.4)	5 (15.6)	9 (16.4)
Attention deficit hyperactivity disorder	0	2 (6.3)	2 (3.6)
Eating disorders	0	2 (6.3)	2 (3.6)

Table 4: Nature of missed psychiatric outpatient appointments and outcome

Variables	Categories	Pre-COVID, n (%)	During COVID, n (%)	Total, n (%)	χ^2	P
Appointment type	Follow-up	19 (82.6)	26 (81.3)	45 (81.8)	0.017	0.897
	First contact	4 (17.4)	6 (18.8)	10 (18.2)		
Outcome	Letter to patient	12 (52.2)	26 (81.3)	38 (69.1)	5.298	0.021
	Rebooked appointment	11 (47.8)	6 (18.8)	17 (30.9)		
Discharged from services	No	21 (91.3)	21 (65.6)	42 (76.4)	4.889	0.027
	Yes	2 (8.7)	11 (34.4)	13 (23.6)		

are taken following a nonattendance in the psychiatric outpatient appointment. These include a letter being sent to patients asking them to contact the community mental health team; an appointment is provided, or they are discharged from the mental health services to the care

of general practitioners (GP) with whom patients are registered. Patients who did not respond to the contact letter or informed that they did not need any further appointment at that time were considered for discharge to their GP.

Discussion

This study explored the possibility of a change in the patient profile of nonattenders when the care delivery for outpatients changed to telepsychiatry with remote consultations and management during the COVID-19 pandemic. There are various reasons to study the profile of nonattending patients in psychiatry, as there are specific clinical concerns. Although COVID-19 made remote consultation and management widespread, this was practiced before the pandemic;^[14,15] and in all probability will continue and be utilized more and more. Many studies have reported its usefulness,^[16-18] and benefits of remote consultations to the health-care system, which include speed, improved access, and convenience to patients.^[19] Evidence also suggested that patient satisfaction with telephone consultations was high,^[20] and that interventions implemented by telephone were comparable in success rates to face-to-face contacts in primary care and mental health services.^[19,21] Hence, this makes it a pertinent area to explore considering more and more mental health services are considering remote consultations, and nonattenders may have specific clinical risks.

Considering the results of this study, it appeared that nonattendance at remote psychiatric outpatient appointments continued to be a concern during the COVID-19 pandemic although it was comparable to the pre-COVID-19 rates. However, there were significant changes in various demographic and clinical parameters.

Demography

A previous study comparing nonattenders and attending patients did not find differences in the sociodemographic profile such as age, sex, ethnicity, occupational, or marital status; although unemployment, oral medications, and morning appointments were common in nonattenders.^[6] Frequent changes of occupation have been reported in another study as a cause of nonattendance.^[22] In our study, nonattenders during COVID-19 were mostly male patients considering the sample composition. Compared to pre-COVID-19, there was a statistically significant difference ($P < 0.05$) in the gender distribution of nonattenders during COVID-19, with significantly more male and fewer female patients in the nonattender group. There are reported differences in help-seeking among genders.^[23] The change following COVID-19 may have various reasons, for example, comfort in discussing mental health issues over the phone, availability of privacy at home during lockdowns, adjusting with the changes in access to health services, etc.

The mean age of nonattending patients decreased significantly from 45.3 to 36.4 years. Nonengagement of younger persons in mental health services has

been reported,^[24] along with the higher rate of their nonattendance in clinics.^[25] During challenging times of a pandemic, it is probable that the younger people did not engage.

Risk

The proportion of patients posing a risk to themselves increased significantly ($P < 0.05$) during COVID-19, whereas risk to others decreased ($P < 0.05$) significantly among the nonattenders during COVID-19. A similar change in risk profile was also reported in inpatients.^[26] There could be various reasons for the increased suicide risk. The feelings of isolation increased along with lockdowns, and socialization decreased during COVID-19; there was increased anxiety and depression in the community as well.^[27] It has been reported that the rate of suicidal ideations increased during COVID-19 compared to previously reported rates in the general population.^[28,29]

The risk to others was not reported in the nonattenders during COVID-19 compared to 17.4% pre-COVID-19. It may be because most patients lived in isolation, and there was a decreased chance of interaction with others; it could also be due to the small sample size which did not pick up if there were any. Although there are reports of increased risk of domestic abuse,^[29] intimate partner violence,^[30,31] during COVID-19; this study did not specifically enquire about it.

Clinical

The composition of diagnoses in both samples pre- and during COVID-19 was comparable; except that a higher proportion of patients with substance use disorders were not attending in the pre-COVID-19 period. There was no significant difference in the level of care based on CPA and treatment provided during the two time periods studied, pre- and during COVID-19. This is expected as the method of psychiatric interventions or support methods did not change.

Outcome

It has been reported that the number of referrals to mental health services increased during the COVID-19 pandemic and so also the number of patients managed in outpatients and inpatients in the UK,^[32] which is in contrast to reports elsewhere as the services were limited or closed.^[33] During the pandemic, the caseload of patients in this community mental health team increased considerably. The proportion of nonattending patients discharged from mental health services to primary care during COVID-19 in this study significantly increased to 34.4% from 8.7% pre-COVID-19 ($P < 0.05$). It could be possibly because when face-to-face contacts, reviews, or visits were not possible because of the COVID-19-related restrictions, the patients who did not engage even for

the phone consultations were discharged. Similarly, as the rebooking of appointments came down during the pandemic, probably secondary to the inability to connect with nonattenders over the phone, more patients were sent letters. It is important to highlight that in telepsychiatry, different methods of communication should be constantly explored to improve patient attendance and adherence to the services. Along with this, the reasons for nonattendance should be specifically examined and appropriately addressed.

Implications of the findings

Remote consultations and management (telepsychiatry) were practiced in mental health services before COVID-19, which increased massively during the pandemic, considering the constraint of face-to-face consultations because of infection control measures. In all probability, facilities for telepsychiatry will increase in the future for many psychiatric services; and these findings on nonattenders might help in designing and developing remote services for psychiatric patients to effectively understand and decrease the chance of nonattendance.

Although telepsychiatry has shown considerable promise in psychiatric assessment and management, there are still challenges to its effective implementation.^[34] Nonattendance in this system of psychiatric outpatient clinics is comparable with the usual in-person system; however, few differences are noticed in the profile of nonattenders. Some recommendations for tele-psychiatric services can be considered based on the results of this study on nonattendance. A reminder for appointments should be offered to patients, which could be an automated service, with an option for the patients to respond, opt-in, or inform about cancellation or postponement. These can be text reminders over the phone to patients before their appointments. This system is already in place in various services;^[35] and can be easily implemented for patients opting in for remote consultations and having access to the internet and appropriate gadgets.

It is important to explore the possible reason for nonattendance and offer patients a suitable follow-up appointment to improve engagement in outpatient clinics. The reasons could be technical issues including connectivity, besides patient factors, such as hesitancy, privacy, worries, and confidentiality concerns.^[9,36] These points are to be considered while setting up tele-psychiatric services.

Limitations

The study was limited by sample size; larger sample sizes might provide robust results. The study did not look into the possible reasons for nonattendance. A larger sample

size may more accurately pinpoint the factors associated with missing appointments so that interventions can be explored to reduce the nonattendance rates and address the causes associated with it.

Conclusions

The profile of patients following the adoption of the telepsychiatry model during the COVID-19 pandemic changed in various areas. Nonattenders during COVID-19 were mostly younger and male patients, with increased suicide risk and decreased risk to others. In addition, the difference was also evident in the outcome of nonattendance, regarding contact and discharge from mental health services. However, considering the small sample size as a limitation, there is a need to explore the findings in a larger population attending telepsychiatry facilities. Future projects may look into the possible reasons for the nonattendance along with the perspectives of the patients. As tele-psychiatric assessment and intervention methods will continue to stay, it is important to study the factors that may help in patient engagement with such services.

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Conflicts of interest

There are no conflicts of interest.

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