DOI: 10.14744/DAJPNS.2026.00310
Dusunen Adam J Psychiatr Neurol Sci
2026;39:13-23

RESEARCH ARTICLE

Mental health challenges, preventive behaviors, and perspective on telepsychiatry in patients with chronic mental illness during the pandemic

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ABSTRACT

Objective: This study examines the challenges faced by patients with schizophrenia (SCZ) and bipolar disorder (BD) during the coronavirus disease 2019 (COVID-19) pandemic, including healthcare accessibility, treatment adherence, social support, illness course, vegetative symptoms, concerns about COVID-19, protective healthcare behavior, sources of COVID-19-related information, and attitudes toward telepsychiatry.

Method: A dual-interview method was employed with 200 patients: 100 interviews were conducted by telephone and 100 face-to-face in the outpatient clinic (50 SCZ and 50 BD patients in each group), enabling a comparative analysis of interview modalities.

Results: Among the patients, 22% experienced difficulties reaching their doctors or hospitals, 6.5% were unable to access medications, and 7.5% reported insufficient social support. Avoidance of hospital visits due to COVID-19 concerns was higher in the telephone group than in the outpatient group (61% vs. 31%, p=0.001). Exacerbations occurred in 27% of participants, and treatment nonadherence was observed in 25.5%. Nonadherence, insufficient social support, insomnia, and appetite and weight loss were significantly associated with exacerbations. Nonadherence was highest among patients receiving sodium valproate (40%), whereas clozapine (17.1%) and lithium (20%) were associated with better adherence. Adoption of COVID-19 protective behaviors ranged from 83% to 95%, while only 23% used online resources, with slightly higher use among outpatients. Most patients (92.5%) were unaware of telepsychiatry; however, after receiving an explanation, willingness to use it was higher in the telephone group, except among patients with SCZ or delusional symptoms.

Conclusion: This study highlights the need for tailored healthcare strategies for individuals with chronic mental illnesses. Lack of familiarity with telepsychiatry may contribute to disruptions in the continuity of psychiatric care during crises, underscoring the importance of integrating telehealth services and improving access pathways.

Keywords: COVID-19, schizophrenia, bipolar disorder, telepsychiatry, preventive behavior

How to cite this article: Menku BE, Karadag RF, Kucukkarapinar M. Mental health challenges, preventive behaviors, and perspective on telepsychiatry in patients with chronic mental illness during the pandemic. Dusunen Adam J Psychiatr Neurol Sci 2026;39:13-23.

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Received: September 15, 2025; **Revised:** January 23, 2026; **Accepted:** February 16, 2026

INTRODUCTION

Public health measures and healthcare restrictions during the coronavirus disease 2019 (COVID-19) pandemic disrupted routine outpatient follow-up and access to medications for individuals with severe mental illnesses such as schizophrenia (SCZ) and bipolar disorder (BD).

Pre-pandemic evidence indicates that missed follow-up appointments are associated with worse outcomes in SCZ and BD (1, 2). During the COVID-19 period, service disruptions were accompanied by higher relapse rates and increased rehospitalization or use of acute psychiatric care among individuals with severe mental illness (3). Some settings also reported a shift in inpatient diagnostic case mix toward bipolar and psychosis-related conditions, or a higher proportion of schizophrenia-spectrum diagnoses, suggesting an increased acute-care burden in at least some healthcare systems (4-6). Continuity of treatment was further challenged by procedures requiring in-person contact, including long-acting injectable (LAI) antipsychotic administration and therapeutic drug monitoring (e.g., clozapine, lithium). Prolonged LAI dosing intervals or reduced injection frequency have been associated with relapse (7-11).

Telepsychiatry has been proposed as an alternative strategy to maintain continuity of care (12). However, uptake among patients with schizophrenia-spectrum disorders may be limited by barriers such as low eHealth literacy, limited access to technology, cognitive impairments, and paranoid ideation (13, 14). Administrative and within-system analyses in serious mental illness also suggest heterogeneity across quality-of-care indicators and indicate that increased telemedicine use does not necessarily eliminate treatment interruptions (15, 16). Reports from Turkiye and China similarly demonstrate reduced outpatient contact following the onset of COVID-19 (17, 18). However, individual-level comparisons between patients who continued in-person follow-up and those who avoided it—using multidomain profiling that includes symptom-related outcomes, treatment adherence, social support, and attitudes toward telepsychiatry—remain scarce.

The aim of this study was to explore the clinical and service utilization profiles of individuals with SCZ or BD. Both diagnoses require continuity of outpatient care for relapse prevention and were expected to face similar system-level barriers during the pandemic. We compared patients who continued routine outpatient follow-up with those who avoided in-person visits during the COVID-19 pandemic. We assessed healthcare access, symptom-related outcomes (exacerbations and vegetative symptoms), treatment adherence, social support, and attitudes toward telepsychiatry. We hypothesized that individuals avoiding in-person visits would exhibit higher rates of exacerbation and vegetative symptoms, as well as lower treatment adherence. Lower digital literacy and poorer social support were expected to be negatively associated with both in-person care-seeking and receptiveness to telepsychiatric services.

METHODS

Study Design and Participants

This cross-sectional study was conducted between July and November 2020 at a university hospital outpatient psychiatry clinic. This period was characterized by fluctuating restrictions and frequently revised service arrangements, with measures tightening again as autumn progressed and many clinics operating at reduced in-person capacity. Participants were identified through electronic health records and included adults (≥18 years) with a confirmed diagnosis of schizophrenia (International Classification of Diseases, Tenth Revision [ICD-10]: F20) or bipolar disorder (ICD-10: F31), who had attended at least three outpatient visits in the year preceding the pandemic. Patients with cognitive impairment, dementia, substance-induced psychiatric disorders, or acute psychotic agitation that interfered with interviews were excluded. Acute psychotic agitation was operationally defined as observable agitation or behavioral dyscontrol that prevented completion of the interview and/or required urgent intervention (e.g., rapid tranquilization or restraint), as documented by the treating psychiatrist.

Data Collection and Study Groups

Participants were drawn from a cohort of 672 patients with schizophrenia and 460 with bipolar disorder who had attended regular outpatient visits prior to the pandemic. During the study period, 266 patients with SCZ and 231 with BD continued regular follow-up (defined as ≥3 outpatient visits between January 1, 2019 and March 11, 2020).

Study Groups

Outpatient Group

To represent individuals who maintained access to care, 119 patients attending in-person appointments were approached (balanced 1:1 for SCZ and BD).

Nineteen declined participation, resulting in a final sample of 100 participants (50 with SCZ, 50 with BD).

Phone Group

This group comprised patients who had not accessed psychiatric care during the pandemic. We identified individuals who had missed scheduled appointments and had no hospital visits since the onset of the pandemic. To match the outpatient group, 100 patients were included (50 with SCZ, 50 with BD). The sample size was feasibility-based (no a priori power calculation) within the fixed recruitment period. Of 136 randomly contacted patients, 36 did not participate due to outdated contact information (n=22), unanswered calls (n=7), refusal (n=7), or incomplete interviews (n=2).

The study was explained to all participants (and relatives, when present). Written informed consent was obtained from outpatients, and verbal informed consent was obtained from those interviewed by phone.

Variables and Data Collection Tools

Structured interviews lasting 45-60 minutes were conducted to assess sociodemographic variables (age, gender, education level, employment status, marital status), psychiatric and medical history, current psychiatric symptoms, COVID-19-related concerns, levels of social support, difficulties in healthcare access, treatment adherence, attitudes toward telepsychiatry, and adherence to COVID-19 protective behaviors.

Telephone interviews followed the same structured guide. Symptom-related outcomes were recorded using prespecified standardized probes (presence/absence) in accordance with the study's operational definitions.

Hospital avoidance was operationalized as self-reported avoidance of hospital or outpatient visits due to concerns about COVID-19 infection. System-related access limitations (e.g., inability to reach services, restriction due to public health measures) were recorded separately under healthcare access difficulties.

Definitions and Outcome Measures

All outcomes were specified a priori and operationalized using explicit criteria (thresholds and/or established clinical frameworks), as detailed below. Outcomes were obtained using a structured interview guide (face-to-face or telephone) with predefined response options. Variables were coded according to prespecified decision rules.

Medication Nonadherence (Noncompliance)

Defined as missing prescribed medication for ≥10 consecutive days, taking <75% of the recommended dose in the past month, or missing scheduled doses of long-acting injectables. Nonadherence was coded as present if any criterion was met, based on patient or relative report (and clinical records when available).

Exacerbation

Defined as the presence of depressive, manic, hypomanic, or mixed episodes (BD), or recurrence/worsening of psychotic symptoms (SCZ), based on the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria and assessed using structured DSM-anchored probes. Exacerbation was coded as present if DSM-5 episode or relapse criteria were met during the study period.

Vegetative Symptoms

Defined as self-reported changes in sleep, appetite, or weight compared with the pre-pandemic baseline. Vegetative symptoms were coded as present if a change in any domain was endorsed.

Social Support

Classified as sufficient, partially sufficient, or insufficient based on reported support across three domains: assistance with daily activities, support for treatment continuity/adherence, and financial support. Support was categorized as sufficient when reported in multiple domains, partially sufficient when limited to a single domain, and insufficient when no support was reported.

COVID-19 Protective Behaviors

Assessed using structured items reflecting contemporaneous World Health Organization (WHO) and Ministry of Health recommendations (mask use, hand hygiene, social distancing, avoiding crowded places). Each behavior was recorded as yes/no.

Telepsychiatry Awareness and Acceptability (Willingness to Use)

Prior knowledge of telepsychiatry was recorded (yes/no). After a brief standardized explanation, willingness to use telepsychiatry in the future was recorded (yes/no).

Statistical Analysis

IBM Statistical Package for the Social Sciences (SPSS), version 22.0, was used for statistical analyses. Chi-square tests were applied to categorical variables,

Table 1: Characteristics of the participants

Diagnosis	BD		SCZ	
Interview (int.) group	**Outpatient n (%)**	**Phone int. n (%)**	**Outpatient n (%)**	**Phone int. n (%)**
Age groups				
18-24	3 (6)	2 (4)	4 (8)	4 (8)
25-34	9 (18)	8 (16)	10 (20)	5 (10)
35-44	13 (26)	15 (30)	13 (26)	11 (22)
45-54	10 (20)	13 (26)	16 (32)	16 (32)
55 and over	15 (30)	12 (24)	7 (14)	14 (28)
Test statistics	χ^2=1.126 (df)=4	p=0.890	χ^2=4.167 (df)=4	p=0.384
Gender				
Female	30 (60)	28 (56)	19 (38)	22 (44)
Male	20 (40)	22 (44)	31 (62)	28 (56)
Test statistics	χ^2=0.041 (df)=1	p=0.839	χ^2=0.372 (df)=1	p=0.0572
Marital status				
Married	26 (52)	29 (58)	17 (34)	23 (46)
Never married	14 (28)	13 (26)	30 (60)	22 (44)
Widowed/separeted	10 (20)	8 (16)	3 (6)	5 (10)
Test statistics	χ^2=0.423(df)=2	p=0.809	χ^2=2.632 (df)=2	p=0.268
Education				
Primary school	14 (28)	17 (34)	16 (32)	18 (36)
High school	23 (46)	16 (32)	24 (48)	23 (46)
University	13 (26)	17 (34)	10 (20)	9 (18)
Test statistics	χ^2=2.080 (df)=2	p=0.353	χ^2=0.192 (df)=2	p= 0.909
Occupation				
Housewife	5 (10)	14 (28)	8 (16)	10 (20)
Employed	31(62)	17 (34)	12 (24)	14 (28)
Retired	12 (24)	7 (14)	9 (18)	10 (20)
Unemployed	12 (14)	12 (24)	21 (42)	16 (31)
Test statistics	χ^2=6.00 (df)=4	p=0.112	χ^2=1.104 (df)=3	p=0.776
Chronic medical illness-present	23 (46.0)	21 (42.0)	15 (30.0)	26 (52.0)
Absent	27(54)	29 (58)	35 (70)	24 (48)
Test statistics	χ^2=0.162 (df)=2	p=0.687	χ^2=5.002 (df)=2	p=0.025
Sufficient social support	29 (58)	26 (52)	33 (66)	27 (54)
Insufficient social support	21 (39)	24 (48)	17 (34)	23 (46)
Test statistics	χ^2=0.412 (df)=2	p=0.812	χ^2=3.001 (df)=2	p=0.212
COVID-19 infection	1 (2)	2 (4)	2 (4)	2 (4)
COVID-19 infection in the family	6 (12)	6 (12)	6 (12)	9 (18)

BD: Bipolar disorder; SCZ: Schizophrenia.

while the Mann–Whitney U test was used for non-normally distributed continuous variables. Statistical significance was set at $p<0.05$.

Ethics Committee Approval

The study was approved by the Gazi University Ethics Committee (July 6, 2020; Approval No: 406) and the Turkish Ministry of Health, COVID-19 Research Evaluation Commission (June 1, 2020; Approval No: T14-37-57). The study adhered to the principles of the Declaration of Helsinki and received no financial support.

Table 2: Psychotropic drugs used by participants and treatment noncompliance

	SCZ (n=100)*	BD (n=100)*	All participants n (%)	Treatment noncompliance n (%)	Lab. testing n (%)**
LAI antipsychotics	20	3	23 (11.5)	6 (26.1)	NA
Lithium	1	19	20 (10.0)	4 (20.0)	(11) 55.5
Clozapine alone or combinations	34	1	35 (17.5)	6 (17.1)	(20) 58.8
VPA	3	42	45 (22.5)	18 (40.0)	(14) 31.0
Oral atypical antipsychotic monotherapy	22	37	59 (29.5)	13 (22.0)	NA
Oral atypical antipsychotic combinations	5	12	17 (8.5)	5 (29.4)	NA
Oral typical antipsychotic monotherapy	4	1	5 (2.5)	0 (0)	NA
Lamotrigine	–	8	8 (4)	0 (0)	NA
Antidepressants	16	26	42 (21)	7 (16.7)	NA

SCZ: Schizophrenia; BD: bipolar disorder; LAI: Long-acting injectable antipsychotic; VPA: valproic acid; NA: Not applicable; * Because each group included 100 patients, n and % are identical; therefore, % is not presented; ** This column represents patients who were able to visit the hospital for a CBC test or blood drug level monitoring during the pandemic.

RESULTS

Sociodemographic Characteristics of Participants

Baseline characteristics were comparable between the telephone and outpatient groups and across diagnoses (mean age: 44.7±12.5 years; p>0.05) (Table 1). Chronic medical conditions were present in 42% of participants, most commonly hypertension (n=26), diabetes (n=23), and hyperlipidemia (n=16). Overall rates were similar between the SCZ and BD groups (44% vs. 41%). However, within the SCZ group, patients in the telephone group had higher comorbidity rates than those in the outpatient group (52% vs. 30%; p=0.025). Confirmed COVID-19 infection was rare (3.5%, n=7). Most participants rated their perceived social support as adequate (57.5%) or partially sufficient (35%), while 7.5% reported insufficient support. No significant differences were observed between groups or diagnoses.

Healthcare Access During the Pandemic and Treatment Compliance

Overall, 63.5% of participants (n=127) missed at least two hospital visits during the pandemic. Missed visits were significantly more common in the telephone group (78%) than in the outpatient group (49%; χ^2=18.143, p=0.001). Fear of COVID-19 infection was the most frequently reported reason for missed visits (61% vs. 31%; χ^2=18.116, p=0.001).

Twenty-two percent of participants (n=44) reported being unable to contact healthcare providers due to pandemic-related restrictions, with no significant difference between the telephone (20.8%) and outpatient (23.2%) groups (p>0.05). Twelve patients who experienced exacerbations requiring hospitalization reported barriers to accessing care, including service closures. Among telephone-group patients, hospital avoidance rates were similarly high in the BD (82%) and SCZ (74%) subgroups (p>0.05).

Treatment Compliance

During the pandemic, 25.5% of participants (n=51) reported treatment noncompliance. Noncompliance was more frequently attributed to side effects or personal refusal (19%, n=38) than to limited access to medications (6.5%, n=13). The remaining 74.5% (n=149) reported no access problems. Noncompliance rates did not differ between the SCZ and BD groups (21% vs. 30%; p>0.05). By medication types, noncompliance was highest among patients receiving valproate and certain antipsychotic regimens and lowest among those receiving clozapine and lithium (Table 2). Half of the sample required therapeutic drug monitoring or complete blood count (CBC) testing (50%, n=97). Monitoring rates were lowest among valproate users (31.0%) compared with lithium (55.5%) and clozapine users (58.8%) (χ^2=7.166, df=2, p=0.028), with testing typically conducted at 2–6-month intervals (Table 2).

Illness Course

During the pandemic, 27% of participants (n=54) experienced exacerbations, while 73% (n=146) remained clinically stable. Exacerbations were numerically more frequent in the BD group (31%; 19% depressive episodes, 12% manic episodes) than in the SCZ group (23%; 19% psychotic episodes, 4% depressive episodes), approaching statistical significance (p=0.060). Exacerbations were also more

Table 3: The characteristics of patients with and without exacerbations

	Nonexacerbated (n=146)		Exacerbated (n=54)		χ^2 (df)	p
	n	%	n	%		
Interview group						
Outpatient	67	45.9	33	61.1	3.653 (1)	0.050
Phone	79	54.1	21	38.9		
Diagnosis						
SCZ	77	52.7	23	42.6	1.624 (1)	0.203
BD	69	47.3	31	57.4		
Missed regular visits						
Yes	92	63.0	35	64.8	0.055 (1)	0.814
No	54	27.0	19	35.2		
Treatment noncompliance	26	17.8	25	46.3	16.840 (1)	**<0.001**
Treatment compliance	120	82.2	29	53.7		
Sufficient social support	97	66.4	18	33.3		
Insufficient social support*	53	33.6	32	66.3	13.782 (1)	**0.001**
Vegetative symptoms						
Sleep						
No change	115	76.7	7	14.0		
Hypersomnia	8	5.3	5	10.0		
Insomnia	27	18.0	38	76.0	64.214	**<0.001**
Body weight						
No change	105	70.0	31	62.0		
Weight gain	39	26.0	9	18.0		
Weight loss	6	4.0	10	20.0	13.353	**<0.001**
Appetite						
No change	124	82.7	19	38.0		
Increased	18	12.0	6	12.0		
Reduced	8	5.3	25	50.0	55.807	**<0.001**

*At least insufficient in two domains; SCZ: Schizophrenia; BD: Bipolar disorder.

common among outpatients than among those interviewed by telephone (Table 3).

Diagnosis and missed hospital visits were not associated with exacerbations. However, noncompliance, insufficient social support, and vegetative symptoms (insomnia, weight loss, decreased appetite) were more common among patients who experienced exacerbations (Table 3). Suicidal ideation was reported by 3% of participants (n=6), two of whom required emergency care. Treatment regimen was not associated with exacerbation rates (p>0.05). In the overall sample, insomnia (32.5%) and weight gain (24%) were the most common symptoms. Weight gain was more frequent in the telephone group than in the outpatient group (30% vs. 18%; p=0.028). Compared with SCZ patients, those with BD reported higher rates of sleep disturbance (48% vs. 30%; p=0.006) and appetite loss (23% vs. 10%; p=0.047). When analyzed by episode type, insomnia (manic 92.3%, psychotic 72.2%, depressive 65.2% vs. stable 17.1%), weight loss (depressive 34.8%, manic 15.4%, psychotic 11.1%, stable 2.7%), and appetite loss (manic 69.2%, depressive 52.2%, psychotic 33.3%, stable 4.1%) differed significantly across groups (all p<0.001). Active delusions were present in 23% of participants (n=46), including COVID-19-related delusions in 4% (n=8) of SCZ patients.

Compliance with Health Protective Behavior and Its Relationship with COVID-19-Related Concerns

COVID-19-related concerns were most commonly related to fear of infection (60.5% for themselves and 40% for relatives), disruption of psychiatric care (11%), and financial difficulties (4.5%). Depressive symptoms were most frequently associated with social isolation

Table 4: Compliance of participants with preventive measures against COVID-19 infection

Preventive measures	Compliant		Noncompliant	
	n	%	n	%
Staying at home/avoiding social interaction	173	86.5	27	13.5
Avoiding public areas	147	73.5	53	26.5
Minimized contact with family and friends	129	64.5	71	35.5
Washing hands and using hand sanitizer	166	83.0	34	17.0
Wearing face mask	190	95.0	10	5.0
Wearing gloves	31	15.5	169	84.5
Disinfecting items and surfaces	58	29.0	142	71.0

COVID-19: Coronavirus disease 2019.

and inactivity (34%), COVID-19-related losses (4.5%), and financial problems (4%). Overall compliance with core preventive measures was high, whereas glove use and surface disinfection were relatively uncommon (Table 4). Between-group comparisons showed greater avoidance of family and friends in the telephone group, but higher rates of mask use and surface disinfection in the outpatient group. Patients with SCZ were more likely than those with BD to use gloves, and patients who experienced exacerbations demonstrated lower compliance with mask use and handwashing (Table 4). Participants reporting infection-related concerns showed greater adherence to several core preventive behaviors (e.g., staying at home and hand hygiene) compared to those without such concerns (Table 4), while other preventive behaviors did not differ across subgroups.

Information Sources About the Pandemic

Television was the primary source of COVID-19 information for 94% of participants (n=188). Internet use was reported by 23% of participants and was slightly higher among BD patients (25%) than SCZ patients (21%; p>0.05). Internet use was also more common among outpatients than among those interviewed by telephone (28% vs. 18%; p>0.05).

Internet use varied significantly by age (p<0.001), being lowest among participants older than 55 years (4%, n=2) and highest among younger age groups (23.6%–50%).

Knowledge and Attitudes Toward Telepsychiatry Practices

Most participants had no prior knowledge of telepsychiatry (92.5%, n=185), and only 7.5% reported any familiarity (limited knowledge: 6.5%, n=13; familiar: 1%, n=2). After receiving a brief explanation, 71% (n=142) indicated willingness to use telepsychiatry services. Acceptance was higher in the telephone group compared to the outpatient group (82% vs. 60%; p=0.001) and higher among BD patients than SCZ patients (80% vs. 62%; p=0.005). COVID-19-related concerns were associated with greater acceptance (p<0.001), whereas the presence of active delusions was associated with lower willingness to use telepsychiatry (p=0.019). Recent exacerbations were not significantly associated with attitudes toward telepsychiatry.

DISCUSSION

In this cross-sectional observational study, we investigated the challenges faced by individuals with bipolar disorder and schizophrenia during the COVID-19 pandemic. Gender, education level, marital status, and occupation were comparable across groups. However, our findings indicate that patients who were unable to access healthcare for routine psychiatric follow-up differed in characteristics and needs from those who maintained access.

We found that 63.5% of participants experienced difficulties accessing healthcare. The primary reason (72%) was fear of infection, and 22% reported being unable to contact their doctors or hospitals due to pandemic-related restrictions. These findings indicate that participants experienced significant challenges in accessing healthcare during the COVID-19 period, most commonly related to curfews, appointment restrictions, and infection-related fears among individuals with chronic mental illnesses (19-22).

Avoidance of hospital visits due to COVID-19 concerns differed significantly between the telephone and outpatient groups (61% vs. 31%), suggesting higher infection-related anxiety in the telephone group. In contrast, the outpatient group reported lower levels of infection-related concern. However, given the cross-sectional design and the small number

of confirmed COVID-19 cases, causal inferences regarding subsequent exposure risk cannot be made (23-25). Additionally, a higher proportion of patients in the SCZ telephone group had chronic medical conditions such as diabetes and hypertension. This clinically meaningful comorbidity burden may have contributed to differences in COVID-19 risk perception and healthcare-seeking behavior. These patients may have been more aware of their vulnerability to COVID-19 infection, potentially leading to greater avoidance of hospital visits. At the same time, these findings underscore the need to improve medical care accessibility for high-risk populations (20, 21, 24).

Psychiatric services were also disrupted, with hospital wards repurposed for COVID-19 care, contributing to a decline in psychiatric hospitalizations overall (21, 22, 26). In our study, 9.4% of participants required hospitalization but encountered difficulties accessing inpatient services. These results highlight the importance of ensuring continuity of mental health services during public health crises.

Medication disruptions were reported by 25.5% of participants, with 19% attributable to noncompliance. These rates are consistent with both pre-pandemic and during-pandemic findings, which indicate that medication noncompliance among individuals with serious mental illnesses averages approximately 20%-30%. Notably, only 6.5% of participants reported difficulties accessing medication, likely reflecting government measures implemented to support individuals with chronic mental illnesses during the pandemic (27-29).

Patients receiving clozapine and lithium demonstrated the highest compliance rates, consistent with pre-pandemic evidence (30, 31). These patients also showed greater adherence to laboratory monitoring requirements compared to those receiving valproic acid. This pattern suggests a positive association between routine monitoring and medication adherence, underscoring the importance of regular follow-up in psychiatric care.

Overall, 27% of participants experienced exacerbations during the pandemic (BD: 28%, SCZ: 22%), in line with previous reports (23). Exacerbations were more frequent among outpatients (31%) than among patients interviewed by telephone (19%), possibly reflecting help-seeking behavior during the pandemic, whereby symptom worsening prompted in-person visits despite infection concerns. Medication noncompliance was strongly associated with exacerbations (45.1% vs. 18.1%) (9, 27, 32).

Social support plays a critical role in preventing exacerbations (33, 34). Participants reporting adequate social support had lower exacerbation rates (15.7%) compared to those reporting partial (40%) or inadequate support (26.7%). Insufficient support may contribute to more severe symptom profiles, reduced access to care, and increased stress levels (32-34). These findings emphasize the essential role of social networks in maintaining mental health during public health crises.

All types of exacerbations (psychotic, depressive, and manic) were associated with higher rates of insomnia, weight loss, and reduced appetite compared to stable cases (35, 36). Additionally, 24% of participants reported weight gain, which may contribute to increased health risks (37). These findings underscore the importance of monitoring vegetative symptoms—readily identifiable even by nonpsychiatric clinicians—to help mitigate health complications during crises.

Most participants adhered to pandemic guidelines, with high rates of mask use (95%), staying at home (86.5%), and handwashing (83%). Similar adherence patterns have been reported in the general populations, suggesting that individuals with severe mental illnesses remained aware of preventive recommendations (38-40). These findings indicate that targeted public health messaging and supportive interventions, such as accessible information delivery, may help sustain and further enhance compliance within this population.

Patients interviewed by telephone were more likely to avoid social interactions (73% vs. 56%), possibly reflecting heightened caution. In contrast, outpatients demonstrated greater adherence to measures such as mask use (100% vs. 90%) and surface disinfection (39% vs. 19%), likely due to increased exposure outside the home (40-42). However, these unadjusted group differences may also reflect potential confounding factors, including age, illness severity, medical comorbidity, and differential access to COVID-19-related information.

Patients experiencing exacerbations were less likely to use masks and maintain adequate hand hygiene, consistent with evidence that active mood or psychotic symptoms may increase vulnerability to COVID-19 infection (43-45).

Our study found that 94% of participants, regardless of interview method or psychiatric diagnosis, relied on television as their primary source of COVID-19 information. Despite the increase in internet and social media use among individuals with severe mental illnesses over the past decade, television remained the

dominant information source during the pandemic (46-48). Similarly, research in the general population reported that 80% relied on television and 70% on the internet (including 20% via social media and 12% via websites) (49). Consistent with previous research, older patients reported less frequent use of the internet and social media (47, 48). This limited digital engagement underscores the need for effective strategies to disseminate information and facilitate telepsychiatry participation among older adults.

Although the use of telepsychiatry increased during the pandemic due to public health restrictions, both awareness and accessibility remained low (50). In our sample, 92.5% of participants were unfamiliar with telepsychiatry, and only 1% reported adequate knowledge. However, after receiving a brief explanation, 71% expressed willingness to use telepsychiatry services. Because willingness was assessed immediately following an informational explanation, the observed acceptability may partially reflect an information or priming effect rather than baseline attitudes. Patients interviewed by telephone demonstrated higher acceptance (82%) than outpatients (60%), suggesting a possible association between perceived infection risk and telepsychiatry adoption. Although prior studies indicate that paranoia and referential delusions may reduce telepsychiatry engagement among individuals with schizophrenia (51), 60% of patients in our SCZ group expressed willingness to use these services. This receptivity may be attributable to the long-term, trust-based therapeutic relationships established at our institution.

Future mental health policies should consider integrating telepsychiatry into routine psychiatric care, while addressing issues of accessibility and infrastructure.

This study has several limitations. Its single-center, cross-sectional design limits generalizability and precludes causal or directional inferences. Additionally, because participants were recruited from routine outpatient follow-up visits, the findings may underrepresent individuals without stable access to care. Because no a priori power calculation was performed, some subgroup comparisons may have been underpowered to detect small effects. Missed follow-up visits were recorded dichotomously (≥2 missed visits) rather than as an exact count, precluding analyses based on the total number of missed appointments. Additionally, only a small number of participants had confirmed COVID-19 infection (n=7); therefore, infection-related findings should be interpreted with caution.

Some data were self-reported and are therefore subject to recall and response bias. Moreover, a portion of the sample was assessed via telephone, which may have reduced standardization in symptom probing and quantification and precluded assessment of nonverbal clinical cues. Telephone-based assessments may also reduce granularity and introduce measurement variability, with potential misclassification for certain variables. Nevertheless, key outcomes were specified a priori and operationalized using explicit thresholds and a structured assessment guide (and, where applicable, established clinical frameworks). Future longitudinal studies are needed to evaluate the sustained impact of public health crises on psychiatric populations.

CONCLUSION

This single-center cross-sectional study provides clinically relevant insights into the challenges faced by patients with schizophrenia and bipolar disorder during the COVID-19 pandemic, most commonly limited access to care and infection-related concerns. Importantly, not all patients were severely affected: approximately three-quarters remained clinically stable, whereas about one-quarter experienced symptom exacerbations associated with medication noncompliance and lower perceived social support. These findings underscore the value of structured follow-up and early monitoring of vegetative symptoms to maintain continuity of care during service disruptions. Telepsychiatry was largely unfamiliar to participants, highlighting an opportunity to implement structured remote follow-up pathways and provide practical support to enhance patient engagement during similar crises.

Ethical Approval: The Gazi University Ethics Committee granted approval for this study (Date: 06.07.2020, Number: 406).

Informed Consent: Informed consent was obtained from all participants prior to data collection. Written consent was obtained from outpatients, and verbal consent was obtained for telephone interviews.

Conflict of Interest: The authors declared that there is no conflict of interest.

Financial Disclosure: The authors declared that this study has received no financial support.

Use of AI for Writing Assistance: The authors declared that Minor language and grammar refinements were made using ChatGPT (OpenAI, GPT-4o, May 2025 version) to enhance clarity and readability. The tool was not used to generate scientific content, analyze data, or draw interpretations.

Contribution Categories		Author Initials
Category 1	Concept/Design	B.E.M., R.F.K., M.K.
	Data acquisition	B.E.M.
	Data analysis/Interpretation	B.E.M., R.F.K.
Category 2	Drafting manuscript	B.E.M., R.F.K., M.K.
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Category 3	Final approval and accountability	B.E.M., R.F.K., M.K.
Other	Supervision	R.F.K., M.K.

Acknowledgments: We thank the participants for their time and contribution to this study.

Peer-review: Externally peer-reviewed.

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