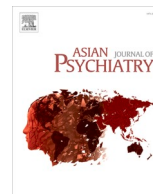




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Suicidal behavior in new patients presenting to the Telepsychiatry services in a Tertiary Care center: An exploratory study

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ABSTRACT

Background: The COVID-19 pandemic has led to expansion of telepsychiatry services and formulation of telemedicine guidelines. However, the telemedicine guidelines are not very clear about psychiatric emergencies, such as suicidal behaviour, resulting in psychiatrists facing dilemma about handling such situations.

Aim: To evaluate the prevalence of suicidal behaviour in new patients presenting to the Telepsychiatry services in a Tertiary Care centre.

Methods: 1065 new adult patients (aged > 18 years) registered with telepsychiatry services were assessed for suicidal behaviour, in the form of death wishes, suicidal ideations, plans, attempts (lifetime/recent) and non-suicidal self-injurious behaviour (NSSI) (lifetime/recent).

Results: In terms of suicidal behaviour, in the last few weeks prior to assessment 14.4% of the patients had death wishes, 2.4% had thoughts of killing themselves, 0.9% had attempted suicide in the lifetime and 0.6% in the last few weeks, 1.1% had active suicidal ideations at the time of assessment, 0.6% had active suicidal plan, 1.3% had history of NSSI in the lifetime and 0.5% had NSSI behaviour in the last few weeks. Based on the current suicidal behaviour, 1.3% of the patients were asked to report to the emergency immediately, 0.5% were given an appointment within 72 h for follow-up, and 14.4% were explained high risk management.

Conclusions: Overall prevalence of suicidal behavior is relatively low in new patients seeking psychiatric help through telepsychiatry services.

1. Introduction

Suicide is a worldwide phenomenon that affects all age groups. According to World Health Organization (WHO) data, about 800,000 suicides are documented worldwide every year (Bachmann, 2018). The deaths due to suicide are estimated to be 10.7 per 100,000 individuals, with variations across age groups and countries. Suicide accounts for 1.4% of the global burden of diseases and is the second leading contributor of death in the 15–29 years age group (Zubrick et al., 2016; Nock et al., 2008). About three-fourths of all completed suicides take place in Low-and-middle-income (LAMI) countries (Belete et al., 2021). A multicentric study conducted in five LAMI countries reported the prevalence of suicidal ideation to be 3.5–11.1% among the community samples, while the prevalence of suicidal ideation was 5–14.8% among people evaluated in the health facilities (Jordans et al., 2018). A nationwide community survey using a computer-aided telephone

interview with residents aged ≥ 15 years, selected by a stratified, proportional randomization method in different geographical areas of Taiwan, reported weighted prevalence of suicidal ideations to be 2.84% in the past week, 5.5% in the past year, and 18.5% during the lifetime (Lee et al., 2010).

Completed suicide is often preceded by suicidal behavior, including death wishes, non-fatal self-injury, suicidal ideations, and suicidal attempts (Nock et al., 2008a, 2008b). Hence, all high-risk patients must be evaluated for suicidal behavior. One of the leading aims of the WHO Mental Health Action Plan for 2013–2020 was to decrease the entire spectrum of suicidal phenomena like suicidal behavior and suicidal ideation by 10% (Bifftu et al., 2021).

COVID-19 pandemic emerged as a major health crisis and has exposed the ill prepared public health structure across the globe (Tandon, 2021a). With the emergence of COVID-19, telepsychiatry services have been unfurling (Chen et al., 2020; Grover et al., 2020c).

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Considering the need, the Government of India approved Telemedicine Guidelines for providing telemedicine services (Board of Governors, 2020 in supersession of the Medical Council of India Telemedicine Practice Guidelines Enabling Registered Medical Practitioners to Provide Healthcare Using Telemedicine). This led to an expansion of telepsychiatry services across the country (Grover et al., 2020a; 2020b; 2020c). However, many mental health professionals have raised concerns for providing telepsychiatry services, mainly when a patient from a remote location exhibits suicidal behavior, threatens homicidal behavior, or marked agitation. Other concerns raised by mental health professionals include increased litigation (Basavarajappa et al., 2022). This becomes much more pertinent when the patient is contacting the telepsychiatry services alone. Thus, psychiatrists worldwide face dilemmas about handling such a situation while providing telepsychiatry services. However, the prevalence of suicidal behavior in patients presenting to telepsychiatry services has not been evaluated. In this background, this study aimed to assess the prevalence of suicidal behavior in new patients presenting to the Telepsychiatry services in a Tertiary Care Center.

2. Methodology

This study was conducted in a tertiary care hospital. The study was started after obtaining permission from the institute ethics committee and obtaining verbal consent from the participants. If the person was found to be lacking capacity, then consent was obtained from caregiver (s) and if required such patients were called for in-person evaluation. Capacity of the patients was evaluated according to the Mental Health Care Act, 2017.

The department started regular telepsychiatry outpatient services during the ongoing COVID-19 pandemic. Patients/caregivers from any part of the country could register with telepsychiatry services. At the time of registration, the patients/caregivers are requested to provide basic demographic details and their phone numbers. Once registered, the patients/caregivers are called up by the treating team (usually a Senior Resident) for the initial evaluation. The diagnosis is generally made per the International Classification of Diseases, tenth revision (ICD-10) criteria. At the first assessment (usually based on a video call), besides the diagnostic work-up, patients are also evaluated for suicidal behavior in their lifetime, in the recent past, and at the time of assessment. This assessment involves about 10–15 min. Based on this assessment, the management plan is formulated.

The suicidal behaviors, including death wishes, suicidal ideations, recent attempts, and plans, are assessed. Based on this evaluation, subsequent follow-up on teleservices, in-person face-to-face follow-up (either at the institute or the nearest available services), or asking the patient/family to immediately attend the emergency services (either at the institute or the nearest available services) is determined. If the patient denies any suicidal wishes or behavior, a regular follow-up is advised. If patient/caregivers reported that the patient has any suicidal behavior (i.e., active suicidal ideation, attempts, or plan), then, according to the need, patients are either given a video consultation appointment within 72 h or are asked to contact the emergency services of the institute immediately. If the patient is unable to get the emergency services of the institute due to logistic issues, they are asked to contact the nearest local services at once. All the patients considered to be at high risk for suicidal attempts are also advised high-risk management (i.e., not to leave the patient alone at any given time-point or not to remain alone at any given time, keeping away all the potentially harmful objects from the patient, medications to be supervised by the family member, contact the emergency services whenever needed, patients encouraged to share their suicidal ideations and plans, if any with the family members or the clinicians).

A prescription is sent to the patient through WhatsApp. The patients/caregivers are also given a date for detailed work-up, which involves the collection of detailed history by a trainee resident (either by voice call or

a WhatsApp video call or a mix of the two), followed by discussion of the clinical details with the consultant and interview of the patient by the consultant for clarification. The trainee resident usually spends 90–120 min evaluating and collecting the information from all the available sources. Similarly, the consultant spends 20–45 min (usually by zoom meeting or WhatsApp video call) with the patient and the family to clarify the diagnosis. Based on these evaluations, a final diagnosis is arrived at, and a detailed management plan is formulated. Then the patient is followed-up regularly (either by telepsychiatry services or in-person, or both the methods) to provide psychiatry care. In case of emergency, the patients are called up to the hospital's emergency services or are asked to contact the nearest health care facilities.

For this study, all new adult patients (aged ≥ 18 years) registered with the telepsychiatry services from 19th July to 30th Sept 2021 were included. Once initially screened by the senior resident for the possible diagnosis and suicidality, they were explained about the study, and verbal consent was obtained. They were told that if they refused to participate in this study, their care would not be affected in any way. Those who provided consent were assessed on Clinical Global Rating (CGI) scale to determine the severity of illness (Busner and Targum, 2007). Additional details about suicidal behavior were evaluated in the form of death wishes, suicidal ideations, plans, attempts (lifetime/recent), and non-suicidal self-injurious behavior (NSSI) (lifetime/recent). The operational definitions for the various terms, i.e., death wishes (a conscious desire to die, without any active suicidal ideations or plans), suicidal ideations (is defined as wish or preoccupation with death and suicide), recent attempts (having made an attempt of self-harm with the intention of ending life), suicidal plans (harbouring a plan to end life by suicide) and NSSI (an act of self-harm which involves the destruction of the body tissue without any suicidal intent for the purposes that are not socially approved, and include cutting, scratching the skin, biting or burning, etc.) were formulated for the study. The frequency and type of follow-ups were determined based on the detailed assessment of suicidal behavior. The patients who were considered to be at high risk for suicide were given an early work-up date or called to the emergency.

The data obtained were analyzed by using Statistical Package for Social Sciences, 14th Version (SPSS-14). Categorical variables were analyzed with frequencies and percentages and continuous variables with mean and standard deviations. Comparisons were made by using the Chi-square test and t-test.

3. Results

During the study, 1065 patients were evaluated, all of whom consented to participate. The mean age of the study sample was 42.37 (SD: 14.71) years, with nearly equal gender distribution (Table 1). In about three-fifths (58.4%) of the patients, one or more caregivers were also available at the time of initial assessment by the Senior Resident. The mean duration of illness was 52.78 (SD: 76.67; range: 4–48) months at the first assessment.

On the CGI severity scale, a maximum number of patients were considered to be moderately ill (83.5%), and a tiny proportion was considered to be either markedly ill (3.8%) or severely ill (0.7%).

About one-fifth (20.2%) of the patients had a family history of psychiatric illness. Nearly one-fourth (27%) had at least one physical comorbidity, with hypertension (9.7%) being the most common, followed by diabetes mellitus (8.1%) and thyroid dysfunction (5.0%) (Table 3).

In terms of a primary diagnostic category (i.e., the diagnosis for which the patient consulted the services requiring initial attention or earlier onset), neurotic, stress-related, and somatoform disorders (F40-F49) formed the largest diagnostic category, followed by mood disorders. Each of these diagnostic categories constituted about one-third of the total patients. In terms of individual diagnosis, depressive disorders (first episode/recurrent depression) formed the largest diagnostic group. About one-tenth of the total patients were diagnosed with primary

Table 1
Sociodemographic profile, physical comorbidity, and severity of psychiatric illness of the sample (N = 1065).

Variables	Mean (SD)/Frequency n (%) [Range]
Age (in years) Mean (SD) (Range)	42.37 (14.71) [16–90]
Gender – n (%)	
Male	549 (51.5)
Female	516 (48.5)
Caregivers – n (%)	
Available	622 (58.4)
Not Available	443 (41.6)
The total duration of illness (in months) (Mean ± SD) (Range)	52.78 (76.67)[0.25 – 600]
Family History of Psychiatric illness	215 (20.2)
Physical comorbidity	
Diabetes Mellitus	86 (8.1)
Hypertension	103 (9.7)
Thyroid dysfunction	53 (5.0)
Parkinson’s disease	4 (0.4)
Epilepsy	23 (2.2)
Head Injury	18 (1.7)
Other medical History	95 (8.9)
Total number of patients with physical comorbidity	288 (27.04)
CGI: Severity of Illness	
0: Not assessed	0 (0)
1: Normal, not at all ill	1 (0.1)
2: Borderline mentally ill	11 (1)
3: Mildly ill	117 (11)
4: Moderately ill	889 (83.5)
5: Markedly ill	40 (3.8)
6: Severely ill	7 (0.7)
7: Among the most extremely ill patients	0 (0)

Table 2
Diagnostic Profile of the study sample.

Variables	Primary Psychiatric Diagnosis n (%)	Secondary Psychiatric Diagnosis n (%)	Any Diagnosis (primary or secondary) n (%)
Organic Disorder (F00-F09)	70 (6.6)	12 (1.1)	82 (7.7)
Substance use disorder (F10-F19)			
Alcohol	11 (1)	22 (2.1)	33 (3.1)
Opioid	0 (0)	10 (0.9)	10 (0.9)
Cannabis	0 (0)	2 (0.2)	2 (0.2)
Benzodiazepines	0 (0)	2 (0.2)	2 (0.2)
Tobacco	0 (0)	11 (1)	11 (1)
Psychotic Disorder(F20-F29)	111 (10.4)	15 (1.4)	126 (11.8)
Mood (Affective) Disorders (F30–39)	368 (34.6)	19 (1.8)	387 (36.4)
Depressive Disorders	317 (29.8)	17 (1.6)	334 (31.4)
Bipolar Disorder	51 (4.8)	2 (0.2)	53 (5)
Neurotic, stress-related, and somatoform disorders (F40-F49)	378 (35.5)	10 (1)	388 (36.1)
Anxiety Disorder (Including Phobic anxiety disorders, other anxiety disorders, and Dissociative disorders)	232 (21.8)	6 (0.6)	238 (22.4)
Obsessive Compulsive Disorder	39 (3.7)	2 (0.2)	41 (3.9)
Adjustment Disorder	32 (3.0)	1 (0.1)	33 (3.1)
Somatoform Disorder	75 (7.0)	1 (0.1)	76 (7.1)
Personality Disorder (F60-F69)	17 (1.6)	5 (0.5)	22 (2.1)
Others (including but not limited to sexual and sleep disorders)	118 (11.1)	34 (3.2)	152 (14.3)

Table 3
Suicidal behavior amongst the sample.

Suicidal behavior Variables	n (%)
Lifetime	
Non-suicidal self-injurious behaviors (Including the current behavior)	14 (1.3)
Suicidal Attempt (Including the current behavior)	10 (0.9)
Current (i.e., in the last one week)	
Death Wishes	153 (14.4)
Thoughts about killing oneself, i.e., suicidal ideations (in the past few weeks) (Including the current behavior)	26 (2.4)
Active suicidal ideations, i.e., suicidal ideations at the time of assessment	13 (1.1)
Frequency of suicidal ideations	
< 1 time per week	8 (0.75)
once-a-week	5 (0.46)
> 1 time/week	5 (0.46)
Once a day	4 (0.3)
> 1 time/day	4 (0.3)
Suicidal Attempt (in the past few weeks)	6 (0.6)
Suicidal plans	6 (0.6)
Non-suicidal self-injurious behaviors in the recent past	5 (0.5)
Total number of patients considered to be at high risk of suicide attempt in future (i.e., only active suicidal ideations with or without a plan (n = 13), recent suicidal attempt but no active suicidal ideation (n = 1), recent NSSI, but no current suicidal ideation or plans (n = 4)	18 (1.69)
Interventions did for patients considered as high risk (n = 18)	
High risk+ appointment in 72 h	5 (0.5)
High risk+ Emergency	13 (1.3)

psychotic disorder (Table 2). Other diagnostic groups included sleep and sexual disorders (11.1%), organic disorders (6.6%), and personality disorders (1.6%). When additional diagnosis (i.e., second diagnosis-which also required clinical attention) was considered, neurotic, stress-related, and somatoform disorders were the largest diagnostic category, followed very closely by mood disorders (Table 2).

3.1. Suicidal behavior in the study sample

About one-seventh (14.4%) of the patients reported passive death wishes at the assessment time. Only a tiny proportion of the patients reported having suicidal thoughts in the past few weeks (n=26; 2.4%). Out of the 26 patients who reported having suicidal thoughts in the past few weeks, 13 (1.1%) patients reported suicidal ideations at assessment, and out of these, half (6; 0.6%) also harbored a suicidal plan. The history of attempted suicide in their lifetime was present in only 0.9% of the patients, and 0.6% reported having made a suicide attempt in the last few weeks. All except one patient, who had made a recent suicidal attempt, still had suicidal ideations at the assessment time. NSSI was reported by 1.3% of individuals during their lifetime and by 0.5% of participants in the last few weeks (Table 3). Of those who reported NSSI in their lifetime, two had also made a suicidal attempt in their lifetime, and one had made a suicide attempt in the recent few weeks.

Based on these evaluations, 14.4% were explained only high-risk management. In addition to high-risk management, 1.8% (n = 18) individuals were considered at a very high-risk for future suicide and required active surveillance. Out of those considered to be at high risk, 5 (0.5%) patients were given an appointment within 72 h, and 13 (1.3%) patients were advised to visit an emergency. Most of the other patients were asked to follow up non-urgently (95.9%) (Table 4).

3.2. Factors associated with current suicidal ideation and death wishes

3.2.1. Demographic factors

When those with and without current active suicidal ideations were compared, no significant difference was noted in the demographic

Table 4
Disposition of the patients.

Disposition	Frequency (%)
Non-urgent follow up	1021 (95.9)
Explained high-risk management	153 (14.4)
An appointment is given within 72 h	23 (2.2)
For suicidal behavior	5 (0.5)
For any other reason	18 (1.7)
Asked to come to emergency immediately	18 (1.7)
For suicidal behavior	13 (1.3)
For any other reason	5 (0.5)
Asked to contact local emergency services	1 (0.1)

The percentage can exceed 100%, as some of the patients received more than one advice

profile except that those with active suicidal ideations being older ($p = 0.032^*$). Similarly, when those with and without suicidal ideations in the recent past were compared, no significant difference was noted in the demographic profile. Similarly, when those with and without current death wishes were compared, no significant difference was reported in the demographic profile except for the fact that those with death wishes were older ($p = 0.006^{**}$).

3.2.2. Physical comorbidity, psychiatric diagnosis, and presence of caregivers at the time of assessment

When those with and without current active suicidal ideations were compared, no significant difference was noted for presence or absence of caregiver at the time of evaluation and physical comorbidity profile. In terms of diagnostic profile, all the patients with active suicidal ideations were diagnosed with mood disorders (i.e., either as primary or secondary diagnosis). When those with and without suicidal ideations in the last few weeks were compared, compared to those without suicidal ideations, a significantly higher proportion of those with suicidal ideations in the last few weeks had depressive disorders ($p < 0.001$), obsessive-compulsive disorder ($p = 0.001$), and personality disorder ($p = 0.012$). In comparison to those with suicidal ideations in the last few weeks, those without suicidal ideations had a significantly higher prevalence of family history of mental disorders ($p = 0.001$).

When those with and without current death wishes were compared, those with current death wishes also had a significantly higher prevalence of family history of mental disorders ($p = 0.004^{**}$) and comorbid diabetes mellitus ($p = 0.001^{***}$). Compared to those without death wishes, a lower proportion of those with death wishes had an organic disorder ($p = 0.03^*$), psychotic disorder ($p < 0.001^{***}$), anxiety disorder ($p < 0.001^{***}$), somatoform disorders ($p < 0.001^{***}$), and other psychiatric disorders ($p < 0.001^{***}$). However, compared to those without death wishes, a higher proportion of those with death wishes had depressive disorders ($p < 0.001^{***}$).

When those with and without the presence of caregivers at the time of assessment were compared, those evaluated with caregivers were significantly older ($p = 0.03^*$), had a longer duration of illness ($p < 0.001^{***}$), more often had comorbid diabetes mellitus ($p < 0.001^{***}$) and hypertension ($p = 0.02^*$), and head injury (0.008^{**}). In terms of psychiatric diagnosis, compared to those who contacted psychiatric services alone, those with caregivers more often had organic disorder ($p < 0.001^{***}$), psychotic disorder ($p < 0.001^{***}$), bipolar disorder ($p = 0.01^{**}$), and other psychiatric disorders ($p < 0.001^{***}$). However, compared to those with caregivers, a higher proportion of those without caregivers had an anxiety disorder ($p < 0.001^{***}$), adjustment disorders ($p = 0.03^*$), somatoform disorders ($p < 0.001$), and other psychiatric disorders ($p = 0.001^{***}$). No significant difference was noted for depressive disorders. When the suicidal behavior between those with and without caregivers was evaluated, no significant difference was noted between the two groups for any suicidal behavior, either in the lifetime or at presentation.

We followed up with all the patients considered as high risk after a

gap of at least six months. Out of the 18 patients, two patients could not be traced. All the 16 patients who could be contacted did not make any suicide attempts after contacting our services. Fourteen out of the 16 were asymptomatic at the time of follow-up, and two continued to be symptomatic. However, 6 out of the 16 had dropped out of our treatment and sought treatment from another mental health professional.

4. Discussion

During the ongoing pandemic some of the authors have raised concern about the increase in the rate of suicidal behaviour, whereas emerging data suggested to the contrary (Tandon, 2021b). The present study aimed to evaluate the prevalence of suicidal behaviour in new patients seen by the telepsychiatry services.

The present study evaluated 1065 new patients who were attended through telepsychiatry in a tertiary care center. The demographic and the diagnostic profile of the study participants are similar to that reported for patients attending the walk-in services before the pandemic at our setting (Grover et al., 2012).

In the present study, 14.4% of the patients reported death wishes at the time of assessment, only a tiny proportion of patients (2.4%) reported having thoughts about killing themselves in the past few weeks, 1.1% of the patients reported active suicidal ideations at the time of assessment, and 0.6% of patients had made a suicide attempt in the recent past. In terms of lifetime, 0.9% had a history of suicidal attempts. Overall, these findings suggest a low prevalence of suicidal behavior among new patients attending telepsychiatry services. These findings possibly indicate that mental health professionals should not be too apprehensive about suicidal behavior, and new patients can be provided telepsychiatry services. This can help to bridge the vast mental health gap in a country like India (Grover et al., 2020a).

As none of the previous studies has evaluated the prevalence of suicidal behavior in new patients coming to the telepsychiatry services, it is difficult to compare the present study's findings with the existing literature. Some of the studies have evaluated suicidal behavior in the general population. However, these studies have not distinguished between death wishes and suicidal ideations. This makes it difficult to compare the present study's findings with existing literature. A nationwide community survey from Taiwan, conducted using a computer-aided telephone interview system among persons aged ≥ 15 years, reported the weighted prevalence of suicidal ideation to be 2.84% in the past week, 5.5% in the past year, and 18.49% during a lifetime (Lee et al., 2010). Our findings of suicidal ideation at the time of assessment are comparable to this study. However, when we consider both death wishes and suicidal ideations, it can be said that the prevalence of suicidal ideations was significantly higher in our study sample compared to this nationwide study. A cross-national study conducted across 17 countries estimated the lifetime prevalence of suicidal ideation, plan, and attempt to be 9.2%, 3.1%, and 2.7%, respectively (Nock et al., 2008a; 2008b). When we compare our findings with this study, it can be said that the prevalence of current suicidal ideations (i.e., suicidal ideations and death wishes considered together) is higher in our study. The present sample's higher prevalence of suicidal ideations is understandable because mental disorders are an important risk factor for suicidal behavior (Nock et al., 2008a; 2008b; Harris and Barraclough, 1997).

In the present study sample, the current suicidal attempt was 0.6%, and that for a lifetime was 0.9%. When we compare our findings with available population-based data, which suggests prevalence of suicidal attempts is 5.1% in the past 12 months and ideation, planning, and/or attempts in 9.5% of the participants (Pengpid and Peltzer, 2021). Accordingly, it can be said that the present study's findings are significantly lower compared to this study. This difference could be attributed to the cultural factors, method of evaluation, and possibly smaller sample size in our study.

The studies which have compared suicidal risk evaluation via videoconferencing and face-to-face clinical assessment report that

videoconferencing, if not more, is equally efficient in doing so (Seidel and Kilgus, 2014; Godleski et al., 2008; Kryszyska and De Leo, 2007). Another review conducted to study Telemental health interventions reported these to be potent in the evaluation and prevention of suicide (Kryszyska and De Leo, 2007). In our study, too, we effectively explained the high-risk management to 1.8% of the participants in need. Out of those considered to be at high risk, 5 (0.5%) patients were given an appointment within 72 h, and 13 (1.3%) patients were advised to visit an emergency. With this strategy, we were able to avoid any future suicide attempts in our study sample. Although our study was not an effectiveness study, our study suggests that integrating the telepsychiatry services with the emergency services can help in managing patients with suicidal behavior presenting to the telepsychiatry services. Whenever a patient is found to have suicidal behaviour appropriate assessment will help to decide the need to institute high risk management with or without early work-up, or asking the patient to come to emergency. These can facilitate proper assessment and timely interventions. Once the patient is stabilized, the patient can again be managed through the telepsychiatry services. Integrating the telepsychiatry services and the emergency services can possibly reduce the anxiety of the clinicians while evaluating the patients in the telepsychiatry setting.

In terms of factors associated with suicidal behavior, the present study suggests that suicidal behavior is relatively higher among those with depressive disorders and among patients who are older. These findings align with the existing literature (Thompson et al., 2012; Vuorilehto et al., 2006; Statham et al., 1998).

The present study has certain limitations which should be kept in mind while interpreting the results. First, the study was limited to a tertiary care center. Hence, the present study's findings cannot be generalized to other settings. Second, the study sample can still be said to be relatively small. Third, we did not assess suicidal ideations by using any specific scale. Future studies must attempt to overcome these limitations by conducting multicentric studies, which would involve structured assessment of suicidal behavior. Lastly, our study was likely not devoid of the Rosenthal effect that is understood as the impact of conviction of the researchers about their own hypothesis and unconsciously influencing the outcome.

To conclude, the present study suggests that the overall prevalence of suicidal behavior is relatively tiny in new patients seeking psychiatric help through telepsychiatry services. Further, the present study indicates that patients with suicidal behavior can be triaged by giving early appointments for further detailed evaluation, instituting the high-risk behavior, and, if required calling the patients to the physical outpatient services or emergency services.

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Declaration of Competing Interest

None.

References

- Bachmann, S., 2018. Epidemiology of suicide and the psychiatric perspective. *Int. J. Environ. Res. Public Health* 15 (7), 1425.
- Basavarajappa, C., Grover, S., Dalal, P.K., Avasthi, A., Kumar, C., Manjunatha, N., Sahoo, S., Saha, G., Mehra, A., Singh, O., Tripathi, A., Gangadhar, B., Math, S., 2022. Perceived advantages and disadvantages of telepsychiatry – an online survey of psychiatrists in India. *Indian J. Psychiatry* 64 (1), 93.
- Belete, H., Misgan, E., Belete, T., 2021. Prevalence and associated factors of suicidal behavior among patients and residents in northwest ethiopia. *Front. Psychiatry* 12, 1566.
- Bifftu, B.B., Tiruneh, B.T., Dachew, B.A., Guracho, Y.D., 2021. Prevalence of suicidal ideation and attempted suicide in the general population of Ethiopia: a systematic review and meta-analysis. *Int. J. Ment. Health Syst.* 15 (1), 1–12.
- Board Of Governors, 2020. In supersession of the Medical Council of India Telemedicine Practice Guidelines Enabling Registered Medical Practitioners to Provide Healthcare Using Telemedicine. (2020), 2020.
- Busner, J., Targum, S.D., 2007. The clinical global impressions scale: applying a research tool in clinical practice. *Psychiatry (Edgmont)* 4 (7), 28.
- Chen, J.A., Chung, W.J., Young, S.K., Tuttle, M.C., Collins, M.B., Darghouth, S.L., Longley, R., Levy, R., Razafsha, M., Kerner, J.C., Wozniak, J., Huffman, J.C., 2020. COVID-19 and telepsychiatry: early outpatient experiences and implications for the future. *Gen. Hosp. Psychiatry* 66, 89–95.
- Godleski, L., Nieves, J.E., Darkins, A., Lehmann, L., 2008. VA telemental health: suicide assessment. *Behav. Sci. Law* 26 (3), 271–286.
- Grover, S., Kumar, V., Avasthi, A., Kulhara, P., 2012. An audit of first prescription of new patients attending a psychiatry walk-in-clinic in north India. *Indian J. Pharmacol.* 44 (3), 319.
- Grover, S., Chakrabarti, S., Sahoo, S., Mehra, A., 2020. Bridging the emergency psychiatry and telepsychiatry care: will COVID-19 lead to evolution of another model? *Asian J. Psychiatry* 53, 102429.
- Grover, S., Mehra, A., Sahoo, S., Avasthi, A., Tripathi, A., D'Souza, A., Saha, G., Jagadhisha, A., Gowda, M., Vaishnav, M., Singh, O., Dalal, P.K., Kumar, P., 2020. Impact of COVID-19 pandemic and lockdown on the state of mental health services in the private sector in India. *Indian J. Psychiatry* 62 (5), 488.
- Grover, S., Mehra, A., Sahoo, S., Avasthi, A., Tripathi, A., D'Souza, A., Saha, G., Jagadhisha, A., Gowda, M., Vaishnav, M., Singh, O., Dalal, P., Kumar, P., 2020. State of mental health services in various training centers in India during the lockdown and COVID-19 pandemic. *Indian J. Psychiatry* 62 (4), 363.
- Harris, E.C., Barraclough, B., 1997. Suicide as an outcome for mental disorders. a meta-analysis. *Br. J. Psychiatry* 170 (MAR.), 205–228.
- Jordans, M., Rathod, S., Fekadu, A., Medhin, G., Kigozi, F., Kohrt, B., Luitel, N., Petersen, I., Shidhaye, R., Ssebunnya, J., Patel, V., Lund, C., 2018. Suicidal ideation and behaviour among community and health care seeking populations in five low-and middle-income countries: a cross-sectional study. *Epidemiol. Psychiatr. Sci.* 27 (4), 393.
- Kryszyska, K.E., De Leo, D., 2007. Telecommunication and suicide prevention: hopes and challenges for the new century. *Omega* 55 (3), 237–253.
- Lee, J.I., Lee, M.B., Liao, S.C., Chang, C.M., Sung, S.C., Chiang, H.C., Tai, C.W., 2010. Prevalence of suicidal ideation and associated risk factors in the general population. *J. Formos. Med. Assoc.* 109 (2), 138–147.
- Nock, M.K., Borges, G., Bromet, E.J., Alonso, J., et al., 2008. Cross-national prevalence and risk factors for suicidal ideation, plans, and attempts. *Br. J. Psychiatry: J. Ment. Sci.* 192 (2), 98.
- Nock, M.K., Borges, G., Bromet, E.J., Cha, C.B., Kessler, R.C., Lee, S., 2008. Suicide and suicidal behavior. *Epidemiol. Rev.* 30 (1), 133.
- Pengpid, S., Peltzer, K., 2021. Prevalence and correlates of suicidal behavior among a national population-based sample of adults in kiribati. *Asia-Pac. Psychiatry* 13 (3).
- Seidel, R.W., Kilgus, M.D., 2014. Agreement between telepsychiatry assessment and face-to-face assessment for emergency department psychiatry patients. *J. Telemed. Telecare* 20 (2), 59–62.
- Statham, D.J., Heath, A.C., Madden, P.A.F., Bucholz, K.K., Bierut, L., Dinwiddie, S.H., Slutske, W.S., Dunne, M.P., Martin, N.G., 1998. Suicidal behaviour: an epidemiological and genetic study. *Psychol. Med.* 28 (4), 839–855.
- Tandon, R., 2021a. The bitter lessons of COVID-19: acknowledging and working through many points of tension. *Asian J. Psychiatry* 55, 102545, 2021 Jan.
- Tandon, R., 2021b. COVID-19 and suicide: Just the facts. key learnings and guidance for action. *Asian J. Psychiatry* 60, 102695.
- Thompson, A.H., Dewa, C.S., Phare, S., 2012. The suicidal process: age of onset and severity of suicidal behavior. *Soc. Psychiatry Psychiatr. Epidemiol.* 47 (8), 1263–1269.
- Vuorilehto, M.S., Melartin, T.K., Isometsä, E.T., 2006. Suicidal behaviour among primary-care patients with depressive disorders. *Psychol. Med.* 36 (2), 203–210.
- Zubrick, S.R., Hafekost, J., Johnson, S.E., Lawrence, D., Saw, S., Sawyer, M., Ainley, J., Buckingham, W.J., 2016. Suicidal behaviours: prevalence estimates from the second Australian child and adolescent survey of mental health and wellbeing. *Aust. N. Z. J. Psychiatry* 50 (9), 899–910.