Mental Healthcare Providers' Attitudes Towards Telepsychiatry: A Systemwide, Multisite Survey during the COVID-19 pandemic

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Short Title: Attitudes Towards Telepsychiatry

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Highlights/Bullet Points:

- COVID19 pandemic has resulted in an abrupt and massive transition to telepsychiatry, providing a unique opportunity for implementation research.

- 837 mental healthcare providers across the US, including psychiatrists, psychologists, nurses, nurse practitioners, social workers, counselors, peers, residents, and fellows completed an anonymous survey.

- Mental Healthcare providers show positive attitudes towards telepsychiatry, and the majority would like to keep using it in a significant portion of their caseload after the pandemic resolves.

Abstract

Objectives: The COVID-19 pandemic forced a rapid transition to telepsychiatry. The experience and current attitudes of mental healthcare providers towards telehealth should be examined.

Methods: 837 mental healthcare providers at 18 centers across the US completed an electronic survey.

Results: Experience using telepsychiatry was excellent or good in 73% of the cases using video, and 66% using telephone. Flexible scheduling/rescheduling (n= 633,77%) and timely start (n= 568,69%) were frequently reported advantages. Challenges were related to the patient's ability to use conferencing devices (n= 422,52%), lack of sense of closeness/connection (n= 379,46%), and technical problems (n= 323,39%). After the pandemic resolves, 64% of respondents would want to continue using telepsychiatry in at least 25% of their caseload.

Conclusions: Telepsychiatry is very well perceived among mental healthcare providers and many would like to keep using it in a significant portion of their caseload. Concerns about access to technology and training were raised.

Introduction

Telehealth, which refers to providing healthcare remotely, is not a new concept. As early as 1879, the use of the newly invented telephone was suggested to reduce unnecessary office visits (1). Since then, a substantial body of scientific literature supports the notion that reliability, effectiveness and outcomes of telehealth applied to psychiatry, also known as telepsychiatry, are overall comparable to in-person care

across multiple disorders, treatment modalities and patient populations, while also being cost-effective (2). Despite this, however, implementation of telepsychiatry had been limited and seemingly restricted to a subset of unevenly distributed clinics and clinicians, despite the fact that previous studies report generally positive clinician and patient attitudes (3).

This dissociation may have been driven partially by implementation or technical difficulties, organizational culture limitations and/or reimbursement problems (4). However, a selection bias is also likely (5), with younger, digital native or tech-savvy professionals tending to take part in telepsychiatry pilot programs and subsequent satisfaction surveys, whereas a larger population of clinicians who would have reported more barriers may remain underrepresented. Further, as we transition to a multidisciplinary care, the opinions/attitudes of other professionals beyond just physicians are important.

Due to the worldwide COVID-19 crisis, many healthcare systems around the world were forced to massively and rapidly transition all or almost all visits to telepsychiatry, which was accompanied by a significant regulatory relaxation (6).

This unprecedented scenario provided a unique opportunity to qualitatively assess the attitudes and opinions of mental healthcare professionals in a diverse array of clinical settings.

Materials and Methods

An anonymous survey was locally distributed to all clinicians from 19 hospitals and community centers in 11 different states in the US affiliated to the Vanguard Research Group (VRG), a research consortium specializing in behavioral health research. Psychiatrists, psychologists, nurses and nurse practitioners, social workers, therapists, mental health counselors, residents, and fellows were included. Surveys were distributed between the months of April and May of 2020 and could be completed electronically. This investigation was carried out in accordance with the Declaration of Helsinki (7). Study procedures were considered exempt by the local Institutional Review Board.

The survey included 12 questions about telepsychiatry satisfaction in its different modalities using a 5-point Likert scale, as well inquiries about potential challenges and positive experiences (Online Supplement). . Descriptive statistics were used to report qualitative survey results. Chi-Square tests were used to compare categorical variables. First, omnibus comparisons were conducted by age and professional category. If statistically significant differences were detected, we then tested the individual interactions of interest post-hoc. All analyses were conducted using JMP®, Version *13*, SAS Institute Inc., 1989-2019.

Results

The survey was distributed to approximately 2000 mental healthcare professionals, of which 837 completed the survey (response rate: 42%). 18 subjects disclosed not having used telemedicine and were therefore excluded. Hence, 819 surveys were included in the analysis.

Characteristics of the respondents are described in the Online Supplement. Briefly, age range was very diverse, with approximately 40% of the sample older than 45 years of age. Respondents work mostly in adult outpatient clinics (n=458, 56%) and child and adolescent clinics (n=148, 18%). Survey takers use mostly a combination of two-way video and telephone (n=500, 61%). Conversely, either telephone alone or video alone are used less frequently (n=273, 33% and n=45, 6% respectively).

The overall experience was either good or excellent for 73% when asked about two-way video conferencing, and 66% when asked about telephone only . Only 4% of the respondents declared their experience was "poor" or "very poor" in the case of video conferencing and 3% in the case of telephone (Online Supplement). We detected no differences in the overall experience among professional categories (χ^2=47, DF=44, p=0.351 for telephone and χ^2=41, DF=44, p=0.607 for video). We also found no differences by setting/program (χ^2=53, DF=40, p=0.077 for telephone and χ^2=35, DF=40, p=0.701 for video).

Some of the challenges healthcare providers reported in relation to telepsychiatry were related to the ability of the patient to properly use the conferencing devices (n=422, 52%), lack of sense of

closeness/connection (n=379, 46%), and technical problems (n=323, 39%)(Table 1). We detected no differences among professional categories (χ^2=143, DF=154, p=0.722). Conversely, reported challenges differed by age range of the healthcare providers (χ^2=112, DF=84, p=0.023), driven by a higher proportion of difficulties related to the use of technology/apps in both the 55-64 age group (χ^2=13, DF=1, p=<.001) and the 65-74 age group (χ^2=5, DF=1, p=0.022) compared to other age groups.

Healthcare providers reported flexible scheduling/rescheduling (n=633, 77%) as an advantage of telepsychiatry, followed by timely start (n=568, 69%) and lack/reduction of no-shows (n=427, 52%) (Table 1). In this case, reported advantages of telepsychiatry did not vary by age range (χ^2=52, DF=54, p=0.535) but by professional categories (χ^2=133, DF=99, p=0.013). Care coordinators/managers and residents/fellows reported lack/reduction of no shows less frequently than the rest of their peers (χ^2=10, DF=1 p=0.002 and χ^2=5, DF=1, p=0.031, respectively), and psychologists/therapists valued more frequently having access to the patient's environment, compared to other professionals (χ^2=6, DF=1, p=0.011).

Psychotic disorders were considered the least appropriate diagnosis to conduct telehealth (n=438, 67%), whereas anxiety disorders were considered the most adequate (n=683, 96%). Clinicians considered the future use of telehealth will be mostly determined by patients' preference/request (n=553, 69%) and severity of symptoms (n=500, 62%)(Online Supplement).

After the current pandemic resolves, 34% of respondents would want to continue using telepsychiatry in 50% or more of their caseload, and an additional 30% would like to keep using telepsychiatry in 25-50% of their caseload. Lastly, 36% of respondents would want to continue using telepsychiatry in <25% of their caseload.

In the free text comment section, clinicians generally found telepsychiatry to be useful and timesaving. Concerns were raised about technical difficulties and requests were made to provide specific, tailored support services for clinicians providing telepsychiatry and to facilitate clinicians' remote access and ability

to edit the patients' medical records thus smoothing the workflow, as well as to ensure proper reimbursement from payers. Further, mental healthcare professionals highlighted the fact that many patients do not have access to video platforms, having to conduct visits telephonically despite two-way video would have been preferred by both parties.

Discussion

In this study we report highly favorable attitudes towards telepsychiatry in its diverse forms, across a large and wide array of mental healthcare professionals. To our knowledge, this is the largest evaluation of mental healthcare providers' attitudes towards telepsychiatry to date, which is timely in the context of the current COVID-19 pandemic and the widespread stay-home and travel restriction orders, the duration of which is unclear. Further, most of the responders would like to continue using telepsychiatry after the current COVID-19 outbreak is resolved in a significant portion of their caseload.

In line with our results, previous studies also using qualitative self-report questionnaires and/or interviews show that psychiatrists reported overall positive attitudes about telepsychiatry (8–11). However, studies focusing on groups other than psychiatrists are less abundant. Some studies have focused on perceptions of primary care providers (12), emergency room physicians(13), and resident and medical students (14), but there is considerably less research on the attitudes of other mental healthcare professionals towards telemedicine or remote interventions. A recent review focused on technology-based interventions involving social workers showed overall positive attitudes towards the use of telepsychiatry, although this review only detected 5 studies, some of which reported the results of specific interventions, not all of which were conducted live or administered as part of regular clinical care (15).

Access to technology , proper training, and specialized technical assistance arose as potential barriers for the implementation of telepsychiatry and will need to be addressed by providers, payers and regulators. Technical problems may make engagement difficult, but also hamper the ability to detect subtle signs of

body language, nonverbal cues and/or even physical symptoms of disease, which has also been reported previously (3). Patients with sensory and/or cognitive limitations would potentially require deployment of additional technologies and/or human resources. With the currently available technology, allowing for encrypted, safe and private communications, videoconferencing should be preferred over telephone whenever possible. Our results and other surveys back this preference (10).

An important additional finding is that 64% of respondents would want to continue using telepsychiatry in at least 25% of their caseload after the COVID-19 pandemic resolves. This is relevant given the diversity and size of our sample, which is one of the strengths of this study. We maximized sample representativity by partnering with a large network of community, real world but also academic mental health centers distributed across the US. Given the abrupt and widespread transition to telepsychiatry due to the COVID-19 outbreak, including providers who had never used telepsychiatry before, we aimed to capture the attitudes of a larger, more representative population of providers, who may have been underrepresented in previous studies (5). In fact, nearly 40% of our sample was 45 years of age or older and the majority work in outpatient services. Hence, our findings should contribute to ease concerns about mainstream provider adoption and widespread use of telepsychiatry. Efforts should be made by all stakeholders involved to ensure that the current reimbursement flexibility related to the coronavirus pandemic remains in effect after the situation is normalized.

Some limitations need to be considered. First, our sample was not selected at random, and hence unwanted selection biases are possible, potentially hampering our efforts to represent the broader universe of mental health providers. Second, this being a survey study, nonresponse and response biases are possible. Longitudinal studies will be needed to assess whether this transition to telepsychiatry has had any impact on outcomes, including relapses or hospitalizations.

Whether the current travel restrictions and lockdowns will be lifted, or when, is unknown. Even when they are lifted, they may need to be reinstated again if a new infection peak arises. Thus, the current scenario of widespread telepsychiatry assessments may endure, providing a unique opportunity for its study. However, mental healthcare professionals' concerns need to be addressed, if telepsychiatry global implementation is to succeed.

Conclusion

Mental healthcare providers show a generally positive attitude towards telehealth and many would like to continue using it in a significant proportion of patients. Lack/reduction of no-shows and timely starts were commonly reported advantages. Concerns about proper access to technology and training need to be addressed.

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Table 1. Reported difficulties and advantages related to the use of telepsychiatry

	Number of responders who endorsed	Percentage of responders who endorsed
Difficulties and challenges of telepsychiatry		
Patient had difficulty using technology / apps	422	52
Provider does not feel as connected/comfortable as in person	379	46
Technical problems establishing/maintaining the connection	323	39
Concerns about missing relevant information (i.e.: a skin rash)	291	36
Lack of/diminished patient engagement	275	34
Clinic/hospital preferred because the setting is important	168	21
Confidentiality/Privacy concerns	133	16
Provider had difficulty using technology / apps	53	7
Total respondents	819	100
Positive elements of telepsychiatry		
Flexible scheduling/rescheduling	633	77
Timely start (no commute, intake delays)	568	69
Lack/reduction of no shows	427	52
Patient seemed more engaged/comfortable	332	41
Total respondents	819	100

Percentages of responders who endorsed are calculated in relation to the number of respondents. More than one area of concern or positive element could be selected. Responses are listed in the order of most frequently answered items.

Telepsychiatry Satisfaction Survey

The current crisis has resulted in our needing to use telehealth to continue providing treatment to our patients. We are interested in learning how you feel about this change and whether we should consider using this more in the future. Thank you for taking the time to respond to this survey.

1. Please identify the type of program for which you have provided services during the COVID-19 outbreak. (check all that apply)
- ☐ Adult Outpatient Clinic
- ☐ Adult Crisis Center
- ☐ Injection Clinic
- ☐ Geriatric Clinic
- ☐ Child and Adolescent Clinic
- ☐ Early Treatment Program
- ☐ Research
- ☐ Drug Use Treatment Program
- ☐ Partial Hospital
- ☐ Inpatient
- ☐ Other

2.Please identify your job title/role
- ○ Psychiatrist
- ○ Psychologist
- ○ Nurse
- ○ Nurse Practitioner
- ○ LMHC
- ○ Social Worker
- ○ Research Coordinator
- ○ Physician (other than psychiatrist)
- ○ Resident
- ○ Fellow
- ○ Other

3.Please select your age range
- ○ <25
- ○ 25-34

○ 35-44
○ 45-54
○ 55-64
○ 65-74
○ >74

4.Which telehealth modalities have you used during the recent shift to remote care? (check all that apply)
☐ Telephone (no real time video)
☐ Telehealth video platform-ZOOM
☐ Telehealth video platform-Amwell
☐ Other telehealth video platform
☐ Telephone (no real time video) sometimes, telehealth video platform other times.

5.How would you describe your experience using telephone only in providing care?
○ Excellent
○ Good
○ Fair
○ Poor
○ Very poor
○ N/A - I have not used telephone only

6.How would you describe your experience using telehealth real-time two-way video in providing care?
○ Excellent
○ Good
○ Fair
○ Poor
○ Very poor
○ N/A - I have not used telehealth two-way video

7.What were some of the challenges you experienced? (check all that apply)
☐ I do not feel as connected/comfortable as I do in person
☐ I do not feel that my patient is engaged
☐ I am concerned that I may miss relevant information (for example, a side effect of a treatment)
☐ I prefer the clinic/hospital, as the setting is important
☐ I am concerned about confidentiality
☐ I have had technical problems establishing/maintaining the connection
☐ I have difficulty using technology / apps
☐ Patient has difficulty using technology / apps
☐ Other
[   ]

8.What were some of the positive things you experienced? (check all that apply)

- [ ] Patient seemed more engaged/comfortable
- [ ] Flexible scheduling/rescheduling
- [ ] Timely start (no commute, intake delays)
- [ ] Lack/reduction of no shows
- [ ] Other

[   ]

9.Which diagnoses are most appropriate for telehealth treatment? (Check all that apply)
- [ ] Psychotic disorders
- [ ] Affective disorders
- [ ] Anxiety disorders
- [ ] OCD
- [ ] PTSD
- [ ] Personality Disorders
- [ ] ADHD
- [ ] Substance use - Alcohol
- [ ] Substance use - Cocaine
- [ ] Substance use - Opioids
- [ ] Substance use - Sedatives
- [ ] Substance use - Cannabis
- [ ] Other

[   ]

10.Which diagnoses are least appropriate for telehealth treatment? (Check all that apply)
- [ ] Psychotic disorders
- [ ] Affective disorders
- [ ] Anxiety disorders
- [ ] OCD
- [ ] PTSD
- [ ] Personality Disorders
- [ ] ADHD
- [ ] Substance use - Alcohol
- [ ] Substance use - Cocaine
- [ ] Substance use - Opioids
- [ ] Substance use - Sedatives
- [ ] Substance use - Cannabis
- [ ] Other

[   ]

11.After the current outbreak is over, I would like to continue using telehealth in:
- ( ) <25% of patients

○ 25-50% of patients
○ 50-75% of patients
○ >75% of patients

12.Future use of telehealth will be mostly determined by the following (check all that apply)
☐ Patient's age
☐ Patient's diagnosis
☐ Patient's severity of symptoms
☐ Patient's phase of treatment (new vs. known patient)
☐ Patient's goal/type of therapy (groups vs. individual, etc)
☐ Patient's location (suburbs, rural, long commute, etc)
☐ Patient's history of no-show for in person appointments
☐ Patient's preference/request
☐ My preference (flexible scheduling, etc)
☐ Other

13.Is there anything else you would like to tell us?

Thank you for completing the survey.

Table. Characteristics of the providers included in the survey

	Total	Percentage (%)
Age Range		
<25	22	3
25-34	254	31
35-44	216	27
45-54	137	17
55-64	129	16
65-74	48	6
>74	4	1
Total responders	810	100
Profession/Role		
Social Worker	247	31
Licensed Patient Counselor/Mental Health Counselor	106	13
Psychologist/Therapist	88	11
Care Coordinator/Case Manager	84	11
Psychiatrist	77	10
Recovery Coach/Peer Counselor	73	9
Nurse/NP	49	6
Physician (other than psychiatrist)	26	3
Administrative Personnel	20	3
Resident/Fellow	17	2
Research Coordinator	6	1
Other	10	1
Total responders	803	100
Area of professional activity		
Adult Outpatient Clinic	458	56
Child and Adolescent Clinic	148	18
Community Outreach	111	14
Drug Use Treatment Program	98	12
Adult Crisis Center/Partial Hospital	50	6
Early Treatment Program	31	4
Geriatric Clinic	23	3
Injection Clinic	13	2
Inpatient	11	1
Research	10	1
Other	16	2
Total responders	819	100

Table Percentages are calculated in relation to the number of respondents. More than one area of professional activity could be selected. Responses are listed in the order of most frequently answered items, except for age which is listed in chronological order.
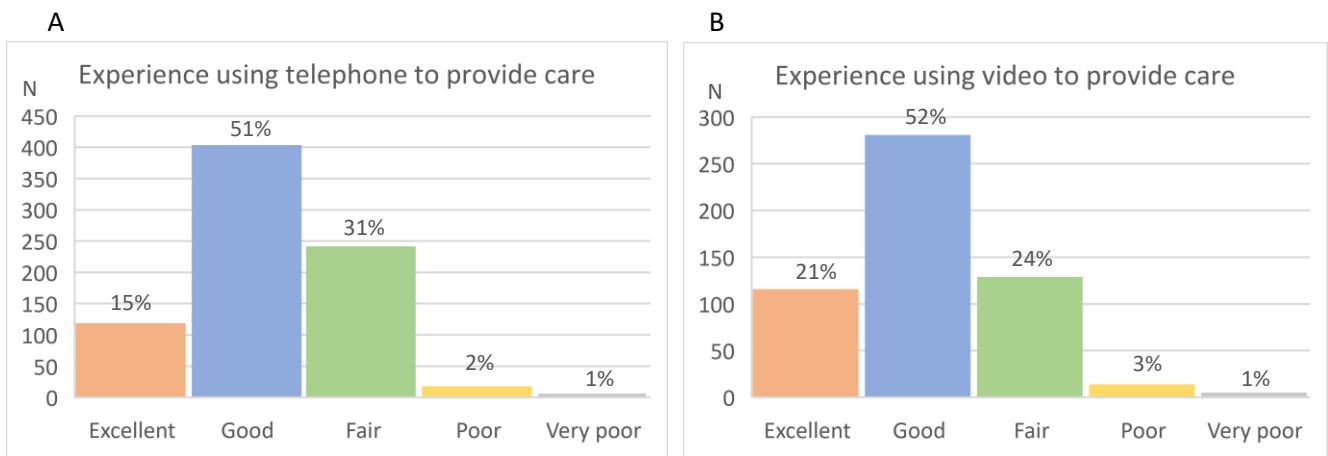
Figure.

A

B

Figure. A. Healthcare providers experience about providing mental healthcare via telephone rated on a 5-point Likert scale ranging from 0=Very Poor to 5= Excellent. B. Healthcare providers experience about providing mental healthcare via video conferencing rated on a 5-point Likert scale ranging from 0=Very Poor to 5= Excellent.

Table. Reported most appropriate and least appropriate diagnosis for the use of telepsychiatry

	Number of responders who endorsed	Percentage of responders who endorsed
Most appropriate diagnosis for the use of telepsychiatry		
Anxiety disorders	638	96
Mood disorders	421	63
Post-Traumatic Stress Disorder	375	56
Obsessive Compulsive Disorder	310	47
Personality disorders	287	43
Attention Deficit and Hyperactivity Disorder	265	40
Substance use - Alcohol	257	39
Substance use - Cannabis	250	38
Substance use - Cocaine/Stimulants	215	32
Substance use - Opioids	210	32
Substance use - Sedatives	194	29
Psychotic disorders	158	24
Other	8	1
Total respondents	667	100
Least appropriate diagnosis for the use of telepsychiatry		
Psychotic disorders	438	67
Substance use - Opioids	208	32
Substance use - Sedatives	191	29
Substance use - Cocaine	190	29
Personality Disorders	188	29
Substance use - Alcohol	187	29
Attention Deficit and Hyperactivity Disorder	156	24
Substance use - Cannabis	143	22
Post-Traumatic Stress Disorder	108	17
Mood disorders	86	13
Obsessive Compulsive Disorder	81	12
Anxiety disorders	38	6
Other	21	3
Total respondents	652	100

Table. Percentages of responders who endorsed are calculated in relation to the number of respondents. More than one diagnosis could be selected. Responses are listed in the order of most frequently answered items.

Table. Determinants of future use of telepsychiatry

	Number of responders who endorsed	Percentage of responders who endorsed
Determinants of future use of telepsychiatry		
Patient's preference/request	553	69
Patient's severity of symptoms	500	62
Patient's phase of treatment (new vs. known patient)	441	55
Patient's location (suburbs, rural, long commute, etc.)	432	54
Patient's history of no-show for in person appointments	408	51
Patient's diagnosis	344	43
My preference (flexible scheduling, etc.)	286	36
Patient's goal/type of therapy (groups vs. individual, etc.)	275	34
Patient's age	233	29
Total respondents	804	100

Table. Percentages of responders who endorsed are calculated in relation to the number of respondents. More than one determinant of use could be selected. Responses are listed in the order of most frequently answered items.