

Adapting an outpatient psychiatric clinic to telehealth during COVID-19: A practice perspective

Farzan Sasangohar, Major R Bradshaw, Marianne Millen Carlson, James N Flack, James C Fowler, Diana Freeland, John Head, Kate Marder, William Orme, Benjamin Weinstein, Jacob M Kolman, Bitu Kash, Alok Madan

Submitted to: Journal of Medical Internet Research
on: July 14, 2020

Disclaimer: © The authors. All rights reserved. This is a privileged document currently under peer-review/community review. Authors have provided JMIR Publications with an exclusive license to publish this preprint on its website for review purposes only. While the final peer-reviewed paper may be licensed under a CC BY license on publication, at this stage authors and publisher expressly prohibit redistribution of this draft paper other than for review purposes.

Table of Contents

Original Manuscript.....	5
---------------------------------	----------

Ahead Of Print
JMIR Publications

Adapting an outpatient psychiatric clinic to telehealth during COVID-19: A practice perspective

Farzan Sasangohar¹ BA, BCS, MASc, SM, PhD; Major R Bradshaw² BS, PhD; Marianne Millen Carlson² BS, MA, PsyD; James N Flack² BA, MD; James C Fowler² BA, PhD; Diana Freeland² BA, MA; John Head² BM, MM, MT-BC, NMT; Kate Marder² BA, MA; William Orme² BS, MA, PhD; Benjamin Weinstein² BS, MD; Jacob M Kolman¹ BA, MA; Bitu Kash¹ BS, MBA, PhD; Alok Madan² BA, MA, MPH, PhD

¹Center for Outcomes Research Houston Methodist Hospital Houston US

²Behavioral Health Clinic Houston Methodist Hospital Houston US

Corresponding Author:

Farzan Sasangohar BA, BCS, MASc, SM, PhD
Center for Outcomes Research
Houston Methodist Hospital
6565 Fannin St
Houston
US

Abstract

As the demand for telepsychiatry increases during COVID-19, articulating strengths and challenges of telepsychiatry implementation are needed to improve clinical practices long-term. Currently, observations within United States contexts are lacking; therefore, we report on the rapid implementation and workflow experiences as a psychiatric practice based within a large healthcare system in Southeast Texas with a national catchment area. We discuss implementation logistics including modes of communication, scheduling, coordination, and capacity; psychological effects of online services, including both the loss of the physical therapeutic environment as well as unique interpersonal dynamics experienced in the virtual environment; and post-adoption patterns of engagement in our services and other clinical functions affected by the rapid adaptation to telemedicine. Our art therapy group programming serves as an applied case study, demonstrating the value of a well-managed online program (e.g., patients were receptive, well-engaged, and appreciated the continuity of accessible service) as well as the challenges (e.g., the need for backup plans and technological fallbacks, managing interruptions and telecommunications learning curves, and working around the difference in resources for art and music therapy between a well-stocked clinical setting versus clients' home spaces). Overall, we conclude from our experience that overall strengths of telepsychiatry include surprisingly receptive and well-engaged response from patients, and the expansion of boundaries allowing for a directly contextualized view into patients' home lives. Challenges and corresponding recommendations include the need for more careful safety planning for high risk patients, maintaining professional boundaries in the newly informal virtual setting, designing the physical space both to frame the patient encounter and to maintain work-life balance for the therapist, allowing for delays and interruptions (including an initial acclimation session), and preserving interprofessional care team collaboration when the physical hallways normally facilitating such encounters are absent. We believe careful observations on strengths and challenges of telepsychiatry during this pandemic will better inform practices considering telepsychiatry adoption both within pandemic contexts and more broadly thereafter.

(JMIR Preprints 14/07/2020:22523)

DOI: <https://doi.org/10.2196/preprints.22523>

Preprint Settings

1) Would you like to publish your submitted manuscript as preprint?

✓ **Please make my preprint PDF available to anyone at any time (recommended).**

Please make my preprint PDF available only to logged-in users; I understand that my title and abstract will remain visible to all users.
Only make the preprint title and abstract visible.

No, I do not wish to publish my submitted manuscript as a preprint.

2) If accepted for publication in a JMIR journal, would you like the PDF to be visible to the public?

✓ **Yes, please make my accepted manuscript PDF available to anyone at any time (Recommended).**

Yes, but please make my accepted manuscript PDF available only to logged-in users; I understand that the title and abstract will remain visible to all users.
Yes, but only make the title and abstract visible (see Important note, above). I understand that if I later pay to participate in <http://www.jmir.org/preprint/22523>, the full manuscript will be available to all users.



Original Manuscript



Viewpoint

Adapting an outpatient psychiatric clinic to telehealth during COVID-19: A practice perspective.

Abstract

As the demand for telepsychiatry increases during COVID-19, articulating strengths and challenges of telepsychiatry implementation are needed to improve clinical practices long-term. Currently, observations within United States contexts are lacking; therefore, we report on the rapid implementation and workflow experiences as a psychiatric practice based within a large healthcare system in Southeast Texas with a national catchment area. We discuss implementation logistics including modes of communication, scheduling, coordination, and capacity; psychological effects of online services, including both the loss of the physical therapeutic environment as well as unique interpersonal dynamics experienced in the virtual environment; and post-adoption patterns of engagement in our services and other clinical functions affected by the rapid adaptation to telemedicine. Our art therapy group programming serves as an applied case study, demonstrating the value of a well-managed online program (e.g., patients were receptive, well-engaged, and appreciated the continuity of accessible service) as well as the challenges (e.g., the need for backup plans and technological fallbacks, managing interruptions and telecommunications learning curves, and working around the difference in resources for art and music therapy between a well-stocked clinical setting versus clients' home spaces). We conclude from our experience that overall strengths of telepsychiatry include receptive and well-engaged response from patients, and the expansion of boundaries allowing for a directly contextualized view into patients' home lives. Challenges and corresponding recommendations include the need for more careful safety planning for high risk patients; maintaining professional boundaries in the newly informal virtual setting; designing the physical space both to frame the patient encounter and to maintain work-life

balance for the therapist; allowing for delays and interruptions (including an initial acclimation session); and preserving interprofessional care team collaboration when the physical hallways normally facilitating such encounters are absent. We believe careful observations on strengths and challenges of telepsychiatry during this pandemic will better inform practices considering telepsychiatry adoption both within pandemic contexts and more broadly thereafter.

Keywords: Telemedicine; Psychiatry; Preventive Psychiatry; SARS Virus; Pandemics



Introduction

The spread of COVID-19 and wide scale self-quarantine and shelter-in-place orders have led many non-emergency practices to adopt telehealth solutions to continue serving their patients [1], and psychiatry is no exception. While some cases will still warrant inpatient psychiatric admissions, including coordinated care for psychiatric inpatients who test positive for COVID-19 [2], telepsychiatry is a viable option for handling outpatient scenarios. Best practices are already in place [3], and there is a supportive evidence base for telepsychiatry [4–6] particularly for online therapy for depression [7] and post-traumatic stress disorder [8]. However, such forced adoption and mass transition to telehealth has left significant challenges implementing telehealth for psychiatric services [9,10]. While there are guidelines for post-pandemic telepsychiatry [11,12], given the unique characteristics of this COVID-19 pandemic, lessons learned from such transitions, as well as implementation-specific guidelines, would be highly applicable to other practices. So far clinical implementations and lessons learned have been reported largely from settings outside the U.S. (and with largely positive results), i.e., China [13,14], Europe [15–23], Turkey [24], and Australia [10,25–28], with only some U.S. coverage (notably [9,29,30]). In this paper, we document our experience with telehealth adoption at a psychiatry practice embedded in a large health system in the U.S. and summarize several important successful improvisations and challenges to support broader and diverse adoption efforts.

Established in January 2018, the psychiatric outpatient clinic at Houston Methodist Hospital offers programs of care to meet gaps in the current mental health treatment continuum. The therapeutic outpatient assessment services span approximately 10 business days (2-4 hours / day), tailored to patients with complex and persistent psychiatric conditions – including depression, anxiety related disorders, trauma, psychosis, interpersonal dysfunction, chronic

pain, sleep disorders, emotional regulation problems, and suicidality. The team-based, multidisciplinary assessment is designed to optimize insight, produce maximal diagnostic clarity, and create a roadmap for future treatment.

The clinic offers access to mental health care through a 5+ week Functional Rehabilitation Program, including morning group therapies and individual sessions in the afternoons. The program occurs on an outpatient basis, allowing patients to complete treatment while remaining engaged with their lives. The approach to treating patients incorporates an understanding of broader contexts such as medical comorbidities and social determinants of health. The clinic also offers services to meet the varied and dynamic needs of our patients, including: intensive outpatient program, modified functional rehabilitation program, individual psychotherapy, couples counseling, psychotropic medication management, as well as art and music therapies.

In some ways, the clinic had a head start in COVID-19 compared to most other clinics, as it was already transitioning to digital platforms before the pandemic [31]. The system-wide support for innovative technologies at our health system had resulted in early adoption and significant investments in telehealth including secure and integrated technology to facilitate virtual visits embedded within our electronic health record (EHR), a virtual intensive care unit [32], and adoption of telemedicine postoperative follow-up [33]. We already vested and integrated a platform called CareSense (MedTrak, Inc.; Philadelphia, PA) for pre/post visit care coordination and patient-reported outcomes (see [31,34]). Hence, frequently cited sources of provider hesitation to adopt telemedicine, including workflow integration and infrastructure-related logistics [4,35–38], did not apply to our practice or overall culture. However, COVID-19 still required a rapid adoption of changes to go live before full testing.

Implementation and Experiences

On March 18, 2020, our outpatient clinic transitioned to a 100% telehealth platform, and continues with this same approach as of this writing. Our complete transition and continued use of telehealth technologies contrasts with many other outpatient practices, where clinics have followed suit with local businesses and have opened for at least some in-person treatment. We have chosen a more conservative approach to ongoing use of telehealth technologies for many reasons. Hospital-wide policies require face masks and six feet of social distancing for all outpatient visits for both patients and providers. These safety requirements reduce the risk of COVID-19 transmission but come at a significant cost to the daily practice of outpatient psychiatric care. Our assessments and interventions rely heavily on non-verbal and verbal communication. Masks cover well over half of patients' faces, limiting providers' assessment of patient affect. Additionally, masks muffle voices. This facet of mask-wearing has the potential to negatively affect content of verbal output and subsequently comprehension – for patients and providers alike. Verbal communication from at least six feet apart only worsens the potential negative consequences of muffled voices.

Diversifying modes of communication: One size does not fit all

Our practice found it essential to leverage multiple platforms and modalities (e.g., Cisco Webex, Microsoft Teams, email, phone calls, EHR, patient portal communications, etc.) to facilitate the initial transition. While such an inclusive strategy may increase the logistical complexity of care for the providers, our clients found the backup options and redundant systems essential. For instance, one client became anxious and frustrated by initial difficulties downloading Webex, so we pivoted and settled into using FaceTime, which did not require an additional tool and was familiar. Another client, who was feeling lonely and disconnected but struggled to find time for sessions because of childcare demands, was able to feel connected by occasionally texting her therapist. The texts included YouTube links to humorous videos on shared pandemic struggles. In addition to serving a wide range of client preferences, such flexibility was key to help us

maintain the availability of service even when one modality lagged or became unresponsive. In addition, having different levels of fidelity on hand (e.g., from high-fi Webex to low-tech phone calls) created a scaffold for backup options and platforms that can be used in tandem. Of course, a list of both COVID-provisional approved applications and more generally HIPAA-compliant technology should be consulted to ensure digital security and privacy [39].

Conversely, diversifying modes of communication also carries efficiency costs (both within the care team and in team-client interactions). These include logging in to platforms and waiting for others to do the same; pausing for deliberate transition between speakers; and reporting the same information in different forms and in multiple places (e.g., rapid switches between sessions on MS Teams and formal documentation of the same in the EHR).

Special logistical concerns

Hand-off procedures in particular were transformed. The gap between sessions used for quick hand-offs means moving without a break from meeting to meeting and then ending the day with more in-depth documentation. We experienced an increased need for communication between team members; casual hallway or “water-cooler” hand-offs frequently occur in physical clinic settings but not when the care team shifted to telecommuting. Some team members adapted to the loss of this natural and implicit means of coordination by more explicit efforts while others went “silent.” We learned that staff should consciously expect and prepare for these easily underestimated differences in communication dynamics.

Management of schedules and appointment times is also more stressful and demanding, as tardiness or absence from appointments became ambiguous. An office no-show could mean many things but is always, at least, absence. Online absence could result from an otherwise ready client experiencing technical difficulties, a broken or misdirected link, or an adjacent appointment, or other no-show reasons such as forgetfulness or distractions from other turmoil (quarantine-related or otherwise). In addition, team members and clients’ “free time”

have been transformed, limited or expanded, and distributed differently due to lockdown. Factors such as childcare, other caregiver needs, or presence/absence of other adults in the home are now factors affecting schedules.

Lastly, we experienced variable capacity for team members and clients to make, and subsequently adapt, their communication behaviors to the virtual leap. Technological comfort and literacy / fluency also played a part. When finally online, users experienced differences in the conversational flow in an online environment and had to adjust the interviewing style, e.g., to avoid talking over the patient. Video exists in a liminal space between in-person interaction and non-visual interaction. When face-to-face, interlocutors experience familiar non-verbal cues to signal when a speaker is finished or when a listener is still attentive or becoming unsettled, which informs the turn-order of speaking as needed; in radio communications, there is a clear expectation that these cues will be absent (hence conventions like saying “over” to replace them). Online video lacks the fidelity to retain the cues but “teases” users with at least some visual context, so we may not properly reset our expectations (nods are missed in choppy video feeds; pitch cues may be missed in the audio transmission; eye contact is disrupted by the offset camera eye, etc.). Delays in communication as speakers stumble over turn order affect the session’s length and efficiency, and require more time to build rapport and trust with new patients.

Psychological effects of online audio-visual chat

Our clinic emphasizes differentiation through “time and team” to produce a therapeutic effect. With telehealth, we need to be more mindful of the “time” aspect, which as noted above has been transformed. Online chat fatigue (also referred to as Zoom fatigue during the pandemic) of patients and team members has at times motivated us to limit the duration and frequency of sessions in order to spread out the mental effort required. Patients still receive the time that our clinic promises, but may need to be more flexible with the duration of our programs. As a

“team” we do not have as much time to talk about patients together because we are confined to team meetings and strict cut offs/schedules before the next Webex meeting begins. We also miss the consultations between staff when not in person (for social and not purely logistical benefits). For both our clients and healthcare workers, a well-established period of reflective *time* can be as therapeutic and rejuvenating as any sacred or holy *space* [40], and so the fragmentation of that time, sometimes into asynchronous processes like emails, is felt. We have utilized other technology formats and call/text providers as needed to communicate. The needed information is communicated, but quick consultations and detailed information is lost. Time and space coalesce to form a therapeutic environment for mental health. Space is now virtual, taking place in the patient’s home or home office in a manner contiguous with the rest of that person’s day. This can lose the effect of relocating to a separate and unique space, i.e., the psychiatrist’s office. In this new space, team members and clients have needed to work harder to generate and sustain interpersonal connection. Social signals and efforts need to be amplified to overcome the loss of intimacy and belonging derived from physical proximity. This is difficult when new relationships begin in the virtual environment, in contrast to existing clients for whom rapport was already established before the transition to virtual. Conversely, video chat garners some closeness because of the virtual invitation into normally private spaces (the therapist’s and client’s home office/kitchen table). Viewers obtain unintended but inevitable glimpses into each other’s home life (children, pets, spouses roaming the visual or audio background) [41] and even dress tends to be less formal.

Services and service lines under telehealth

We carefully scrutinized which services can transition and which cannot without an unacceptable loss of integrity. Individual therapy is an easy and established service for telehealth [5,7]; group therapy has been well-received by providers and clients alike, perhaps because the program is small; art and music therapy programs had precedent but were

uncertain and required exploratory efforts to establish workability (as in our case study below); neuropsychological services had to be limited to simple screening. These choices were determined by individual workplaces but should not arise in a vacuum.

Some programs may thrive more during quarantine than they otherwise would, via telemedicine or otherwise. Namely, we suspect people are happy to connect in group programming now because they are not seeing anyone else due to quarantine. Although there are still some technological challenges, patients are glad to have a social space. Once clients re-engage with their normal social supports and are not quarantined, participation in group sessions may go down.

Specific functions of our psychiatric practice have also transformed. Some psychological testing can now be completed through vendor-supplied online portals. Other tests require a physical presence (e.g., medical tests, genetic testing, and MRIs) and therefore present a challenge. These tests take longer to order and to receive results. We no longer have the luxury of ordering and coordinating care within our system. We have to rely on external facilities, and relevant information is not always readily available in our EHR. Releases of information and other paper forms need to be completed by hand, scanned by patients, and then emailed to us. Fillable forms (e.g., smart PDFs) are more efficient and easier for patients to account for lack of access to technology or suitable home office supplies.

Case Study – Art/Music Therapy Group

Art and music therapies are integral components of our uniquely structured Functional Rehabilitation Program; all patients participate in these forms of therapy in both individual and group settings. While more common forms of psychotherapy are also features of the core clinical programming (e.g., acceptance and commitment therapy, dialectical behavioral therapy skills training, process-oriented group therapy), we chose to highlight art and music therapy

because of the additional logistical challenges these therapies required in transitioning from in-person to a telehealth platform – namely the need for therapy-specific equipment such as painting supplies and musical instruments.

The first tele-art therapy group was held by phone rather than video due to technical difficulties. While it was difficult to do an art therapy group without being able to see anything, the planned session included a writing prompt, and patients were able to share what they had written along with a description of what they had started to create (demonstrating the *importance of backup plans and backup technologies* noted above). The timing was a challenge as well because it took so long to get started with the technical issues, but patients were open to continuing to work on the art pieces on their own and brought them to the next session (*anticipating in-session time spent on technology; managing interruptions*). By the second session, the video worked and patients were able to show their images. The idea of using the group as a time to start a piece and then to continue to work on it during the week or to do additional images has been well received with mixed participation (*patients as receptive and well-engaged*). Availability of art materials is another challenge; some people have plentiful supplies at homes, while others are more limited. Ordering items to get sent out now face delays in shipping for many items and low stock due to the increase in the quarantined/shelter-in-place population ordering art supplies (*setting the in-home therapeutic space*).

Our providers observed that patients seemed grateful to have the groups as a way to create structure in their days and to connect with others. Pre-existing rapport noticeably helped in this case: while there are similar online offerings, there is a sense of community for existing patients that they would not find by selecting a different offering, such as an online support group or art class. At the same time, our staff served as an anchor that might allow them to reach out to other supports and engage in more opportunities during this time than they might normally do because they know they can check in with us about the other things they are

trying.

Despite positive outcomes, the applied and physical nature of art and music therapy poses unique challenges, largely revolving around the resources necessary for traditional session plans. The therapist and patient do not have equal and shared access to instruments. If a patient wants to use music education in their therapy, such as learning guitar skills, they do not have access to the music therapist's instruments to do so. Time lags in internet video conferencing also make joint music-making difficult. This removes real time improvisation and some re-creative approaches from the therapist's repertoire until technological adjustments or advancements are made, e.g., music-making interventions such as group drumming are removed from the music therapist's toolbox.

In this type of therapy, there is also an increased burden on the patient to learn technological skills to participate by telemedicine. Even though the therapist may have the resources to provide high quality video/audio, that quality can be lost through the patients' technological resources. Higher quality technology resources are needed to ensure quality experiences than in conversation-based interventions (which, as we've seen, can default to mechanisms as simple as the telephone). USB microphones and high-speed home Internet are not ubiquitous even among fairly privileged patients, raising additional concerns for potentially exacerbating disparities for the less well-off and their care access for telemedicine programs of this nature. For those patients who can achieve the necessary resources, technical literacy may still present a barrier, and so the therapist serves a dual role as the patient's IT support in troubleshooting not only for the teleconferencing method in general but also for the audiovisual equipment required.

Although not ideal for re-creative or improvisational models, the Internet and its associated technologies are rich in opportunities for receptive and compositional methods of music therapy. Most tech platforms (free but again assuming Internet bandwidth) allow for screen

sharing and high-quality video for receptive music therapy interventions. This includes screen sharing for collaboration on lyrics, or looking up chords charts online. These online techniques take time to learn, so the therapist should budget extra time accordingly for self- and patient-orientation. It is important for the therapist to test their new tech skills before entering sessions. The therapist should practice their new skills with a fellow therapist or family member to practice. There are existing, easy-to-learn, free software programs for music production and composition, such as GarageBand or Audacity. Granted, “easy to learn” is relative to the more complex software available, as well as the patient’s or therapist’s baseline technological skills, though learning and improving one’s self-efficacy can come with its own benefits and rewards as well.

Summary of Strengths, Challenges and Recommendations

Our clinical team identified several positive strengths as well as key challenges moving forward with our rapidly implemented telemedicine program, which may be instructive both to other psychiatric practices thinking of adopting telemedicine as well as those seeking to improve currently implemented programs.

Strengths:

- **Patients are receptive and well-engaged.** 100% of pre-pandemic, established patients continued to engage in some degree of programming when we transitioned from an in-person to a telehealth platform. We were mindful of individual differences in how much programming and on what platform patients were willing to transition. Patients and providers engaged in a shared decision-making process, and we tailored our programming and mode of service delivery based on patient preferences. Post-pandemic patients across the board chose reduced intensity of treatment from the beginning of their treatment with us. Overall, most patients seemed relieved that in the midst of the pandemic, therapeutic structures and support are still

accessible. Rapport is enhanced by a sense that both providers and patients are going through a crisis together – this humanizes the providers to the patients while also giving providers a chance to model intentional coping, balanced responses to the crisis (most of the times), and active anxiety regulation, in real-time. Our experience is corroborated by other U.S. sites which implemented telemedicine rapidly [9], as well as generally positive reviews showing patient satisfaction with telepsychiatry [5,6].

- **Virtual groups have been well-attended and engagement in some respects has increased.** The relative isolation that group members feel has spurred them out of their comfort zones to engage more actively, leaning on their peers more. For some, especially those with more avoidance and social anxiety, circumstances are giving them, out of necessity, a new experience of their peers as a positive source of support.

- **Telepsychiatry expands the boundaries of psychological intervention into real-life.** By necessity, telehealth visits take providers out of the one-on-one environment of traditional brick-and-mortar practice and into the lives, living rooms, and backyards of patients' everyday lives. In one session, we were actually able to see one patient relate with her son in real-time instead of just talking about it and interpreting the interaction as filtered through her perception. Such direct and contextualized interaction increases the ecological validity/relevance of therapy and opens opportunities for more flexible service delivery models in future practice, ones that are more effective and helpful for patients and less restrained by antiquated red tape.

Challenges and Recommendations:

- **High risk patients** require more active safety planning, case management, and tolerance of anxiety and uncertainty related to unknowns due to lack of in-person visits. For our established, chronically suicidal patients, we had emergency contact details readily available prior to scheduled sessions, the ability and willingness to engage emergency medical

services if necessary, and direct access to our inpatient psychiatric unit should the need arise. Fortunately, we did not have to mobilize any of these contingencies for pre-pandemic, established patients. However, for patients admitted into our practice after we transitioned to an exclusively virtual platform, risk management created significant logistical challenges. We did facilitate inpatient psychiatric admissions with significant assistance from family, who had to bring their loved one to the hospital Emergency Department, were not allowed to accompany them, and had to communicate with the inpatient care team almost exclusively by phone. Additionally, we supplemented our outpatient programming with home health aides out of medical necessity. Management of risk in a virtual setting requires considerably more time, effort, and creative problem-solving than in-person clinical care [20]. To date, we have managed risk without adverse event. This is an area where further research in the process, patient and provider experience, and outcomes are all warranted.

- **Establish a provider culture of telemedicine adoption.** One observed strength was not of our telemedicine program *per se*, but of provider willingness to adopt telemedicine as a solution; 100% of providers transitioned to telemedicine platforms with varying degrees of fluency and need for ongoing logistical support. Studies have reported provider hesitation to adopt telemedicine based in concerns about workload [35]; usability [36,37]; EHR and systems integration [37]; other logistics related to time and staff [38]; and incentives, reimbursements, and regulations[36,37], especially in the case of telepsychiatry, which deserves special consideration when COVID-based federal policy changes and leniencies expire [4,42]. Hence the success of telemedicine adoption is greatly facilitated by investing in the cultural, logistical, and infrastructural factors to enable success (see also Kalin et al.,[29] who likewise credit their successful COVID-related telepsychiatry adoption to organizational culture and prior technological readiness). Having said that, from-scratch implementation is also possible, as in the case reported by Yellowlees et al. [9], who impressively planned out a complete in-person

to telepsychiatry adoption program in one day, and had fully implemented it on all patients within three working days. Other attempts were more encumbered by technical and training difficulties but found, as we did, that use of multiple platforms had a mitigating effect [30].

- **Set the therapeutic frame with intentionality to manage risks.** The transition to a virtual frame risks blurring normal therapeutic boundaries by making the encounter informal. There is a need to demarcate, for instance, a telephone therapy appointment from a phone call with a friend or a fellow citizen in the midst of a pandemic. In an office, the frame is set through physical elements, including the office, furniture, waiting room, etc. In virtual space, this frame must be instituted verbally, though not rigidly, through maintaining intentionality about how the conversation relates to the patient's overall goals. Mindfulness and management of the professional practitioner-patient relationship remains as important as ever. It is also worth noting that most web platforms allow for anonymous phone calls or web-calling based in an online profile, which allows the therapist to avoid disclosing their own personal accounts or phone number when checking in with the patient.

- **Setting the physical and visual backdrop requires forethought and design.** Setting the frame requires more than verbal and behavioral monitoring. Although it can be humanizing for the patient to see the therapist in their natural habitat, it may be necessary to hide eyesores in the therapist's home. A foldable standing blind can be useful for hiding the laundry baskets, bed, and kitchen counter. The blind also provides a consistent, professional, and aesthetically pleasing therapeutic environment. Lighting is also a consideration; for webcasting, it is better to be lit from the front than from the back. To avoid additional glare from the ceiling fan, prop up the laptop or camera so that the ceiling fan is not in view.

- **Maintain work-life balance by separation of space and time.** The blind and other physical rearrangements needed for the therapeutic space can also benefit the therapist as a transitory demarcation of work versus home spaces. Home is a refuge from work, and working

from home blurs the role of the home and work environments. Using the blind to 'set up' the office changes the environment from home to work, and vice versa at the end of the day. This transition helps to 'give back' the space to the therapist and acts as an affordance to return to normal use of the space. If the therapist's floor plan allows for a permanent home office space, this can also demarcate a work-zone from a home-zone, but the lack of physical actions and motions for setup/breakdown in this case should be replaced by disciplined scheduling to signal work time and free time in some other way. It is also worth noting that healthcare workers, including psychiatrists and mental health workers, can also benefit from receiving telepsychiatry as well [24].

- **Introduce the client to the virtual space; expect to take up initial session time.**

When beginning initial sessions, it is important to allow time for orientation to the technology [9]. In the same way a new patient may need help to find their way into the building and park their car, they need our help to orient to the technology. It is important that the therapist take a 'walking with' stance with the patient, and express that the therapist and the patient are 'in this together'. Allowing time for technology, and normalizing it as part of the orientation to therapy can help assuage a new patient's anxiety about their first day. Set aside a generous 10 or 15 minutes simply to help them with their technology. This also has the effect of building trust between the patient and the therapist. Provider-guided orientation may thus be uniquely warranted in telepsychiatry, in contrast to other forms of telemedicine in which the provider and patient may both prefer to save time by utilizing pre-session tutorials or medical assistant-led guidance to the technology instead.

- **Interruptions may disrupt session plans and will need to be managed.** Potential interruptions naturally arise as the patient's family or pets enter the picture, particularly if home childcare is an issue for either the patient or the therapist. Such interruptions are inevitable and need to be managed. In group sessions this might result in patients to miss key

discussions. Interruption recovery techniques such as video replay (if sessions are recorded) or history logs (if time-stamped real-time notes are taken) [43]. The privacy issues can be mitigated through sound localization. Headphones are fairly essential, as they prevent a family member from hearing confidential session details, or a therapy group member's comment. Headphones also signal to others that the patient is absorbed in a task. For any planned meditative or focused exercise, e.g., guided imagery or progressive muscle relaxation, it is important to let patients know this ahead of time so that they can take steps to help their family understand that they cannot be disturbed (as well as establishing a backup plan in case of Internet connectivity disruptions). Therapists and patients alike can also look into any affordable or employer-provided childcare options they feel safe with during a pandemic to mitigate childcare-related interruptions consistent with their household's social distancing plan.

- **Shelter-in-place restrictions challenge active interprofessional collaboration.** The clinical isolation highlights the value of in-person informal consultation and co-location of a multidisciplinary team, both to preserve benefits to the patient deriving from such team support [20,24], and also for the morale of the team itself. The short exchanges in the hall, dropping by a colleague's office for a minute, or eating lunch together, serve to keep providers apprised of shared clinical work. Without these channels, more active time and participation must occur. We have implemented additional scheduled meetings for consultation to account for the loss of informal consultation.

Circumstances of the COVID-19 pandemic have raised unprecedented challenges taxing the physical and mental health of the populace, but unprecedented also is this opportunity to learn, teach, innovate, and evaluate telepsychiatry strategies as necessity has spurred its adoption.

Conflicts of Interest

None declared.

Abbreviations

EHR: Electronic health record

References

1. Ohannessian R, Duong TA, Odone A. Global telemedicine implementation and integration within health systems to fight the COVID-19 pandemic: a call to action. *JMIR Public Health Surveill* 2020 02;6(2):e18810. PMID:32238336
2. Percudani M, Corradin M, Moreno M, Indelicato A, Vita A. Mental health services in Lombardy during COVID-19 outbreak. *Psychiatry Res* 2020;288:112980. PMID:32315881
3. American Psychiatric Association, American Telemedicine Association. Best practices in videoconferencing-based telemental health [Internet]. American Psychiatric Association; 2018. Available from: <https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/Telepsychiatry/APA-ATA-Best-Practices-in-Videoconferencing-Based-Telemental-Health.pdf>
4. Chen JA, Chung W-J, Young SK, Tuttle MC, Collins MB, Darghouth SL, Longley R, Levy R, Razafsha M, Kerner JC, Wozniak J, Huffman JC. COVID-19 and telepsychiatry: Early outpatient experiences and implications for the future. *Gen Hosp Psychiatry* 2020 Jul 9;66:89–95. PMID:32750604
5. Hubley S, Lynch SB, Schneck C, Thomas M, Shore J. Review of key telepsychiatry outcomes. *World J Psychiatry* 2016 Jun 22;6(2):269–282. PMID:27354970
6. Chakrabarti S. Usefulness of telepsychiatry: A critical evaluation of videoconferencing-based approaches. *World J Psychiatry* 2015 Sep 22;5(3):286–304. PMID:26425443
7. Wright JH, Caudill R. Remote treatment delivery in response to the COVID-19 pandemic. *Psychother Psychosom* 2020;89(3):130–132. PMID:32213775
8. Acierno R, Gros DF, Ruggiero KJ, Hernandez-Tejada BMA, Knapp RG, Lejuez CW, Muzzy W, Frueh CB, Egede LE, Tuerk PW. Behavioral activation and therapeutic exposure for posttraumatic stress disorder: a noninferiority trial of treatment delivered in person versus home-based telehealth. *Depress Anxiety* 2016;33(5):415–423. PMID:26864655
9. Yellowlees P, Nakagawa K, Pakyurek M, Hanson A, Elder J, Kales HC. Rapid conversion of an outpatient psychiatric clinic to a 100% virtual telepsychiatry clinic in response to COVID-19. *Psychiatr Serv* 2020 01;71(7):749–752. PMID:32460683
10. Zulfic Z, Liu D, Lloyd C, Rowan J, Schubert KO. Is telepsychiatry care a realistic option for community mental health services during the COVID-19 pandemic? *Aust N Z J Psychiatry* 2020 Jun 22;4867420937788. PMID:32571079
11. Augusterfer EF, Mollica RF, Lavelle J. A review of telemental health in international and post-disaster settings. *Int Rev Psychiatry* 2015;27(6):540–546. PMID:26576720
12. Smith K, Ostinelli E, Macdonald O, Cipriani A. COVID-19 and telepsychiatry: an evidence-based guidance for clinicians. *JMIR Ment Health* 2020 Jul 10; PMID:32658857

13. Liu S, Yang L, Zhang C, Xiang Y-T, Liu Z, Hu S, Zhang B. Online mental health services in China during the COVID-19 outbreak. *Lancet Psychiatry* 2020;7(4):e17–e18. PMID:32085841
14. Zhou J, Liu L, Xue P, Yang X, Tang X. Mental health response to the COVID-19 outbreak in China. *Am J Psychiatry* 2020 01;177(7):574–575. PMID:32375540
15. Corruble E. A viewpoint from paris on the COVID-19 pandemic: a necessary turn to telepsychiatry. *J Clin Psychiatry* 2020 31;81(3). PMID:32237302
16. Ćosić K, Popović S, Šarlija M, Kesedžić I. Impact of human disasters and COVID-19 pandemic on mental health: potential of digital psychiatry. *Psychiatr Danub* 2020;32(1):25–31. PMID:32303026
17. Fagiolini A, Cuomo A, Frank E. COVID-19 diary from a psychiatry department in Italy. *J Clin Psychiatry* 2020 31;81(3). PMID:32237301
18. Prisco V, Prisco L, Donnarumma B. [Telepsychiatry in adults and adolescents: a useful tool against CoViD-19.]. *Recenti Prog Med* 2020 Aug;111(7):411–414. PMID:32658880
19. Schuh Teixeira AL, Spadini AV, Pereira-Sanchez V, Ojeahere MI, Morimoto K, Chang A, de Filippis R, Soler-Vidal J. The urge to implement and expand telepsychiatry during the COVID-19 crisis: Early career psychiatrists' perspective. *Rev Psiquiatr Salud Ment* 2020 Sep;13(3):174–175. PMID:32653319
20. O'Brien M, McNicholas F. The use of telepsychiatry during COVID-19 and beyond. *Ir J Psychol Med* 2020 May 21;1–6. PMID:32434596
21. Olwill C, Mc Nally D, Douglas L. Psychiatrist experience of remote consultations by telephone in an outpatient psychiatric department during the COVID-19 pandemic. *Ir J Psychol Med* 2020 May 22;1–8. PMID:32438945
22. Haxhihamza K, Arsova S, Bajraktarov S, Kalpak G, Stefanovski B, Novotni A, Milutinovic M. Patient Satisfaction with Use of Telemedicine in University Clinic of Psychiatry: Skopje, North Macedonia During COVID-19 Pandemic. *Telemed J E Health* 2020 Aug 17; PMID:32809916
23. Usman M, Fahy S. Coping with the COVID-19 crisis: an overview of service adaptation and challenges encountered by a rural Psychiatry of Later Life (POLL) team. *Ir J Psychol Med* 2020 Jul 2;1–5. PMID:32611473
24. Dursun OB, Turan B, Pakyürek M, Tekin A. Integrating telepsychiatric services into the conventional systems for psychiatric support to health care workers and their children during COVID-19 pandemics: results from a national experience. *Telemed J E Health* 2020 Aug 18; PMID:32821025
25. Zhou X, Snoswell CL, Harding LE, Bambling M, Edirippulige S, Bai X, Smith AC. The role of telehealth in reducing the mental health burden from COVID-19. *Telemed J E Health* 2020;26(4):377–379. PMID:32202977
26. Looi JC, Pring W. Private metropolitan telepsychiatry in Australia during Covid-19: current

- practice and future developments. *Australas Psychiatry* 2020 Jun 2;1039856220930675. PMID:32484737
27. Reay RE, Looi JC, Keightley P. Telehealth mental health services during COVID-19: summary of evidence and clinical practice. *Australas Psychiatry* 2020 Jul 28;1039856220943032. PMID:32722963
 28. Kavoor AR, Chakravarthy K, John T. Remote consultations in the era of COVID-19 pandemic: Preliminary experience in a regional Australian public acute mental health care setting. *Asian J Psychiatr* 2020 Jun;51:102074. PMID:32294583
 29. Kalin ML, Garlow SJ, Thertus K, Peterson MJ. Rapid implementation of telehealth in hospital psychiatry in response to COVID-19. *Am J Psychiatry* 2020 01;177(7):636–637. PMID:32605442
 30. Sharma A, Sasser T, Schoenfelder Gonzalez E, Vander Stoep A, Myers K. Implementation of home-based telemental health in a large child psychiatry department during the COVID-19 crisis. *J Child Adolesc Psychopharmacol* 2020 Jul 8; PMID:32639849
 31. Fowler JC, Madan A, Frueh BC, Bradshaw M, Flack J, Weinstein B. Lessons learned while integrating patient-reported outcomes in a psychiatric hospital. *Psychotherapy (Chic)* 2019;56(1):91–99. PMID:30431293
 32. Sasangohar F, Jones SL, Masud FN, Vahidy FS, Kash BA. Provider burnout and fatigue during the COVID-19 pandemic: lessons learned from a high-volume intensive care unit. *Anesth Analg [Internet]* 2020 May 5 [cited 2020 May 12];Publish Ahead of Print. PMID:32282389
 33. Larsen EP, Bonet SA, Sultana I, Zheng F, Sasangohar F, Kash BA. COR project report: Adoption of telemedicine for post-surgical follow-up visits. Internal report of the Houston Methodist Center for Outcomes Research [Internet]. Houston, TX: Houston Methodist; 2019. Available from: <https://1vv82dtluny8l2py3ufo882r-wpengine.netdna-ssl.com/wp-content/uploads/sites/23/2020/06/Telemed-Adoption.pdf>
 34. Fowler JC, Madan A, Bruce CR, Frueh BC, Kash BA, Jones SL, Sasangohar F. Improving psychiatric care through integrated digital technologies. *J Psychiatr Pract* 2020;forthcoming.
 35. Fish A, George S, Terrien E, Eccles A, Baker R, Ogunyemi O. Workflow concerns and workarounds of readers in an urban safety net teleretinal screening study. *AMIA Annu Symp Proc* 2011;2011:417–426. PMID:22195095
 36. Uscher-Pines L, Kahn JM. Barriers and facilitators to pediatric emergency telemedicine in the United States. *Telemed J E Health* 2014 Nov 1;20(11):990–996. PMID:25238565
 37. Koopman RJ, Wakefield BJ, Johanning JL, Keplinger LE, Kruse RL, Bomar M, Bernt B, Wakefield DS, Mehr DR. Implementing home blood glucose and blood pressure telemonitoring in primary care practices for patients with diabetes: lessons learned. *Telemed J E Health* 2014 Mar;20(3):253–260. PMID:24350806
 38. Shaw RJ, Kaufman MA, Bosworth HB, Weiner BJ, Zullig LL, Lee S-YD, Kravetz JD, Rakley SM,

- Roumie CL, Bowen ME, Del Monte PS, Oddone EZ, Jackson GL. Organizational factors associated with readiness to implement and translate a primary care based telemedicine behavioral program to improve blood pressure control: the HTN-IMPROVE study. *Implement Sci* 2013 Sep 8;8:106. PMID:24010683
39. Cowan A, Johnson R, Close H. Telepsychiatry in psychotherapy practice. *Innov Clin Neurosci* 2020 Apr 1;17(4-6):23-26. PMID:32802589
40. Heschel AJ. *The Sabbath*. New York, NY: Farrar Straus Giroux; 2005. ISBN:978-0-374-52975-8
41. Kahn MW. Pandemic and persona. *N Engl J Med* 2020 Jul 2;383(1):e1. PMID:32374955
42. De Sousa A, Karia S. Telepsychiatry during COVID-19: Some clinical, public health, and ethical dilemmas. *Indian J Public Health* 2020 Jun;64(Supplement):S245-S246. PMID:32496267
43. Sasangohar F, Scott SD, Donmez B. Interruption management and recovery in time-critical supervisory-level tasks: a literature review. *Proc Hum Factors Ergon Soc Annu Meet* 2013 Sep 1;57(1):1745-1749. [doi: 10.1177/1541931213571389]