ORIGINAL ARTICLE

Psychiatrist and Psychologist Experiences with Telehealth and Remote Collaborative Care in Primary Care: A Qualitative Study

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Abstract

Purpose: Availability of mental health services is limited in the rural United States. Two promising models to reach patients with limited access to care are telehealth referral and collaborative care. The objective of this study was to assess telepsychiatrist- and telepsychologist-level facilitators and barriers to satisfaction with and implementation of these 2 telehealth models in rural settings.

Methods: Focus groups were held in 2019 using a semistructured interview guide. Participants were off-site telepsychiatrists (N = 10) and telepsychologists (N = 4) for primary care clinics across 3 states (Washington, Michigan, and Arkansas) involved in a recent pragmatic comparative effectiveness trial. Qualitative analysis occurred inductively by 2 independent coders.

Findings: Participants were satisfied with the models partly owing to good patient rapport and expanding access to care. Teamwork was highlighted as a facilitator in collaborative care and was often related to work with care managers. However, participants described communication with primary care providers as a challenge, especially in the telehealth referral arm. Barriers centered on variability of logistical processes (eg, symptom monitoring, scheduling, electronic medical record processes, and credentialing) among sites. Staff turnover, variable clinic investment, and inadequacy of training were possible explanations for these barriers.

Conclusions: Participants described high motivation to provide team-based, remote care for patients, though they experienced operational challenges. Centralized credentialing, scheduling, and record keeping are possible solutions. These findings are important because consulting psychiatrists and psychologists may play a leadership role in the dissemination of these models.

Key words delivery of health care, integrated, psychiatry, qualitative research, telemedicine.

Despite a high prevalence of 7.5% of serious mental illness in rural areas of the United States,[1] availability of rural psychiatric services is limited, resulting in rural-urban disparities in service use and substantial unmet need.[1-3] This need has been steadily increasing.[4] In the near future, psychiatrist shortages are expected to worsen due to population growth and retirement of much of the workforce.[5] Innovative telehealth methods can expand access to care. Telehealth has transitioned over time from replications of in-person care, such as referral for telepsychiatry/telepsychology, to team-based models of care, such as collaborative care.[6] Team-based models address population health by increasing the overall capacity of the mental health care system.[6,7]

Telemental health referral care involves off-site telepsychiatrists and telepsychologists seeing patients directly in primary care via videoconferencing connections. The evidence indicates that telepsychiatry and telepsychology are noninferior to face-to-face mental health care in terms of diagnostic accuracy, improvements in mental health symptoms, and quality of life without an increase in adverse events.[8-10]

Collaborative care involves a psychiatric consultant systematically reviewing a caseload of patients presented by a behavioral care manager, use of a patient registry, measurement-based treatment, and treatment decisions informed by evidence-based care. The psychiatric consultant and behavioral care manager support primary care providers (PCPs) by providing care coordination, symptom monitoring, and recommendations for subsequent proactive pharmacologic or psychotherapeutic treatment changes.[11,12] This consultative approach increases psychiatrists' reach and capacity, supports PCPs in addressing mental health conditions, improves patient engagement in mental health care, and improves mental health outcomes across diverse settings.[12-16] Collaborative care can be supported remotely by off-site telepsychiatrists.[7,17,18]

Implementation of these interventions has had variable success due to common challenges in implementing new clinical services.[19-23] Systems-level barriers and facilitators to implementation have been elucidated in several studies.[8,19,20,23-26] Studies of provider-level telehealth experiences are relatively sparse[22,27-30] with even fewer studies homing in on the experiences of remote telemental health consultants in integrated care.[31,32] To our knowledge, none of these studies on telemental health consultants have focused on rural telepsychiatry and collaborative care specifically.

A recent pragmatic comparative effectiveness trial (the Study to Promote Innovation in Rural Integrated Telepsychiatry [SPIRIT]) enrolled 1,004 primary care patients who were randomized to treatment with telepsychiatry collaborative care (TCC) or telemental health referral care in 24 rural primary care clinics in 3 states.[33] We invited study telepsychiatrists and telepsychologists to share their experiences. Our objective was to understand the provider-level barriers and facilitators of satisfaction with and implementation of collaborative care and telemental health referral care in primary care settings. Results can inform efforts to improve providers' experiences, which could increase the dissemination of these models given the importance of "provider champions."[22,29,30,34] We are adding to the sparse literature on telemental health care provider experiences by juxtaposing the implementation of collaborative care and telepsychiatry referral interventions and including both telepsychiatrists and telepsychologists.

Methods

Setting and Participants

Twenty-four clinics from 12 Federally Qualified Health Centers (FQHCs) in 3 states (Arkansas, Michigan, and Washington) participated in the SPIRIT trial. All study telepsychiatrists and telepsychologists across the sites were recruited via email by the research coordinator to participate in a focus group scheduled during one of their regularly scheduled teleconference meetings, which was done to minimize provider burden and maximize attendance. Three of the focus group participants were authors (JC, AB, and JP). This study was approved as part of the larger SPIRIT clinical trial by the Human Subjects Division (IRB) at the University of Washington.

Components of SPIRIT

Because the evidence base for collaborative care mostly includes individuals with depressive disorders, the objective of SPIRIT was to evaluate whether patients with other diagnoses (posttraumatic stress disorder [PTSD] and/or bipolar disorder [BD]) would be best served by collaborative care or direct referral to telemental health. Patients were randomized (after stratifying by disorder and site) into TCC or telepsychiatry enhanced referral (TER) arms. BlueJeans (Verizon, Basking Ridge, New Jersey) or Zoom (San Jose, California) videoconferencing technology was used for patient appointments.

In the TCC model, an on-site care manager and off-site telepsychiatry consultant provided support to PCPs treating patients at FQHCs. The telepsychiatrist directly evaluated the patient via videoconferencing for an initial consultation including a diagnostic assessment. Telepsychiatrists could see select patients directly for follow-up consultation for diagnostic clarification or treatment nonresponse. The care manager met with the patient in

person or by phone (per patient preference) regularly (eg, every 2 weeks). The care manager monitored treatment response, delivered evidence-based behavioral interventions, provided psychoeducation, promoted treatment adherence, and coordinated care with PCPs via scheduling and reminding the patient to attend appointments. The telepsychiatrist and care manager had regularly scheduled systematic case review teleconference meetings. The consulting telepsychiatrist made treatment recommendations in the electronic health record (EHR) to the PCPs.

In the TER model, the off-site telepsychiatrist or telepsychologist used videoconferencing to assess and treat patients roomed on-site at their FQHC. The telepsychiatrist and telepsychologist were credentialed and privileged to treat patients at the FQHC and had access to the EHR. The telepsychiatrist performed the initial direct diagnostic encounter and ordered medications and laboratory tests directly in the EHR. The telepsychiatrist could see the patient longitudinally for ongoing assessment and treatment. The telepsychiatrist could also refer the patient for evaluation and treatment by a study telepsychologist who could deliver cognitive processing therapy for PTSD or cognitive behavioral therapy (CBT) for BD across 8-12 sessions. Care coordination was performed by clinic staff.

Some telepsychiatrists participated in 1 study arm only, whereas others participated in both.

Data Collection

We conducted a series of 2, hour-long semistructured teleconference focus groups of study telepsychiatrists and 1, hour-long focus group of study telepsychologists. The interview guide was primarily created by 2 study psychiatrists who had also helped create the SPIRIT protocol (JC and AB) based on their clinical experience in the trial and themes from previous qualitative telemental health studies.[27,30,35,36] These authors met several times to revise the guide in conjunction with the lead author (MH), a psychiatry resident with no prior involvement in SPIRIT. Questions centered around providers' impressions of communication among team members, ease of assessment and diagnosis, ease of building rapport with patients, and procedural/operational factors as well as providers' general impression of the intervention. The study psychotherapy supervisor also revised the interview guide. Author DB was selected to facilitate the focus groups based on her experience as a member of the SPIRIT evaluation team and expertise in qualitative research. DB drew from the interview guide and also allowed open-ended discussions to organically develop. All interviews were transcribed verbatim.

Data Analysis

Interview transcripts were sent to the coders (MH and MT), who uploaded transcripts into Atlas.ti (Berlin, Germany) and Dedoose software (SocioCultural Research Consultants, Manhattan Beach, California), respectively, for qualitative analysis. MH initially created a code book using a data-driven, inductive approach based on grounded theory with input from JC and AB due to their experience as study telepsychiatrists. This empirical approach was thought to be favorable over a deductive approach given the novelty of this analysis of telemental health provider experiences of TCC and TER, precluding prior formation of hypotheses to guide analysis. MT, a graduate student with no stake in SPIRIT, then used the code book to independently code the data. The code book and codes were iteratively discussed by MH and MT and revised as new themes emerged in several reconciliation meetings. The coding process and consensus meetings were supervised by experienced qualitative researcher DB. Inter-rater agreement was 84%. MH and MT synthesized major themes based on conceptual relationships between codes and participants' repetition and emphasis of certain concepts. MH made minor changes to theme organization and wording using Consolidated Framework for Implementation Research (CFIR) constructs.[37] Implementation-related themes frequently mapped onto the CFIR constructs so were amended to include CFIR verbiage, while themes unique to participants' personal experiences were not changed. Major telepsychology themes were triangulated with the psychotherapy supervisor. Results were reported using the Standards for Reporting Qualitative Research.[38]

Results

Participants included study telepsychiatrists (N = 10, 4 females and 6 males) and telepsychologists (N = 4, 3 females and 1 male) with representatives from each involved state (Arkansas, Michigan, and Washington). These participants were the entirety of consulting telepsychiatrists and telepsychologists involved in SPIRIT at the time of the focus groups, signifying a 100% participation rate. Major findings are summarized in Table 1.

Outer Settings

External Constraints as Barriers to Satisfaction

Though some participants noted feeling supported in managing complex patients by community mental health centers, a few participants revealed it was difficult to mobilize community resources in emergency situations: *"But*

Table 1 Summary of Major Findings

Themes	Main finding
Overall positive regard for the interventions	Participants overall believed that these telehealth models were worthwhile to continue.
External constraints as barriers to satisfaction	Community mental health centers helped manage complex patients, though mobilizing community resources proved difficult in emergency situations.
Patient needs and resources	Participants felt fulfilled in expanding patients' access to mental health care.
Logistical challenges in the clinic	Participants struggled with getting credentialed, scheduling their patients, documenting in several EHRs, and ordering labs.
Readiness for implementation	Implementation success varied by clinic based on the level of clinic and staff investment, staff training, and clinic resources.
Networks and communications	Several participants appreciated close communication with staff and felt like part of a team.
Technology as a facilitator of communication	Videoconferencing technology was not a major barrier, though EHR documentation was.
Rewarding patient interactions	Almost all participants were pleased with patient rapport.

even getting police to do welfare checks in other parts of the state has been really harder than I imagined" (Psychiatrist, female). This lack of control was sometimes related to being remote: *"Your professional opinion gets overridden by whoever happens to be there" (Psychiatrist, female).*

Patient Needs and Resources

Almost all participants applauded the interventions for expanding care in populations that would not have received mental health care otherwise. As a result of feeling that they were fulfilling a need, participants found the interventions satisfying: *"It's a population I don't usually get to serve. And it's just been really rewarding to be able to provide" (Psychologist, female).* Most participants acknowledged practice limitations in each study arm, and many clinicians reported wanting to blend treatment models such that certain TCC patients could receive more intensive psychotherapy from the study telepsychologists, and TER patients could have care managers who closely monitored symptom measures.

Inner Settings

Logistical Challenges in the Clinic

Being remote also resulted in several logistical challenges in the clinic, including unfamiliarity with clinic processes and relying on other providers to deliver symptom monitoring instruments (Table 2). Due to the involvement of many providers and clinics, which sometimes did not accept centralized university credentialing, several participants struggled to get credentialed, schedule, document

in the EHR, and order labs; 1 participant noted as a barrier *"4 different electronic medical records and different health centers and just figuring out the boundaries of who is ordering labs" (Psychiatrist, male).* The value of a "point person" to help with scheduling and troubleshooting arose a few times. For several providers, the success of the clinical workflow hinged on communication with PCPs. One participant commented that *"recommendations were implemented relatively quickly, and if there were questions they asked, and it was really smooth" (Psychiatrist, female).* Others struggled to get PCPs to implement recommendations, especially with regard to controlled substances.

Readiness for Implementation

Variability of success by clinic was a major theme endorsed by many participants, and variability by arm was endorsed by 1 participant (Table 2). The workflow complications above were related by many participants to clinic buy-in. Staff-level investment was also brought up many times. Clinic staff engagement was related to turnover by a few participants: *"We went through 2 additional care managers—and I would say we never got anyone engaged again" (Psychiatrist, female).* A few participants related staff engagement to the quality of training and orientation. Several participants favored discussions among providers about patients or educational topics to advance knowledge and engagement. Some clinics had invested less infrastructure and personnel resources toward the study: *"One of our clinics seemed a little bit less invested in this with their care manager time than a couple of the other clinics" (Psychiatrist, male).* Low clinic-level investment sometimes resulted in care managers being "swamped"

Table 2 Quotations Illustrating Comparisons Between Study Arms

Themes	Representative quotes
Networks and communications	"In the [TCC arm] the care manager is more key to the interventions and the connection to the primary care doc as well." (Psychiatrist, male)
	"I would say I felt pretty siloed for the [TER arm]. Whereas for [the TCC arm] since we worked so closely with the care manager I felt at least like a dyad with the care manager." (Psychiatrist, male)
	About the TER arm: "I have reached out to the SPIRIT psychiatrists that the patients are seeing within our study. And I have done that multiple times and that's been very helpful." (Psychologist, female)
	"In the [TCC arm] for the most part I really would have loved to meet virtually all the docs and PAs and NPs I was working with and that just wasn't a possibility. But in one of my clinics, like one of the PAs came to my panel meetings and they asked me some questions over the video and that was really great and I think it empowered her to call me a couple of times with questions." (Psychiatrist, male)
	"The [TER arm] mimics [...] care as usual a little bit more closely. Like I don't normally reach out to the PCP of all my patients, just if there's something medical going on or something I need to coordinate with them on. But with [the TCC arm] obviously you rely on them a lot more for the actual prescriptions and all these pieces." (Psychiatrist, male)
Logistical challenges in the clinic	About the TER arm: "Sometimes you didn't get it emailed until after you were done seeing the patient. So you had the therapy decisions without the PHQ-9." (Psychiatrist, male)
	"With the [TCC arm] of course we always had the [PHQ] data." (Psychiatrist, male)
	"I didn't notice any differences between the arms." (Psychiatrist, female)
	"I would get all the screeners on every patient whether they were in the [TCC or TER] arm." (Psychiatrist, male)

with study tasks and clinical duties outside of the study.

Networks and Communications

Communication among study clinicians and care managers, PCPs, and other clinic staff helped several participants feel like part of a team, which enhanced their satisfaction with the interventions. For 1 participant, *"It was very easy to feel like part of a team because the team is so small and easy to communicate with" (Psychiatrist, female)*. In the TCC arm, participants felt like a "dyad" with care managers: *"Their care manager is just really on the ball and I felt very supported by her" (Psychiatrist, male)* (Table 2). Both telepsychiatrists and telepsychologists in the TER arm felt "siloed" when "providing parallel care," which was a barrier to satisfaction for several participants: *"I think what we miss is the connection to other providers in the clinic" (Psychologist, male)*. However, a few participants felt like parallel care was sufficient, and both telepsychiatrists and telepsychologists in the TER arm appreciated reciprocal communication with each other.

Technology as a Facilitator of Communication

Most participants reported ease of use of the videoconferencing technology. A minority of participants experienced video connection issues, such as the clinic having difficulty logging into the videoconferencing platform, the platform crashing, or poor video resolution limiting clinician observation. However, many participants said that technical issues *"may occur occasionally but it's not a barrier to doing this" (Psychiatrist, male)*. A few praised the benefit of screen sharing CBT homework or symptom measures. A few participants noted smooth communication through the EHR, but some struggled to fully learn how to accomplish tasks through several different EHRs.

Overall Positive Regard for the Interventions

Participants overall appreciated the interventions and believed telehealth was worthwhile to continue, though one participant qualified this statement: *"I'd be happy to continue with some of those clinics that supported us [...] and were less high maintenance" (Psychiatrist, male)*.

Individuals Involved

Rewarding Patient Interactions

Almost all participants were pleased with patient rapport over telehealth: *"From a rapport perspective I was pleasantly surprised" (Psychologist, female)*. Several participants mentioned that being remote from patients' home communities encouraged patients to divulge trauma histories they may not have in person. A few felt that telehealth prohibited them from doing a full clinical evaluation.

Discussion

Our qualitative study is the first to focus on telepsychiatrist and telepsychologist experiences working in 2

telemental health models in rural primary care settings. No other studies have surveyed telepsychiatry consultants in rural collaborative care specifically. Overall, participants were highly motivated to expand access to mental health care and were satisfied with the interventions though noted several barriers. Major facilitators included the perception of improving access to care, rapport with patients, and working as part of a team; participants felt more like a team member in the TCC arm than the TER arm. Major barriers comprised workflow impediments, working with multiple EHRs, variable integration into clinics, and community-level constraints to some aspects of care.

Participants' satisfaction with the interventions was frequently related to feeling like part of a team. TCC participants noted more of a team feeling than TER participants, which is a novel finding that appears to be related to the presence of care managers in the TCC arm. Moise and associates found that clinics were less likely to sustain a collaborative care intervention if the care manager did not have a weekly meeting with the consulting psychiatrist.[22] Thus, being remote did not appear to interfere with feeling like a team, though having fewer interprovider interactions did.

Though communication with care managers went well, participants noted less frequent communication with PCPs, especially in the TER arm, which posed problems for patient care and satisfaction for some participants. Prior research has focused on collaborative care[27,29]; our finding that communication with PCPs is a barrier in telemental health referral care is novel. Limited communication decreased PCPs' implementation of telepsychiatrists' recommendations, which is consistent with findings of a large collaborative care trial.[27] PCPs in 1 qualitative study had more positive attitudes toward depression medication after being educated by consulting psychiatrists.[39] As such, Dickinson and our participants suggested scheduling regular interdisciplinary meetings or case discussions. Providing frequent feedback on depression outcomes may also improve PCP engagement.[39–42]

Participants elaborated on several workflow-related barriers. Participants not receiving symptom measure results in time to inform clinical decision making echoes 1 other study.[22] Participants in both arms elaborated on credentialing, scheduling, and EHR documentation difficulties reported in other telehealth studies.[28,35,43] Centralized systems, such as credentialing by proxy, are needed.[44,45] Additionally, partnerships between FQHCs and medical schools could allow many part-time telemental health providers—rather than a few full-time providers—to each work only at a few sites with the same EHR to address the barrier of learning several EHRs.[45] In-person clinic visits by consultants,[32] regular implementation progress meetings,[23] and external facilitation offer other solutions to operational barriers; external facilitation was shown to increase the retention of telehealth interventions.[24,26,46]

These operational barriers were related to variable clinic infrastructure and leadership buy-in. Staff turnover and variable orientation and buy-in of oncoming staff are common telehealth issues.[22,26,27,29,31,36,47,48] Additionally, multiple participants mentioned that care managers were swamped in competing tasks, a known challenge in collaborative care[7] that may influence the aforementioned operational difficulties. Extra staff members to assist care managers in their tasks may be needed.[49] Longitudinal visits from a university representative to help with implementing telehealth services could also increase buy-in.[26]

There were fewer mentions of technology problems compared to a recent review of provider experiences with telepsychiatry,[28] which is likely related to improvements in videoconferencing technology compared to some older studies included in this review.

Our findings were consistent with other studies finding that providers were pleasantly surprised with the good rapport with patients over telehealth, especially for trauma-related treatment.[24,28,46,47,50,51] Telepsychologists in particular found patient interactions in psychotherapy to be mutually rewarding, contrary to the belief of some administrators in a prior study.[51] Several participants from the TCC arm wished their patients could get intensive psychotherapy from study telepsychologists, and Fortney and colleagues found that the effect of a collaborative care intervention for PTSD was mediated by engagement in evidence-based psychotherapy.[7] Therefore, perhaps the most ideal telehealth model would be a stepped care approach that combines the team environment of collaborative care and more intensive psychotherapy availability of telehealth referral.

Limitations

A limitation is that the experiences of the small number of telepsychiatrists and telepsychologists in this research trial may not generalize to clinical settings. We are, nonetheless, adding important descriptive data to the literature, and many elements of the SPIRIT model are shared by clinical models, improving the generalizability. Another potential limitation is that focus groups may have prevented participants from sharing honest opinions compared to individual interviews. However, the moderator explained the purpose of the groups at the beginning and participants were familiar with each other and with this setting, which likely encouraged them to share freely.

Conclusions

Telemental health collaborative care and referral models were overall acceptable to mental health providers due to perceived patient benefits and satisfaction with team-based care; however, workflow-related barriers should be addressed to foster stronger provider champions willing to disseminate these models. Future research should survey larger samples and explore provider experiences of different integration models and combinations of models. Studies should investigate additional strategies for improving the integration of consulting telemental health providers into existing clinical and local infrastructures and for sustaining this integration.

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