

Clinical Lessons from Virtual House Calls in Mental Health

The Doctor Is in the House



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KEY POINTS

- Advances in technology and innovation have afforded greater flexibility in how, when, and where patients receive services.
- The use of video-to-home (VTH) telehealth is a patient-centered approach to clinical care that allows providers to tailor care to specific need of individual patients.
- A series of case vignettes are presented in order to help challenge provider's existing beliefs about who may be a good clinical fit for VTH.
- The authors suggest that continued education and training as well as generating or joining a community of practice will help providers achieve greater comfort and competence with VTH.

INTRODUCTION

Technology-based solutions have improved access to effective evidence-based mental health care services for many patients who may otherwise receive limited treatment, or worse, go without care.¹ Telehealth to the home, also known as video-to-home (VTH), is a delivery modality in which mental health providers connect with patients through use of a live, interactive, Web-based, video-conferencing feature via personal computers, laptops, tablets, or other similar devices. Until recently, the most common method of telehealth was clinic-to-clinic delivery, whereby a provider at 1 clinic would reach a patient physically located at a different clinic. VTH now moves the location of care from clinical settings into the patient's home or other private location. It also differs from other synchronous and asynchronous technologies, such as telephone-only services or store-and-forward (asynchronous) telehealth. Although remote delivery of care using videoconferencing is not new (eg, clinic-to-clinic telehealth services), VTH has increased the reach of care to patients who may experience considerable logistical and sociocultural barriers to care, allowing care to be delivered directly to them at home. This article highlights potential benefits and considerations for providers interested in expanding their use of VTH to engage patients who are difficult to reach or who have complex presentations.

BENEFITS OF VIDEO-TO-HOME FOR PATIENTS AND PROVIDERS

VTH is an innovative delivery method that promotes patient-centered care by giving the patient more control over where, when, and how he or she receives care. High rates of patient satisfaction and acceptance of VTH have been documented, and studies support the feasibility of using this mode of delivery.²⁻⁴ Also, some patients may feel more comfortable engaging in therapy, or more collaborative within the therapeutic relationship, if a provider is flexible in the ways that he or she is willing to deliver care.⁵⁻⁹

Providers delivering care through VTH also may have the advantage of accessing information about the patient's home environment and lifestyle that is not readily available or disclosed during in-person appointments. For example, VTH may better facilitate clinical activities, such as medication reconciliation, assessment of the patient's environment (eg, hoarding), or demonstration of a skill in vivo (eg, practicing exposure exercises). Live access to this type of information also reduces the patient's burden to remember or communicate details of his or her environment

relevant to his or her mental health care, allowing more seamless communication between provider and patient. Logistically, VTH saves time for both patient and clinician, by reducing burden of travel and removing administrative aspects of clinical care (eg, checking in during in-person appointments, or picking patients up from the waiting room).

CONSIDERATIONS FOR INCORPORATING VIDEO-TO-HOME TECHNOLOGIES INTO CLINICAL PRACTICE

Despite the many benefits of VTH, some providers express concerns about safety, effectiveness, cost, ease of use, confidentiality, and security. In a recent review of VTH, Fletcher and colleagues² explored the literature surrounding the use of VTH for mental health services, with a focus on the following:

- Clinical effectiveness
- Treatment adherence
- Patient and provider satisfaction
- Cost-effectiveness
- Clinical considerations when using VTH
- Implementation of VTH for veterans

Consistent with previous literature,² the authors note that VTH is a safe, feasible, and effective option for improving access and maximizing patient choice. Although this body of literature is still growing in response to innovations and improvements in technologies, a consistent message to providers is that they can be confident that delivering care via VTH is comparable and equivalent to in-person care.

With appropriate training and consultation, providers can increase their comfort and competence using VTH. Incorporating VTH into one's practice requires attention to several issues, such as patient appropriateness, setting up the home environment, setting up the required technology, understanding payer models, managing risk remotely, and addressing potential legal and ethical issues. Providers may also have reservations about using technology in their clinical practice for fear of losing control of VTH sessions, concerns about their ability to establish rapport over videoconferencing, and feelings of being ill equipped for safety or emergency situations.² Guidance exists on how to address many of these broad issues.^{3,10,11} However, the literature does not address additional, more nuanced patient/provider/environmental challenges when using VTH, and they are not always apparent at the outset of treatment. Very few resources discuss relevant clinical considerations for mental health providers wanting to expand their use of VTH beyond basic setup. Thus, many providers may find themselves navigating complex clinical issues throughout treatment, with minimal direction. Of the little work published in this area, much has concentrated on emergency planning and remotely managing patients determined to be high risk for suicidal behaviors, ensuring safety for both patient and provider.¹²

Another limiting factor for some providers may be a lack of understanding about reimbursement models as they relate to VTH services. Insurance coverage and payment issues around telehealth are complex, are rapidly changing, and most often vary by state. Currently, there is no clear guidance on reimbursement for VTH, but around half of all states mandate that reimbursement of telehealth services is comparable to in-person services. Thus, providers should be aware of federal rules and regulations as to what codes may be reimbursed. Although parity exists for telemental health services delivered clinic to clinic, services delivered in-home, such as VTH,

are not generally covered; therefore, the extent to which VTH may be reimbursed is unknown. Recommendations include researching policies based on the provider's geographic area and seeking information on insurance company regulations to understand what services and what type of providers are covered and eligible for reimbursement under one's license. That being said, policy changes are happening constantly. For example, effective June 11, 2018, federal legislation known as "Anywhere to Anywhere" was passed, which ". . . ensures that Veterans Affairs healthcare providers can offer the same level of care to all beneficiaries, irrespective of the State or location in a State of the Veterans Affairs health care provider or the beneficiary."¹³ Federal support for VTH within the Veterans Health Administration (VHA) waives all copays for VTH sessions. Workload credit for VTH is billed with the same codes and at the same rate as in-person sessions (as long as there is a video component during the session). Although this legislation is not inclusive of providers outside the VHA health care system, it demonstrates the importance of staying aware of the changes in the legal landscape related to VTH.

At present, Medicare, the federal insurance program for those 65 and older and younger people with disabilities, does not cover VTH services. Medicare limits coverage to live video (as opposed to store-and-forward or asynchronous telehealth, or telephone-only services), and the originating site (that is, the location of the patient) must be a rural location, officially designated as a Health Professional Shortage Area or in a county outside a Metropolitan Statistical Area. Moreover, the patient can only be seen in certain medical settings, such as a provider's office, a skilled nursing facility, a rural health clinic, or a hospital.

Because states have more control over their Medicaid programs, nearly all states (49) provide Medicaid coverage for telehealth; around 20% of states provide coverage for store-and-forward services, and nearly half of states do not specify a patient setting or patient location as a condition of payment. Thus, Medicaid is far more flexible than Medicare in reimbursing VTH services right now.

In addition to expanding awareness of the logistics of VTH (eg, getting started, license coverage, insurance reimbursement), clinical fit for this mode of delivery is at the forefront of deciding which patients might benefit most from remotely delivered care. Previously held beliefs about which patient groups are, or are not, a good fit for telehealth are beginning to be challenged.² Previous ideas about which patients were inappropriate for telehealth include those with the following:

- Limited access to technology
- Severe psychosis, paranoia, or impaired reality testing
- Poor impulse control or severe mood dysregulation
- Active suicidal or homicidal tendencies
- Active/severe substance use disorder or intoxication
- Severe cognitive impairment
- Severe sensory impairments³

With development of new innovations, such as built-in accessibility features for those with sensory impairments, and wider availability of personal technologies (eg, cell phones, tablets) and technologies available through health care systems, many barriers that may have previously limited VTH are no longer an obstacle. These advances, and expansion of the understanding of the safety, effectiveness, and feasibility of VTH, have shifted the field away from an approach of "exclusion criteria," toward an emphasis on clinical expertise of the provider and competency in delivery of VTH.²

CLINICAL CHALLENGES AND CREATIVE SOLUTIONS WHEN PROVIDING VIDEO-TO-HOME

This article presents a series of clinical vignettes describing unique challenges providers may face when incorporating VTH into their clinical practice, or when expanding their VTH practice, and offers potential solutions to overcome these barriers. Given that the literature related to VTH is scant, these examples were selected to help providers challenge their biases about what types of patients may be a good fit for VTH. The cases cover 5 issues the authors have encountered when using VTH to deliver mental health care to patients with a wide variety of demographic and clinical characteristics, including the following:

1. Overcoming barriers to technology literacy
2. Increasing access to specialty services for patients living in areas with limited providers
3. Facilitating the transfer of care for patients with complex treatment regimens and logistical barriers to VTH
4. Leveraging VTH to reduce stigma as a barrier to care
5. Remotely managing treatment-interfering behaviors

The authors' primary aim is to increase confidence and competence of providers who are (1) just beginning to use VTH, and (2) looking to expand their clinical offerings to a broader range of patients that includes more challenging clinical populations.

CASE VIGNETTE 1: OVERCOMING BARRIERS TO TECHNOLOGY LITERACY

Continued use of VTH has challenged previously held beliefs and standards regarding which patients are "appropriate" for VTH. Factors, such as age, "tech savviness," and challenging clinical presentations, were previously considered in determinations regarding which patients are best suited for VTH. However, recent studies demonstrate the feasibility of using this approach with a broad selection of patients.^{14,15} Moreover, high satisfaction and acceptability of home-based videoconferencing technology are reported across age and other sociodemographic characteristics (eg, rurality¹⁶). Although additional work toward improving the ease of using technology is needed, the following case vignette demonstrates that level of familiarity with technology and the experience of prior technology problems should not deter providers from offering VTH to patients. Nor should patients be excluded from this type of care, based solely on age, diagnosis, or technological literacy.

A 55-year-old rural veteran with chronic posttraumatic stress disorder (PTSD) characterized by hypervigilance and social isolation was not engaging in VHA clinical services because of a long drive (more than 90 minutes) to the nearest VHA clinic. He also reported experiencing significant anxiety and distress whenever he left his secure home environment. When his provider initially mentioned the option of receiving services directly in his home through VTH, the veteran was hesitant. His previous telehealth experience, limited to clinic-to-clinic videoconferencing, did not leave him with a high level of comfort with navigating technology, nor did it address his travel and anxiety barriers. Despite reservations, the veteran was interested in receiving his care in the comfort of his home through VTH. He was previously dependent on staff assistance to help him navigate telehealth technologies in a clinic setting, but he was willing to try VTH and received a VHA-issued tablet. He had difficulty setting up videoconferencing on the tablet using standard VHA technical support available via phone (National VA Telehealth Helpdesk: 866-651-3180); thus, his provider offered to work with him in person along with the assistance of a remote VHA technical support

team to resolve this issue. Although not standard practice, these additional troubleshooting efforts were time limited and successful. Afterward, the provider created a written technology protocol, specific to the difficulties this patient experienced, that facilitated his use of VTH to engage in ongoing treatment.

CASE VIGNETTE 2: PROVIDING SPECIALIZED MENTAL HEALTH TREATMENT WHEN THERE ARE NO LOCAL PROVIDERS WITH NEEDED EXPERTISE

Given that providers with specialized skill sets tend to be located in larger cities, finding care from a qualified specialty provider may be especially difficult for patients with complex medical and/or psychiatric comorbidities who live in rural areas.¹⁷ The following case vignette showcases how VTH can be used to increase access to specialty mental health services for rural and underserved patients.

A 17-year-old female student from a rural area was hospitalized following her first manic episode while at college. Upon her discharge from the hospital, her family was unable to find local providers who could provide follow-up care, particularly for an adolescent suffering from bipolar disorder. As a result, the family had to drive 3 hours to the university clinic, where the patient received medication management and the family engaged in specialty psychotherapy for bipolar disorder from experts in child and adolescent bipolar disorder. Concerned about the sustainability of traveling nearly 6 hours round trip for future appointments, the patient, family, and providers discussed the option of receiving care via telehealth. Via VTH, the patient continued to see her psychiatrist every few months for ongoing medication management, and the family continued in family therapy, psychoeducation, and relapse prevention training for bipolar disorder. When family therapy was completed, the adolescent was able to continue seeing her therapist via VTH for individual therapy.

CASE VIGNETTE 3: NAVIGATING CONTINUITY OF CARE UPON LOSING A PROVIDER

As shown above, VTH can reduce many logistical barriers to receiving care (eg, distance to provider, work schedule) and provide access to specialty care that otherwise may not be available within a geographic area. Even in routine clinical practice, patients can have complex treatment regimens that require specialized training or clinical experience. This can make transferring these patients' care to another provider very challenging following the loss of a primary provider. The following case vignette shows why VTH may be a valuable solution in this scenario.

A 64-year-old woman living in a rural community had been receiving in-person care for 20+ years from a psychiatrist 1 hour away, for long-standing depression. Although she was only seen every 3 to 4 months, the patient was on a medication regimen that included a monoamine oxidase inhibitor and an antipsychotic, as well as medications for diabetes and hypertension. After numerous failed trials on selective serotonin reuptake inhibitors, selective norepinephrine reuptake inhibitors, and tricyclic antidepressants, the patient began taking tranylcypromine, which, combined with olanzapine, led to complete remission of her depressive symptoms. When it was almost time for her provider to retire, they discussed the patient's need for another provider who was both knowledgeable and comfortable with complex medication regimens such as hers.

During their discussion, the patient was adamant about not wanting to change medications, fearing a relapse of her depression. In agreement, her psychiatrist contacted her primary care provider about transferring her care. Her primary care provider was willing to bridge the patient's medications for a few months but felt uncomfortable prescribing and monitoring a complex psychiatric medication regimen that included a

monoamine oxidase inhibitor. At their next appointment, the psychiatrist and patient discussed seeing a specialist in mood disorders at a nearby university. Her psychiatrist was aware that the patient's husband's health had steadily deteriorated to the point where she was unable leave him alone for the full day it would take her to drive to the nearest major city, see a psychiatrist, and return home. Luckily, the mood disorder specialist at the university was willing to see the patient via VTH. The patient was thankful that she would be able to continue her medication regimen while staying home to care for her husband.

CASE VIGNETTE 4: LEVERAGING VIDEO-TO-HOME TO OVERCOME STIGMA

Self-imposed and social stigmas about mental health are major barriers to care.¹⁸ Mental health stigma perpetuates negative stereotypes that diminish help seeking, especially in public domains. VTH technology places practitioners in a unique position to deliver health care to stigmatized populations that might not otherwise receive treatment. VTH also provides a sense of security for patients because they can control the environment in which treatment is received. The following case vignette illustrates the use of VTH to promote treatment engagement among patients who might not otherwise engage in care because of stigma-related barriers.

A 28-year-old female veteran was referred for treatment to address chronic PTSD symptoms associated with military sexual trauma. During intake, she appeared visibly anxious. When her therapist asked about her demeanor, the veteran shared that coming to the VHA was difficult. She often felt that people knew she had been assaulted and were silently judging her. She was also uncomfortable sitting in clinic waiting rooms, predominantly occupied by male veterans. This heightened her fears of potentially confronting her perpetrator or even being assaulted again. Sensitive to these concerns, the veteran and her therapist opted for VTH delivery of Prolonged Exposure, a well-established PTSD treatment that has been successfully delivered through VTH technology.^{19–21}

The veteran initially received VTH sessions in her apartment, where she resided alone. Concerned that her neighbors could overhear her sessions, she wore headphones and occasionally used the built-in chat-room feature to discuss very private information. This feature was most helpful when assessing her symptoms at each session. Part of the veteran's treatment included in vivo exposure, during which the therapist helps the patient approach anxiety-provoking situations without performing avoidance strategies that would otherwise further reinforce anxiety. In preparation for the behavioral exposures, the veteran's therapist saw an opportunity to provide her with real-time feedback that could optimize her therapeutic experience. At the next session, the veteran checked in with her therapist from her parked car to review the exposure, which involved walking in a crowded park. Afterward, the veteran reconnected with her therapist from the car to debrief and receive feedback. She completed the remaining in vivo exposures on her own, between therapy sessions. As she grew confident with using her newly acquired skills in her daily life, she and her therapist moved toward a hybrid approach in which the veteran attended a mixture of in-person and VTH sessions. This promoted generalization of her skills to different environments and situations. At their terminating session, the veteran thanked her therapist for recommending VTH, admitting that she would have dropped out of treatment if in-person sessions were her only option. She noted that the virtual space created a physical buffer that made it easier to engage with the provider without ruminating on the therapist's perceptions of her.

CASE VIGNETTE 5: REMOTELY MANAGING TREATMENT-INTERFERING BEHAVIORS

Behaviors disruptive to the therapeutic relationship, otherwise known as treatment-interfering behaviors, range in intent or purpose, may be overt or covert, and can be directed toward the self or others.²² Common examples include homework noncompliance, missing sessions, frequently switching the focus of therapy, or withholding information or disclosing nonfactual information. These behaviors are often defined by their function rather than intent and make it difficult for the patient to effectively and successfully engage in treatment. For example, missed sessions may reflect avoidance behavior or possible disagreement with the treatment approach. Although the aforementioned behaviors may present during VTH delivery, nonverbal behavior is often less pronounced or more ambiguous when using VTH technology. This can make it difficult to recognize when a disruptive behavior is occurring. There may also be technology-specific disruptive behaviors to manage that are not applicable to in-person settings (eg, intermittently and/or unexpectedly turning off the camera or audio, scheduling appointments at inappropriate times). New, creative solutions for addressing these therapy-interfering behaviors over VTH, as presented in the following case vignette, may be needed.

A 46-year-old man was receiving individual psychotherapy to address his history of complex trauma beginning in childhood. Early in treatment, he canceled or missed in-person appointments frequently owing to last-minute shift changes at work. He worked a variable schedule at a part-time job, filling in shifts whenever he could to make a livable wage. He and his provider discussed using VTH, which was expected to accommodate his variable work schedule. Agreeable with this plan, the patient was easily able to set up his personal iPad to connect with his provider. However, during the second session, he ended the encounter early to take a work-related call. With the progression of sessions, more and more interruptions disturbed scheduled sessions. For example, the patient once connected to a session while operating equipment in the warehouse and another time while driving on the highway. This behavioral pattern concerned the provider, especially because these behaviors escalated. Not only was the patient putting himself in a vulnerable and unsafe position (eg, answering while driving and operating heavy machinery), but he was also violating the provider's boundaries in a way that could have legal implications (eg, malpractice lawsuit). At the next session, the patient answered the phone while putting on his work shirt. The provider spent that session identifying the patient's therapy-interfering behaviors, also exploring prompting events; consequences of the behavior; and alternative, more skillful behaviors. One solution they generated included moving sessions from unstructured home and work environments to a predetermined private space in a public setting easily accessible to him. Rather than delaying the start of time of visits, the provider encouraged the patient to use skillful strategies, such as verbalizing discomfort, which complemented the mode of delivery because there were fewer opportunities to interpret nonverbal behaviors. The therapist reasserted therapy boundaries by collaboratively generating a contract of "ground rules" for the way sessions would continue (eg, not connecting while driving), with consequences that the sessions would be rescheduled rather than delayed. Finding stability in location and clarity in therapeutic boundaries allowed greater structure of therapy sessions, while still offering a flexible approach to the patient.

CLINICAL LESSONS LEARNED FROM VIRTUAL HOUSE CALLS IN MENTAL HEALTH

In the first case vignette, it was learned that generating guidelines for patients without strong technical skills may help patients overcome barriers related to technology

literacy. Patients who appear to be poor candidates for in-home videoconferencing because of a lack of technological acumen may be able to participate with additional setup support and training from providers. Operating from the position that patients can learn to navigate new technologies will help challenge providers' misconceptions about the need for patients to be "tech savvy." Relatedly, the way a provider explains or describes VTH to patients, otherwise known as "messaging," will influence patients' confidence and willingness to engage in this mode of delivery. Providers may benefit from exploring their messaging of VTH to patients and take note of discrepancies in explaining the VTH approach, which may lead to disparities in whom is offered this type of care (eg, older adults). Providers who engage their patients in a collaborative process of troubleshooting around technology may also find this process helps establish, build, and strengthen rapport. These suggestions should be considered in the context of both time and effort available from the organization (eg, resources to develop training materials) to provide this type of support as well as the overall potential benefit to the patient.

The second and third vignettes offer snapshots of how VTH can eliminate barriers to engaging in traditional mental health services. These cases, although seemingly at opposite ends of the spectrum (eg, engaging an adolescent in family-centered care vs assisting an older adult in replacing access to specialty mental health), have many overlapping themes. VTH reduces the overall burden of care for patients living in areas with limited access to specialty care for serious mental illness (eg, bipolar disorder) or chronic psychiatric disorders. It can improve integrated health care services whenever patients can see members of their treatment team, increasing the sustainability of complex treatment regimens (eg, psychiatry visits, family therapy sessions, individual sessions). Allowing patients to be seen in their homes also addresses many practical barriers (eg, traveling long distances to nearest facility, caregiving responsibilities), which increases engagement and fosters support.

In the fourth case vignette, adapting the patient's treatment environment helped to overcome stigma and enhance exposure-based work, leading to better outcomes. This flexible approach gives stigmatized patients a sense of control over their environment. The virtual space can reduce concerns about public ridicule and privacy and create an environment in which the patient is better able to engage in treatment. Furthermore, this case demonstrated how VTH can enhance elements of a treatment protocol that are not easily replicated in the traditional office-based therapeutic environment (eg, conducting live exposures in the patients' natural environments). In other words, providers are not restricted to the patients' home or office setting.

The final case vignette provided insight into how providers might address treatment-interfering behaviors over VTH. VTH introduces new ways for sessions to be disrupted and, therefore, providers must expand their understanding of what constitutes a treatment-interfering behavior (eg, poor eye contact vs deliberately positioning oneself off camera). These behaviors may also be difficult to detect, because VTH affords less access to nonverbal communication. Therapists should use a collaborative therapeutic process to identify these behaviors with the patient and integrate the solution into ongoing therapy when possible. Therapeutic techniques used during in-person encounters can help inform and model a virtual approach, such as structuring contingencies.

All in all, providers may need to get creative when incorporating VTH into their clinical practice. Evidence-based guidelines, tools, and techniques commonly recommended for in-person encounters can likely be adapted to VTH. That being said, VTH should be conceptualized as the mode in which a provider is delivering a

treatment rather than the treatment itself. It may also be helpful to think about VTH as a clinical tool that can be combined with more traditional in-person models of care. This point of view allows a provider the flexibility to offer “hybrid-style” care, whereby a provider may use VTH to bridge between less frequent in-person sessions, or as a way to enhance treatment protocols (eg, exposure-based therapies).

SUMMARY

As the understanding of clinical appropriateness for VTH expands, so does the capacity of providers to deliver patient-centered care that can be tailored to the specific needs of individual patients. VTH also allows greater flexibility in how, when, and where services are received, which may add to the collaborative nature of the therapeutic process. Connecting to patients electronically, in their homes, affords greater access to information about patients’ environments that otherwise might not be disclosed and can enhance the quality of care by increasing generalizability of skills to different contexts.

Technology is allowing providers to expand their reach and deepen clinical experiences through the use of enhanced features. For example, clinical conditions once deemed inappropriate for VTH (eg, substance use disorders, psychosis, sensory impairments) are no longer exclusionary criteria for providers with expertise in those areas who wish to reach their patient via VTH.² Enhanced built-in features of VTH, such as chat rooms, offer greater opportunity for self-disclosure for patients with privacy concerns. More importantly, the option to incorporate standard accessibility features, such as Bluetooth technology or screen-reading features, is useful to patients with sensory impairments and physical limitations. It is important for providers to remain aware of these available features and make them accessible to patients to facilitate provision of care via VTH.

The authors are hopeful that their case vignettes will challenge thoughts about who may be a good fit for VTH and expand providers’ consideration of this mode of delivery for a broader array of patients. Their goal is to increase comfort and competence of VTH among both new and well-practiced providers. There are additional resources that may provide further study on case vignettes and to also help providers get “up and running” (please see Campbell, and colleagues¹⁰ and American Telemedicine Association²³). Continued education and training will facilitate greater comfort and competence with this mode of delivery. The authors recommend generating or joining a community of practice of other VTH providers, which will continue to foster increased comfort and confidence with VTH as well as help facilitate the exchange of information among new and established providers.

REFERENCES

1. Lindsay JA, Hudson S, Martin L, et al. Implementing video to home to increase access to evidence-based psychotherapy for rural veterans. *J Technol Behav Sci* 2017;2(3–4):140–8.
2. Fletcher TL, Hogan J, Keegan F, et al. Recent advances in delivering mental health treatment via video to home. *Curr Psychiatry Rep* 2018;20:56.
3. Morland LA, Poizer JM, Williams KE, et al. Home-based clinical video teleconferencing care: clinical consideration and future directions. *Int Rev Psychiatry* 2015; 27(6):504–12.
4. Shore P, Goranson A, Ward MF, et al. Meeting Veterans where they’re @: a VA home-based telemental health (HBTMH) pilot program. *Int J Psychiatry Med* 2014;48(1):5–17.

5. Paris MB, Fazio S, Chan S, et al. Managing psychiatrist-patient relationship in the digital age: a summary review of the impact of technology-enabled care on clinical processes and rapport. *Curr Psychiatry Rep* 2017;19:90.
6. Murdoch JW, Connor-Greene PA. Enhancing therapeutic impact and therapeutic alliance through electronic mail homework assignments. *J Psychother Pract Res* 2000;9:232–7.
7. Sucala M, Schnur J, Constantino MJ, et al. The therapeutic relationship in e-therapy for mental health: a systematic review. *J Med Internet Res* 2012;14(4):e110, p.2.
8. Lozano BE, Birks AH, Kloezeman K, et al. Therapeutic alliance in clinical videoconferencing; optimizing the communication context. In: Tuerk P, Shore P, editors. *Clinical videoconferencing in telehealth: program developments and practice*. New York: Springer Publications; 2014. p. 221–51.
9. Goldstein F, Glueck D. Developing rapport and therapeutic alliance during telemental health sessions with children and adolescents. *J Child Adolesc Psychopharmacol* 2016;26(3):204–11.
10. Campbell LF, Millán F, Martin JN, editors. *A telepsychology casebook: using technology ethically and effectively in your professional practice*. Washington, DC: American Psychological Association; 2018.
11. Yellowlees P, Shore JH. *Telepsychiatry and health technologies: a guide for mental health professionals*. Washington, DC: American Psychiatric Publications; 2018.
12. Shore P, Lu M. Patient safety planning and emergency management. In: Tuerk P, Shore P, editors. *Clinical videoconferencing in telehealth: program developments and practice*. New York: Springer Publications; 2014. p. 167–201.
13. Department of Veterans Affairs. Federal Register 2018;83(92) Friday, May 11, 2018. Rules and regulations. 38 CFR Part 17, RIN 2900-AQ06, “Authority of Health Care Providers to Practice Telehealth.”
14. Choi NG, Marti CN, Bruce ML, et al. Six-month post-intervention depression and disability outcomes of in-home telehealth problem-solving therapy for depressed, low-income homebound older adults. *Depress Anxiety* 2014;31(8):653–61.
15. King VL, Brooner RK, Peirce JM, et al. A randomized trial of web-based videoconferencing for substance abuse counseling. *J Subst Abuse Treat* 2014;46:36–42.
16. Richardson LK, Frueh CB, Grubaugh AL, et al. Current directions in videoconferencing tele-mental health research. *Clin Psychol (New York)* 2010;16(3):323–38.
17. Durland L, Interian A, Pretzer-Aboff I, et al. Effect of telehealth-to-home interventions on quality of life for individuals with depressive and anxiety disorders. *Ment Health Care* 2014;9:12.
18. Corrigan PW, Druss BG, Perlick DA. The impact of mental illness stigma on seeking and participating in mental health care. *Psychol Sci Public Interest* 2014;15(2):37–70.
19. Gros DF, Lancaster CL, Lopez CM, et al. Treatment satisfaction of home-based telehealth exposure for combat-related PTSD in veterans. *J Telemed Telecare* 2018;24(1):51–5.
20. Acierno R, Knapp R, Tuerk P, et al. A non-inferiority trial of prolonged exposure for posttraumatic stress disorder: in person versus home-based telehealth. *Behav Res Ther* 2017;89:57–65.
21. Yuen EK, Gros DF, Price M, et al. Randomized controlled trial of home-based telehealth versus in-person prolonged exposure for combat-related PTSD in Veterans: preliminary results. *J Clin Psychol* 2015;71(6):500–12.

22. Linehan MM. Cognitive behavioral treatment of borderline personality disorder. New York: Guildford Publications; 2018.
23. American Telemedicine Association practice guidelines for video-based online mental health services. 2013. Available at: <http://www.americantelemed.org/resources/standards/ata-standards-guidelines/practice-guidelines-for-video-based-online-mental-health-services>. Accessed February 26, 2019.