A Review of Recent Efforts to Improve Access to Effective Psychotherapies

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This article reviews a sampling of recent efforts to increase access to empirically supported psychotherapies and related interventions. The use of technology to advance the implementation of psychotherapy across diverse contexts is emphasized, and the authors review recent efforts to improve access to psychotherapy using self-guided Internet-based treatments, minimal-contact psychotherapies, and mental health mobile apps. Expanding the reach of traditional psychotherapy through primary care and clinical video telehealth is also discussed. Specific examples are given of recent innovations in the implementation of treatment for posttraumatic stress disorder (PTSD). One PTSD-relevant example per broad area is reviewed in greater detail to demonstrate how diverse approaches can be used to target one problem or disorder across a variety of contexts. Recommendations to aid clinicians in decision making are included, suggesting a stepped-care approach based on patient severity, response to treatment, and available resources.

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Access to evidence-based and cost-effective mental health care has increased over the past two decades, but recent estimates have suggested that more than half of people with mental illness in the United States do not receive any psychiatric or psychological treatment in a given year, and even less receive minimally adequate treatment (1). These disturbing statistics emphasize the importance of working to increase access to mental health care. The most common type of mental health care received in the United States is pharmacotherapy from a primary care provider (2). Although pharmacotherapy is a vital component of the spectrum of care, a recent meta-analysis showed that the majority of patients (around 75%), whether in primary care or specialty care or not seeking treatment, preferred psychological over pharmacological treatment. Moreover, psychotherapy for anxiety disorders and mild to moderate depression, the most common mental health conditions, has been shown to be as effective as medication (in the case of depression) and possibly more effective (in the case of anxiety) than pharmacotherapy (3). Traditionally provided psychotherapy (weekly or biweekly sessions with a highly trained professional) may not be a cost-effective or easily implemented solution for many patients. Additional factors such as mental health stigma and underdiagnosis of mental health conditions may also make traditional psychotherapy inaccessible to many people who might benefit from it. Recent innovations in the implementation of psychotherapy and other behavioral interventions may provide avenues for increased access to effective, low-cost, and safe mental health treatment.

The current issue provides an overview of recent innovations in the provision of psychotherapy and related interventions across multiple modalities. In this article, we provide a brief, noncomprehensive overview of many efforts underway to improve access and implementation across behavioral health. Along with the articles selected for inclusion, we highlight those areas in which technology is being used to improve access and quality of care in psychotherapy. In the current article, we emphasize a variety of different innovations that can aid in the treatment of a single disorder across the spectrum of mental health care, depending on severity, treatment response, and resources. We chose posttraumatic stress disorder (PTSD) as an example of such a disorder and therefore spotlight one innovation in the implementation of PTSD treatment for each broad area reviewed.

INTERNET-BASED AND SELF-GUIDED TREATMENTS

Recent advancements in dissemination research suggest that effective treatment of some psychological complaints may not require significant therapist contact. Two recent meta-analyses of self-guided, Internet- or computer-based cognitive-behavioral therapy (iCBT and cCBT, respectively) demonstrated significantly greater reductions in depressive and anxious symptomatology than waitlist or usual-care control conditions (4, 5). Other reviews of technology-assisted therapies for psychological problems have suggested that primarily or completely self-guided Internet and computerized treatments for depressive, anxiety, and addictive disorders are more effective than no treatment or treatment as usual, particularly for low-severity problems and highly motivated patients (6, 7). A recent meta-analysis on smartphone applications (apps) for the treatment of depression demonstrated a small but significant effect of these

treatments in comparison with active control conditions (8), as did a similar meta-analysis on apps for anxiety (9). However, these treatments are often less effective than those that involve at least some contact with a health care professional. Also, such treatment modalities are often associated with a lower completion rate and poorer compliance than those that involve a therapist, and low compliance has been linked to poorer outcomes (5, 6).

A wide range of websites and apps providing self-guided treatment have been developed and tested in the past 20 years, but not all have been empirically validated or developed by expert providers. To systematically review treatment websites and apps is beyond the scope of this article; therefore, we briefly review a selection of currently available programs supported by research. Two well-studied self-guided online cognitive-behavioral therapy (CBT) programs for depression, anxiety, and general distress are MoodGym (https://moodgym.com.au/) and Beating the Blues (http://www.beatingtheblues.co.uk/). These programs have been shown to result in small reductions in depression and anxiety symptoms, although these effects have not been significant in all studies (10, 11). A recent randomized controlled trial (RCT) showed that people receiving Internet-based CBT for insomnia via a program called SHUTi (Sleep Healthy Using the Internet; http://www.myshuti.com) showed significantly greater improvement in insomnia over one year than those who just received access to online patient education (12). Another open-access CBT program, Joyable (https://joyable.com) has demonstrated large reductions in social anxiety for those who completed a 12-week program, both with and without the help of coach, although those who used a coach were more likely to complete (13). A free website, https://sfstopsmoking.org/, provides an online CBT-based smoking cessation program that has been shown to be effective and has been used by thousands of people internationally (14).

A plethora of smartphone apps claiming efficacy in assessing, managing, and treating mental health conditions are currently available, but they vary greatly in their quality and research support. Because research on mobile mental health is in its infancy, few apps have more than one study supporting their efficacy, but the number of studies is growing. The Intellicare suite apps are an example of apps that use evidence-based strategies to aid users in reducing anxious and depressive symptoms. In a recent study, use of Intellicare with the aid of a coach led to significant reductions in symptomatology and high retention rates (15). Patients and clinicians looking for helpful apps may be aided by visiting the Anxiety and Depression Association of America website (http://www.adaa.org/finding-help/mobile-apps) and PsyberGuide (https://psyberguide.org/app-guide/), both of which provide information on the research support for and usability and overall quality of current mental health apps.

Overall, primarily self-guided cognitive-behavioral interventionsprovided via the Internet or mobile phone can provide an effective low-cost and low-risk first step in a stepped-care approach to psychiatric treatment of many common mental health complaints. Patients who are highly motivated and whose problems are less severe may not need additional treatment, and patients with more severe problems can receive some benefit while waiting for medications to take effect or for specialty care to begin. In their contribution to this special issue, Dr. Cuijpers and colleagues present an in-depth review and discussion of Web-based CBT for depression and anxiety disorders, with special focus on how online interventions can play a critical and effective role in mental health care for depression. Dr. Watkins provides a review of the use of technology in the treatment of alcohol and substance abuse disorders, demonstrating how technology can improve efficiency of care provision to this underserved population.

Few available Internet-based treatments target PTSD, but recent research has suggested that a smartphone app, PTSD Coach, may aid in the management and reduction of PTSD symptoms. PTSD Coach is a free app developed by the U.S. Department of Veterans Affairs (VA) and the U.S. Department of Defense (DoD). The app includes psychoeducation about PTSD, assessment of PTSD symptoms, and evidence-based tools for managing PTSD symptoms and acute distress, including relaxation, stress inoculation, and grounding exercises. Preliminary studies suggested that use of PTSD Coach is associated with a small but not always statistically significant reduction in symptoms among both veterans and civilians (16, 17). However, a recent RCT of PTSD Coach showed that those who were assigned to use the app had small but significant reductions in PTSD symptoms over the course of three months that were significantly greater than those assigned to a waitlist (16). Although these effects are not comparable in size to current evidence-based face-to-face treatments for PTSD, they suggest that PTSD Coach may be an effective way to address PTSD symptoms for those who do not have access to other forms of treatment.

MINIMAL-CONTACT PSYCHOTHERAPIES

Minimal-contact treatments, which combine self-guided Internet or bibliotherapy with the addition of therapist or coach contact (in person or via phone or Internet) for less time (between one and seven hours) than traditional therapy, have been shown to be effective for a number of conditions, and they are relatively low cost (4–7, 18). Minimal-contact treatments have been developed for social anxiety disorder, panic disorder, obsessive-compulsive disorder, generalized anxiety disorder, specific phobias, addictive disorders, and major depressive disorder. They have also been associated with lower dropout than similar treatments without therapist contact. Similar to self-guided Internet-based treatments, minimal-contact treatments can provide an initial or second step in a stepped-care approach to treatment.

Until recently, few studies had examined minimal-contact treatments for PTSD, but two RCTs have suggested that written exposure therapy (WET), a five-session treatment with minimal therapist contact, may be efficacious (19, 20). This treatment begins with an initial session with a therapist that involves psychoeducation about PTSD and the treatment rationale behind WET, which is based on emotional processing theory (21) and expressive writing research (22). This is followed by four weekly sessions in which patients are asked to recount a target trauma by writing about it, focusing on emotions, thoughts, and feelings associated with the event. After the first session, a therapist spends only about 10 minutes per session with the patient, providing directions and answering any questions the patient might have. An initial RCT showed WET to be superior to waitlist for patients with PTSD from a motor vehicle accident (19), and a recent noninferiority trial showed WET to be equivalent in outcome to cognitive processing therapy, with significantly fewer sessions (five vs. 12) and lower dropout (about ~6% vs. about 40 %); 20). These results suggest that PTSD may also be effectively treated with minimal therapist contact, and they suggest avenues for the dissemination of PTSD treatment across a variety of health care settings or over the Internet.

MOVING PSYCHOTHERAPY INTO PRIMARY CARE

Over the past two decades, stakeholders have increasingly begun to integrate behavioral health care into primary and generalist medical care settings. The largest health care service providers and funders in the United States—the Veterans Affairs Healthcare System, the Centers for Medicare and Medicaid Services, Kaiser Permanente, and the Mayo Clinic—have made significant efforts to integrate mental health services into primary care. Although much of this care involves prescription of medication, it also includes short-term psychotherapy and behavioral interventions. Because most common psychiatric conditions are treated in primary care settings (23), providing short-term and accessible psychotherapeutic interventions in these settings is an important avenue for dissemination of mental health treatment and improvement of public health.

A range of short-term psychological interventions have been shown to be effective in treating psychiatric conditions in primary care. A recent meta-analysis (24) showed that CBT for anxiety and depression symptoms was significantly more effective than no treatment and treatment as usual in a primary care setting; these effects were small to medium in size (*d*s=.37–.59). Patients reporting heavy or hazardous drinking who were assigned to complete a Web-based behavioral intervention in primary care have demonstrated significant improvements in drinking behavior over those assigned to treatment as usual in primary care (25, 26). Program evaluation of CBT for insomnia in VA primary care showed that this intervention resulted in significant decreases in insomnia severity, depression, and increases in quality of life (27). In their contribution, Dr. Possemato and colleagues provide a deep dive into the current state of VA integrated primary care mental health treatment.

DoD and VA guidelines have recommended trauma-focused CBTs, such as prolonged exposure and cognitive processing therapy, as first-line treatments for PTSD, but until recently these treatments have only been available in specialty care. Recent research has therefore worked to develop and test a short-term CBT intervention to address this need: prolonged exposure for primary care (28, 29). Prolonged exposure, a cognitive-behavioral treatment based on emotional processing and extinction theories, is a well-studied, efficacious, and highly recommended treatment for PTSD (30). Prolonged exposure for primary care involves approximately four 30-minute weekly appointments with a behavioral health professional integrated into a primary care setting. At the initial treatment session, patients are provided with a workbook titled "Confronting Uncomfortable Memories" to complete at home between appointments. Patients then read and discuss the contents of this workbook with the therapist in subsequent sessions. Patients are also introduced to in vivo behavioral exposure to avoided activities and trauma reminders and asked to practice between sessions. After four to six sessions, the therapist and patient review the patient's progress and decide to conclude or make a referral to specialty mental health care for more intensive treatment.

The first RCT of prolonged exposure for primary care was completed in military primary care settings and compared with a minimal-contact control consisting of five- to 10-minute weekly supportive phone check-ins (29). Prolonged exposure for primary care resulted in medium to large reductions in PTSD symptoms compared with minimal-contact control, and loss of PTSD diagnosis occurred significantly more often in the prolonged exposure for primary care than in the minimal-contact control group. These effects were maintained at six-month follow-up. This study demonstrates that prolonged exposure for primary care is a promising intervention for PTSD in primary care and could contribute to greater access to effective PTSD treatment, particularly for those with mild to moderate PTSD symptoms or those who would not otherwise receive PTSD treatment.

PSYCHOTHERAPY OVER CLINICAL VIDEO TELEHEALTH

Clinical video telehealth is one way to increase access to, and potentially decrease the cost of, providing psychotherapy, particularly for patients who live in rural areas or who have difficulty leaving their home or local area for treatment. Recent advances in videoconferencing technology and increasing access to high-bandwidth Internet service has allowed the use of telemental health to greatly increase in the past 10 years. Telemental health can be clinic based where patients connect with a geographically distant

provider at a clinic that they can easily reach, or it can be home-based care, where patients connect directly from their home. Recent studies and reviews have suggested that outcomes of psychotherapy delivered by means of clinical video telehealth are comparable to those of in-person psychotherapy across a range of problems (31, 32). In their contribution to the special issue, Dr. Peter Tuerk and Dr. Ron Acierno present the state of clinical video telehealth as well as future directions to expand its use.

Perhaps one of the most important recent developments in the dissemination of psychotherapy through telehealth has been the use of clinical video telehealth by the Veterans Health Administration to provide evidence-based psychotherapy (EBP) for military veterans with PTSD. A significant percentage of military veterans with PTSD do not receive adequate PTSD treatment, despite widespread efforts to disseminate EBPs through the Veterans Health Administration (33). Part of this gap in service is attributable to the lack of EBP providers in rural areas and the distance between service members and mental health clinics. Use of clinical video telehealth in the home or at a local clinic is one way to fill this gap. A recent meta-analysis comparing clinical video telehealth with in-person therapies for PTSD found equivalent effects immediately after treatment, although clinical video telehealth outcomes were inferior at three- to six-month follow-up (34). Still, this meta-analysis found outcomes for people receiving clinical video telehealth were superior to those of waitlist controls, suggesting that clinical video telehealth is preferable to no treatment. Predictions that clinical video telehealth for PTSD would retain veterans in treatment more successfully than in-person treatment have generally not been supported (35, 36), but some studies have suggested that telehealth treatments may reach a different population of veterans than traditional outpatient treatment (e.g., more Vietnam and Gulf War era veterans; 36), which could expand the reach of EBPs in the Veterans Health Administration. In addition, a recent RCT demonstrated that rural veterans who were assigned to engage in telemedicine-based collaborative care for PTSD were significantly more likely to receive an EBP for PTSD (cognitive processing therapy) than those assigned to usual care (55% vs. 12%; 37), suggesting that clinical video telehealth may lead to significantly increased access to EBPs in rural areas.

IMPROVING TREATMENT THROUGH ECOLOGICAL MOMENTARY ASSESSMENT AND INTERVENTION

In addition to expanding the provision of traditional interventions using technology, many in the field of mental health have been working to expand the information available to patients and their providers and, in some cases, to provide real-time out-of-office feedback, often via smartphone. Ecological momentary assessment and ecological momentary intervention models are one example of this trend. A recent review of studies investigating ecological momentary interventions for mental health suggested that their use results in small but significant reductions in depression, anxiety, and perceived stress, although effect sizes increased with the addition of therapist or coach contact (38). Moreover, research examining the use of self- and clinician monitoring of symptoms in psychotic disorders and serious mental illnesses suggests that ecological momentary assessment and ecological momentary intervention methods may improve daily living skills, goal achievement, and treatment adherence among those who use them (39, 40). Some studies have also suggested that these methods can reduce both positive and negative symptoms and rehospitalization rates in patients with psychotic disorders, although these results are preliminary (40). Multiple trials have tested the use of ecological momentary assessment methods in the assessment of depressive and manic symptoms and the prediction of mood episodes in bipolar disorder, with mixed results. Ecological momentary assessment has generally been found to be accurate in identifying and assessing depressive symptoms, but less so in assessing manic symptoms (41). Some studies have demonstrated positive effects of ecological momentary assessment methods on mood symptoms, but others have demonstrated potentially iatrogenic effects, perhaps through increasing rumination and, subsequently, depressive symptoms (41). A few recent studies have also tested the effects of daily texting of people at risk for or recovering from substance use disorders, suggesting that such interventions may result in increased readiness to change (42) and better maintenance of treatment gains (43).

We are not aware of specific recent innovations in the areas of ecological momentary assessment or ecological momentary intervention in PTSD treatment, but apps such as PTSD Coach do provide patients with the ability to track symptoms on their own outside the office. In the current issue, Dr. Megan McDevitt-Murphy and her colleagues present a review of progress in ecological momentary assessment and suggest a way forward in which it may provide new models of assessment and care for patients with mental health issues more broadly.

CLINICAL RECOMMENDATIONS

Psychotherapeutic and behavioral interventions range widely in their accessibility and intensity and provide a variety of treatment options for psychiatric disorders. Recent advances in practice and technology provide multiple directions for continued growth to improve access and quality of care for mental health. We recommend implementing a stepped-care approach in treatment involving psychotherapy while considering patient preference and availability and cost of interventions. Table 1 provides an overview of categories of treatment reviewed in this article, in approximate order of suggested use in a stepped-care model. Patients with high motivation are likely to benefit from self-guided, bibliotherapy, Internet, or app-based behavioral interventions and may

TABLE 1. Categories of Advances in Implementation in Psychotherapy and Behavioral Treatment[a]

Intervention Type	Suggested Patients or Targets	Examples and Resources
Self-guided psychotherapies and treatment aids	Patients with symptoms of low severity; patients with limited or no access to other psychotherapy; highly motivated patients; patients waiting for formal psychotherapy to begin. Anxiety, depression, health behavior change (e.g., sleep, smoking); maintenance of and relapse prevention from other approaches.	Internet-based CBT: MoodGym for depression (https://moodgym.com.au/); Beating the Blues for depression (www.beatingtheblues.co.uk/); Sleep Healthy Using the Internet for insomnia (SHUTi; www.myshuti.com); CBT-based smoking cessation (https://sfstopsmoking.org/) Mobile health or smartphone apps: PTSD Coach; Intellicare suite; PsyberGuide's App Guide: (https://psyberguide.org/app-guide/)
Minimal-contact psychotherapies	Patients at risk for dropout or with difficulty committing to longer term treatments; initial treatment attempts. PTSD, anxiety, depression	Written exposure therapy for PTSD; Internet-based treatments with minimal therapist or coach contact (e.g., via https://joyable.com)
Primary care psychotherapy	Patients waiting for specialty care to begin; initial treatment attempts; may be sufficient for simple or circumscribed problems. Depression, anxiety, PTSD, health behavior change, problematic substance use.	Short-term CBT for a variety of problems (insomnia, problem drinking, anxiety); prolonged exposure in primary care
Psychotherapy over clinical video telehealth	Patients with geographic, time, or financial barriers to therapy; patients who have not fully responded to self-guided or minimal-contact psychotherapies. Appropriate for same conditions or targets as traditional psychotherapy; symptoms of moderate to high severity.	Clinical video telehealth in the VA health care system; Anxiety and Depression Association of America list of member telehealth providers by state (https://adaa.org/finding-help/telemental-health/provider_listing)

[a] CBT, cognitive-behavioral therapy; PTSD, posttraumatic stress disorder; VA, U.S. Department of Veterans Affairs.

not require additional treatment. Multiple websites, apps, and books provide such evidence-based interventions at a relatively low cost (see Table 1 for examples), and options are continually increasing. It is important to keep in mind possible downsides of technology-based treatments, such as problematic or addictive technology use or reduced face-to-face human connection; however, no available research has revealed iatrogenic effects to be common. Patients who do not fully respond to self-guided treatments may respond to psychotherapy involving minimal contact (one to seven hours) with a therapist or behavioral coach, which can be completed over the Internet or in a health care setting. Such treatments have been found to be noninferior to traditional psychotherapy for anxiety disorders, PTSD, and low- to moderate-severity depression. Alternatively, patients may be referred to short-term psychotherapy in a primary care setting, which has been shown to be superior to usual care for a number of disorders. Patients who do not respond to lower intensity interventions but who do not have access to weekly in-person therapy may benefit from clinical video telehealth in their home or at a local clinic, because this format has generally led to outcomes equivalent to those of face-to-face psychotherapy. Of course, providers should always take into account patient preference, means, and availability and adjust treatment recommendations accordingly.

CONCLUSION

Psychotherapeutic and behavioral interventions provide a safe, effective, and often low-cost option for mental health care that many patients prefer to pharmacotherapy. Not all patients need traditional weekly psychotherapy with a trained provider, nor do all patients who might benefit from such an approach have access to these interventions. Self-guided treatments via the Internet, mobile apps, or books are an effective alternative for patients with symptoms of mild severity and for those who do not have access to other treatment. The addition of minimal therapist or therapeutic coach contact to self-guided treatments may improve efficacy and retention, and such treatment may sometimes show better retention than traditional therapy. Mobile apps can also be a helpful adjunct to ongoing treatment through ecological momentary assessment or ecological momentary intervention. Psychotherapy in primary care and clinical video telehealth may provide additional access to those who might not otherwise receive therapy. The current issue includes articles by experts in these areas who review these implementation efforts in depth and provide suggestions for clinical application and future implementation and research efforts.

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