

ORIGINAL RESEARCH & CONTRIBUTIONS

Online Cognitive Behavioral Therapy for Depressed Primary Care Patients: A Pilot Feasibility Project

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Abstract

Context: Cognitive behavioral therapy (CBT) is a goal-oriented treatment that guides patients to healthy thoughts and behaviors. Internet-delivered CBT with supportive coaching can be as effective as in-person psychotherapy treatment of depression.

Objective: To test the feasibility of engaging depressed primary care patients not currently receiving psychotherapy and to measure the outcomes of Internet-delivered CBT with supportive coaching.

Design: Pilot feasibility project.

Main Outcome Measures: 1) Uptake rate. 2) Reduction in depressive symptoms (average score on 20-item Hopkins Symptom Checklist) from baseline to 4-month follow-up.

Methods: Medical records data were queried to identify patients experiencing a new episode of depression. Eligible patients were invited via secure messaging (patient and clinician communication using a secure Web site linked to the medical record) to participate in the Internet-delivered CBT program (also known as Thrive), which was algorithm-driven and delivered through didactic segments, interactive tools, and assessments. Patients completed a self-administered online follow-up survey four months after enrollment.

Results: Of 196 eligible patients who were sent an invitation, 39 (20%) enrolled in the Internet-delivered CBT program. At follow-up, enrolled patients experienced a clinically significant decrease (average = 46%) in depressive symptoms. Suicidal thoughts also decreased both overall and by severity.

Conclusions: Seamless, scalable integration of Internet-delivered CBT into health care systems is feasible. The 20% uptake rate suggests that future work should focus on strategies to increase the initial response rate. One promising direction is the addition of “human touch” to the secure message invitation. Depression outcomes suggest promise for systemwide implementation of Internet-delivered CBT programs.

Introduction

Internet-based interventions have the potential to be seamlessly integrated into current health care systems to improve depression care. This would be accomplished by harnessing existing

resources, such as electronic medical records (EMR), for screening and documentation of treatment. It is now possible in many health care settings to use data routinely captured in the medical record to automatically identify depressed patients and to monitor their symptoms over time using depression diagnosis codes, prescription fills of antidepressant medications, and depression screening instruments (eg, Patient Health Questionnaire [PHQ-9]).

Successful Internet-based interventions for depression and anxiety have been implemented,^{1,2} and the most advanced and effective programs involve an empirically supported treatment, such as cognitive behavioral therapy (CBT).^{3,4} Internet-delivered CBT has been successfully implemented across Australia; effective programs became part of a nationally available online program through the country's universal health coverage,⁵⁻⁷ and adherence has been tracked at 60%.⁸ A similar program was successfully launched in the United Kingdom, and the intervention had similar outcomes, particularly in adherence, cost-effectiveness, efficacy in primary care, and providing psychological services to underserved populations.⁹⁻¹² In meta-analytic reviews, CBT has been shown to have longer posttreatment benefit than does antidepressant treatment; only 30% of CBT recipients vs 60% of patients receiving antidepressant treatment experience a relapse of depression at least 1 year after discontinuation of treatment.¹³

For patients, Internet-delivered CBT provides increased treatment options and psychobehavioral education for those unable to access or afford face-to-face services, those not interested in face-to-face services, or both. For clinicians, Internet-delivered CBT also offers a mental health treatment option for geographically remote patients without transportation and/or for whom in-clinic appointments are difficult because of symptoms, financial constraints, or other barriers.¹⁴

Supported Versus Unsupported Programs

Currently, Internet-delivered CBT is administered by two methods: unsupported programs delivered entirely by computer, and supported programs with a coach or “care manager.” The care manager does not provide psychotherapy but monitors, encourages, and reinforces use of the online program through brief telephone or e-mail contacts. Unsupported programs provide more patient autonomy and individual privacy but have

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higher dropout rates and limited clinical benefit compared with supported programs.¹⁵ Supported programs have relatively high completion rates and substantial clinical benefit, often rivaling that of face-to-face treatment.^{5,15,16} Although supported programs require skilled staff and are associated with higher costs than unsupported programs, costs remain much lower than those of traditional mental health services.

Benefits and Barriers of Implementation

Internet-delivered CBT has many potential benefits for clinicians and health care organizations, including the potential to serve more patients at a lower cost than with traditional psychotherapy. Despite the potential benefits, health care organizations have not widely used Internet-delivered CBT in population-based management of depression.

Barriers to implementing Internet-delivered CBT programs at health care delivery organizations include the time and financial resources necessary to select and implement an appropriate Internet-delivered CBT program for the organization. In addition, most Internet-delivered CBT programs are not designed to interface with existing EMR systems. Despite general evidence that Internet-delivered CBT programs are cost-effective,¹⁷ it is difficult to estimate cost-effectiveness of Internet-delivered CBT given the upfront expenses of selecting the appropriate product, integrating it into existing systems, and reorganizing health care delivery teams.¹⁸

Our research evaluated the impact of an Internet-delivered CBT through a pilot feasibility project involving depressed primary care patients. The goal of our research was to measure uptake by primary care patients of an Internet-delivered CBT program. We describe feasibility testing of Internet-delivered CBT in a health care delivery organization, as well as the depression-related outcomes of the intervention.

Methods

Setting

Group Health Cooperative (Group Health) is a large regional health care delivery system in Washington state, which serves more than 610,000 patients. More than 70% of members receive comprehensive care in Group Health-owned facilities, including 25 primary care or family medical centers and 7 behavioral health clinics, which are responsible for coordinating nonemergency mental health services and chemical dependency treatment. Previous research studies at Group Health have demonstrated success implementing Internet-based management strategies for patients with depression and bipolar disorder,^{19,20} but Group Health does not currently use an Internet-delivered CBT program or any other specific Internet-based intervention for depression. Group Health leadership provided support to implement an Internet-delivered CBT pilot feasibility project in our primary care delivery system (not a research activity), as well as to support our research evaluation of the project.

Program Selection

The commercial Internet-delivered CBT program selected was Thrive, which was offered free of charge for the pilot project by

Waypoint Health Innovations (Madison, WI). Thrive is similar to programs used in successful trials of Internet-delivered CBT; the Thrive interface is interactive and its curriculum is adaptive to patient input.^{5,15,16} Thrive includes three CBT-based modules that are based on behavioral activation, cognitive restructuring, and social skills training techniques.²¹ Thrive recommends a starting module aligned with patient concerns and interests and then prompts movement to other modules on the basis of progress. Thrive is delivered through didactic segments (text and video), interactive tools (eg, tools for selecting and scheduling pleasant activities, identifying and correcting negative thoughts, and recording and playing back the patient's voice), assessments, offline homework assignments, and branching logic. Although the patient is asked to make some explicit choices about how to move forward, the path through therapy is primarily algorithm-driven. Data elements that determine the user's path include PHQ-9 scores, patient-reported success in implementing CBT techniques, and patient-reported lifestyle characteristics. Thrive includes a clinician's portal that allows a coach or other authorized clinicians to view a patient's activity and assessment scores.

The Coach

The coach's role in the pilot feasibility project was to invite patients to participate in the Thrive program and to encourage patients to initiate the program and continue participation throughout the program, but not to provide psychotherapy. The coach communicated with patients through Group Health's secure messaging platform and attempted to make contact at least once a week for eight weeks. Coaching required that the clinician be highly familiar with the Internet-delivered CBT intervention and tailor the secure messages so that they addressed the following: 1) the motivation level of the patient (based on how often s/he responded to the coach and how often and to what degree s/he used the Internet-delivered CBT program), 2) the level of depression of the patient (based on PHQ-9 scores collected as part of the clinical intervention), 3) the progress the patient had made in the program (how many page views, how many and which practice assignments and videos the patient had reviewed), and 4) any specific problems or strengths that the patient had reported via secure messaging.

The coach was a licensed mental health clinician with 17 years' experience in the Group Health behavioral health system. She had no previous experience delivering Internet-delivered CBT, and she worked with the first author (UW) to develop intervention protocols and expectations. The coach was required to review the entire Internet-delivered CBT program before the project, check for messages from participants on a daily basis, and send at least 1 message per week engaging the participant in the intervention. During the course of the study, she met for 1 hour or more weekly for supervision and consultation with UW.

Implementation Process

Patient Identification and Invitation

The target population for the pilot feasibility project was primary care patients experiencing a new episode of depression (had not received a diagnosis of depression in the past 6 months) and who were not already receiving treatment of

Currently, Internet-delivered CBT is administered by two methods: unsupported programs delivered entirely by computer, and supported programs with a coach or "care manager."

depression (medication or psychotherapy). Programmers identified potentially eligible patients using diagnosis codes to query EMR data over a rolling enrollment period. Potentially eligible patients were aged 18 to 90 years, had a depression diagnosis code at a primary care visit, and had filled a new antidepressant prescription. The fill of a medication indicated that the patient was receiving care for depression in a primary care setting.

Patients were then excluded through a manual chart review if they had evidence of chronic or recurrent depression, had a diagnosis of dementia, were not currently receiving care from Group Health clinicians, and/or were not using secure messaging. Eligible patients were sent a secure message from the Internet-delivered CBT coach to participate in the Thrive program. Patients interested in Internet-delivered CBT proceeded to the online consent form. Patients were invited to participate in Thrive in three groups in successive order: 1) invitation via secure message only; 2) invitation via secure message and postal letter; and 3) invitation via secure message, postal letter, and telephone (or voicemail).

Data Collection and Evaluation

The research evaluation of the Internet-delivered CBT pilot feasibility program was approved by the Group Health institutional review board, and online consent was obtained from all participants. This project was not a clinical trial and thus was not registered as such. This research evaluation is an example of pragmatic research conducted in a health care setting. Baseline and follow-up data were collected using DatStat Illume (DatStat, Seattle, WA), a full-service, user-friendly Internet data collection and management package with integrated security features. Participants received a secure message via a hyperlink with embedded identification to the online questionnaires at baseline enrollment and four months after enrollment. Participants who clicked the link were authenticated by the DatStat program using a participant list (ie, only invited participants were able to complete the survey).

Intervention uptake was measured descriptively, summarizing the percentage of patients who continued at each contact point (opened the invitation message, clicked the link, etc), as well as the number of times participants logged into the Thrive site and contacted the program coach. We also summarized age, sex, and race and ethnicity of Internet-delivered CBT participants.

Our primary outcome for depression symptoms was the average score on the 20-item Hopkins Symptom Checklist score.²²

We chose to use this checklist over the PHQ-9 because patients receive the PHQ-9 in our health care setting as part of standard depression care, and we did not want to incorporate practice effects or confuse patients that the research assessment was part of their treatment. The Symptom Checklist-20 is a measure of primary symptom dimensions with a range of 0 to 4.0, for which a score of 1.75 or greater is indicative of major depression. Patients rated how bothersome their depression symptoms had been over the past 2 weeks, choosing from 0 indicating not at all, 1 = a little bit, 2 = moderately, 3 = quite a bit, and 4 = extremely.

To evaluate whether patients receiving the intervention experienced clinically significant changes in depression symptoms, we developed 2 categorical variables. First, we classified patients as depressed if they had a Symptom Checklist-20 score of 1.75 and above (a generally accepted threshold for major depression). Second, we determined the percentage of patients who experienced a 50% or greater reduction in depression scores from baseline to 4-month follow-up. The depression item, "Feeling lonely or blue," from the Symptom Checklist-20 was used to contextualize response to the Internet-delivered CBT intervention. Furthermore, to evaluate suicidal patients in the context of the Internet-delivered CBT intervention, Item 13 of the Symptom Checklist-20, "Thoughts of ending your life," was reported. If the participant endorsed 1 of the 2 highest ratings, "quite a bit" or "extremely," study staff attempted to contact the patient and conduct a suicide risk assessment with the individual within 1 business day. Seven suicide risk assessments were conducted at baseline, and 2 were conducted at follow-up.

Patients also were assessed for disability they had experienced in the previous 30 days, specifically the degree to which the disability interfered with daily activities. This was measured by the number of days patients had "cut down" on daily activities and the number of days patients had not completed daily activities at all.

Results

Participants

The feasibility project identified 280 Group Health patients as potential candidates for our Internet-delivered CBT program using EMR over a rolling enrollment period (Figure 1, Table 1). Overlapping exclusions determined by visual review of medical records were as follows: not filling the antidepressant prescrip-

Step in uptake process	n	Percentage of screened patients	Percentage of patients sent secure message	Percentage of patients who opened secure message	Percentage of patients who clicked through	Percentage of patients who consented to intervention
Screened	280	—	—	—	—	—
Eligible and Sent SM	196	70	—	—	—	—
Opened SM	160	57	82	—	—	—
Clicked through SM	70	25	36	44	—	—
Agreed to Internet-delivered CBT	39	14	20	24	56	—
Consented to research evaluation study	37	13	19	23	53	95

CBT = cognitive behavioral therapy; SM = secure message; dash = not applicable.

tion (62 patients, 22%), seeing a Behavioral Health clinician in the 90 days before depression diagnosis (38 patients, 14%), antidepressant prescription in the 180 days before depression diagnosis (38 patients, 14%), not being set up for e-mail notification through the Web site www.MyGroupHealth.org (5 patients, 2%), not being an active Group Health member (4, 1%), or age older than 90 years or a diagnosis of dementia (2 patients, ~1%). After exclusions, 196 patients (70%) were eligible for the Internet-delivered CBT program.

Eighty-two percent ($n = 160$) of 196 invited opened the secure message offering an online CBT program, and 36% ($n = 70$) of the 196 invited patients “clicked through”; that is, they used a secure link embedded in the e-mail to visit the intervention Web site. At the Web site, 20% of those invited ($n = 39$) agreed to receive the Internet-delivered CBT program. Most of these 39 patients ($n = 37$) agreed to participate in the research evaluation, including 7 men and 30 women; most were white (32 patients, 86%) and identified as non-Hispanic ethnicity (35 patients, 95%). Thirty-one patients tried Internet-delivered CBT and participated in the follow-up research survey; 6 patients who enrolled in the research evaluation never logged into the Thrive program.

The group of participants who received a secure message, postal letter, and phone call clicked through and consented to the research evaluation at a higher rate than the other two groups did (Table 2). Nearly three times as many people who were contacted in these three different ways reached the consent stage as did people who were contacted by secure messaging alone.

Thrive Participation and Contact with the Coach

Thirty-one patients logged into Thrive at least once. Their mean age was approximately 52 years, mean number of log ins was 7.3, and mean number of page views was 109. Older patients

tended to log in more (0.34 correlation between log ins and age). The Thrive coach sent weekly or biweekly secure messages that reviewed the patients’ recent activity in Thrive, suggested goals for future activity in Thrive, and offered encouragement. For every 2 secure messages our coach sent (beyond the invitation and the welcome message), she received approximately 1 secure message in return. For the 37 participants in the research evaluation, the coach sent a mean of 6 messages to each patient and received a mean of 2 messages in return.

Depression Outcomes

The baseline mean score on the Symptom Checklist-20 was 2.2, exceeding the threshold for probable severe depression of 1.75 (Table 3). By this measure, two-thirds of patients were rated as having severe depression, and the remainder reported mild to moderate levels of depression. At baseline, 59% of 37 patients ($n = 22$) reported having had thoughts of death or dying in the past 2 weeks; for 27% ($n = 10$), these thoughts occurred quite a bit or extremely often. Suicidal thoughts (“thoughts of ending your life”) in the past 2 weeks were reported by 38% ($n = 14$), with 24% ($n = 9$) describing those thoughts as moderate to extreme (Table 3).

At follow-up, patients receiving Internet-delivered CBT experienced a significant decrease in depression scores, with an average of 46% reduction in depression symptoms (as measured by a drop in the Symptom Checklist-20 score from 2.2 to 1.2; Table 3). The number of patients meeting the Symptom Checklist-20 threshold for severe depression had decreased by 57% (from 21 patients to 9). Overall, patients’ rating of “feeling lonely or blue” (one of the criteria for major depression) over the past 2 weeks went from an average rating of “quite a bit” to “a little bit.”

Although not necessarily indicative of depression-related disability, the mean number of days in the past month that patients reported that they had to cut down on their activities because of disability decreased from 8 to 5 days, whereas the mean number of days they were unable to complete their activities remained the same (4 of the past 30 days). At follow-up, suicidal thoughts had decreased, with 23% of 31 patients ($n = 7$) reporting any “thoughts of ending your life” in the past 2 weeks, and 10% ($n = 3$) describing those thoughts as moderate to extreme (Table 3).

Frequencies of secure coach-patient messaging were similar among all participants, with clinically meaningful reductions in depression symptoms. Among those who experienced a 50% or greater reduction in depression symptoms, the number of secure messages sent by the coach (mean = 6.8, standard deviation [SD] = 3.5) and the patient (mean = 2.6, SD = 2) were similar to those who did not experience such reductions (coach, mean = 6.9, SD = 3.7; patient, mean = 2.5, SD = 2.7).

Frequencies of secure messaging between the coach and the patient were also similar among those who were still considered depressed and those not considered depressed at follow-up. For participants not considered clinically depressed (Symptom Checklist-20 score < 1.75) at follow-up, the number of secure messages sent by the coach (mean = 7.2, SD = 3.4) and the patient (mean = 2.8, SD = 2.3) were similar to those sent between coaches and patients still considered clinically depressed (coach, mean = 6.0, SD = 3.8; patient, mean = 2.0, SD = 2.8).

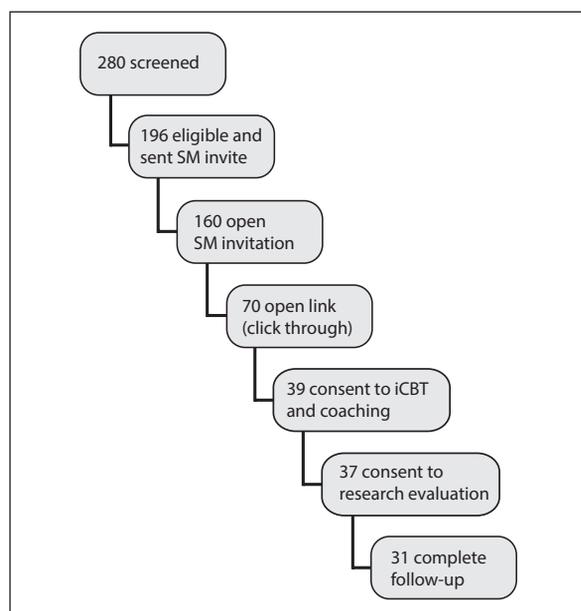


Figure 1. Project flowchart.

iCBT = Internet-delivered cognitive behavioral therapy; SM = secure message.

Discussion

Results indicate that our methods for identifying potentially eligible patients and recruitment via secure messaging are feasible and can be used to recruit our target population—patients who are depressed but not seeking formal treatment. Although recruited patients were not seeking behavioral health treatment, 70% opened a secure message offering the Internet-delivered CBT program. Ultimately, only 19% of those potentially eligible patients enrolled; but the people starting the Internet-delivered CBT program had, on average, moderate to severe depression and were not receiving behavioral treatment at the time. Patients who enrolled in the program improved, in both their degree of depression and their level of suicidality.

Our overall uptake rate of 19% varied from 30% of those contacted by secure message, mail, and telephone vs 12% by secure message only. These results indicate that an additional “human touch” over and above a secure message increases the initiation rate. Mail and telephone contacts would also increase costs of an Internet-delivered CBT program implemented on a wide scale, but the cost may be negligible in comparison to the cost of untreated depression and suicidality. The cost of depression has been estimated at \$83 billion per year; in 2000, estimates were \$26.1 billion for direct medical costs alone and an additional \$5.4 billion for suicide-related mortality costs.²³

We demonstrated that at Group Health, secure e-mail messaging successfully delivered a low-intensity psychosocial intervention consistent with our previous work demonstrating the success of secure messaging for medication care management.¹⁹ Although still in limited use in the US health care system, Internet interventions that deliver adaptations of empirically supported in-person therapy such as CBT and motivational interviewing have demonstrated advantages over usual care and, in some cases, are comparable to in-person treatment.^{18,24-26} Internet interventions, with and without coaching, are scalable for populations in ways that in-person interventions are not.²⁷ For health care delivery organizations, Internet-delivered CBT has the potential to extend the reach of mental health services with minimal personnel requirements as an alternative or an adjunct to antidepressant treatment in primary care. Additionally, as Internet-delivered CBT programs evolve and as the general population continues to shift more activities to online and mobile services, it is possible that adherence will be better or remain constant with less direct human contact hours.

Internet-delivered CBT can also serve to enhance care within behavioral health service delivery systems. With sufficient patient tracking systems in place, an Internet-delivered CBT coach can respond to and manage more patients than can a mental health therapist providing in-person CBT for depression. Behavioral

Table 2. Uptake of intervention with additional outreach

Method of contact with patient	n	Number of people who clicked through	Click-through rate, %	Number of people who consented	Consent rate, %
SM only	68	18	26	8	12
SM + postal letter	84	28	33	16	19
SM + postal letter + phone	44	24	55	13	30
Total	196	70	36	37	19

SM = secure message; + = and.

Table 3. Depression and suicide outcomes for recipients of intervention

Outcome	Baseline, n = 37	Follow-up, n = 31
Depression		
Symptom Checklist-20, average score overall (SD)	2.2 (0.9)	1.2 (1.0)
Clinically depressed (≥ 1.75 score), no. (%)	21 (68)	9 (29)
Reduction in depression $\geq 50\%$, no. (%)	—	16 (52)
“Feeling lonely or blue,” average score on specific checklist item (SD)	2.7 (1.2)	1.3 (1.2)
Suicide		
“Thoughts of death or dying,” ^a average score (SD)	1.7 (1.5)	0.7 (1.2)
Not at all (%)	38	65
Any thoughts (%)	59	35
Quite a bit or extremely (%)	27	13
“Thoughts of ending your life,” ^a average score (SD)	1.0 (1.4)	0.4 (1.0)
Not at all (%)	59	77
Any thoughts (%)	38	23
Moderately to extremely (%)	24	10
Past 30 days disabled		
Days unable to carry out usual activities because of health, mean (SD)	4 (8)	4 (9)
Days cut down on usual activities because of health, mean (SD)	8 (9)	5 (7)

^a One participant did not answer these questions at baseline. SD = standard deviation; dash = not applicable.

... 70% opened a secure message offering the Internet-delivered CBT program. ... only 19% of those ... people ... had, on average, moderate to severe depression

health service delivery systems often struggle to triage patients. The most at-risk individuals need to receive in-person treatment first, and Internet-delivered CBT provides a triage method option for those seeking behavioral health treatment but who are in the mild to moderate depression range. Those with severe depression receive treatment at the front of the line, but patients with moderately severe or severe depression also receive immediate access to care. Furthermore, Internet-delivered CBT may augment traditional talk therapy as well as pharmacotherapy, providing a support mechanism between appointments with clinicians.

Because the Internet-delivered CBT program includes the educational content that would otherwise be delivered in person, the Internet-delivered CBT coach can focus on improving motivation and reinforcing behaviors recommended as part of Internet-delivered CBT treatment (such as practice with strategies in daily life). This also means that the content—the didactic component of the treatment—is standardized and not dependent on skill level or adherence of the clinician to CBT principles. This can be accomplished without a reduction in care quality. In Australia, no significant differences in outcomes were found when a supported Internet-delivered CBT program administered by a trained

nontherapist was compared with treatment by a licensed therapist.³ This finding suggests that care managers do not need an advanced clinical degree, lowering potential personnel costs.

In addition, Internet-delivered CBT standardization is also attractive to researchers and those conducting quality-assurance checks. Therapist adherence and fidelity to in-person CBT treatment is difficult and time-intensive to track and monitor. We know that highly structured manual-based CBT is effective, but often that content is lost in the translation from research to clinical practice and its unique demands. Internet-delivered CBT provides standardized content that always delivers the treatment in an adherent manner.

Internet-delivered CBT also offers benefits even for clinicians with patients who do not experience symptom improvement, particularly when patients are inactive or are active but do not experience reduced PHQ-9 scores. Internet-delivered CBT coaches and/or health care clinicians with permission to view Internet-delivered CBT activities are able to monitor patient activity and progress in Internet-delivered CBT and to modify treatment when necessary. In contrast, adherence to and benefit from pharmacotherapy and human-delivered CBT is often more difficult to assess.

Internet-delivered CBT also provides an opportunity for rapid, iterative testing and improvement, potentially providing opportunity for patients to participate in the design of this care model. This is because programs can be measured and changed easily (relative to other care models). It is also possible to deliver Internet-delivered CBT through multiple electronic modes, such as mobile applications on tablet computers and smart phones. Recent research indicates Internet-delivered CBT for the treatment of depression remained efficacious delivered via mobile application vs a fixed computer.²⁸

There were a number of limitations to this project—mainly the small sample size and lack of a control group—which limit the generalizability of our results. A control group would provide the advantage of ensuring the depression outcomes observed could be explained by the treatment. Additional limitations may be that the patients were all part of a nonprofit health care system, and patients who participated (ie, those who completed the multistaged process to agree to Internet-delivered CBT treatment and consent for research) were more motivated than those who did not. Further research would be beneficial to validate findings that resulted from this study.

In this pilot feasibility project, we demonstrated that important barriers can be overcome, particularly that Internet-delivered CBT programs can be integrated into existing EMR and patient communication technology. The cost of wide-scale implementation of this research remains a barrier, and our small research sample size did not allow us to estimate the cost-effectiveness of this technology. However, despite the small number of research participants, we were able to demonstrate the potential pragmatic utility of rolling out an existing technology with proven benefit and limited need for additional personnel and training resources.

Conclusion

We conclude that Internet-delivered CBT is a promising option for addressing the need for integrating behavioral health services into primary care. We developed steps to create a seamless and scalable integration of this online service into primary care using minimal financial and staff resources. We propose that the next steps would be to strategically test methods to further reduce barriers for patients to initiate Internet-delivered CBT (eg, requiring multiple steps and research consent before contact), and systematically making Internet-delivered CBT technology available to larger numbers of patients to estimate cost-effectiveness, suicidality, and depression outcomes. Many patients will likely prefer and/or be more appropriate for in-person psychotherapy, but Internet-delivered CBT has the potential to help improve depression care as an option to treat patients who are not able to receive in-person treatment and as an adjunct to pharmacotherapy and in-person psychotherapy. ♦

Disclosure Statement

The author(s) have no conflicts of interest to disclose.

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Depression

It is a sort of waking dream, which, though a person be otherwise in sound health, makes him feel symptoms of every disease; and, though innocent, yet fills his mind with the blackest horror of guilt.

— *Commentaries on the History and Cure of Disease*, William Heberden, 1710-1801,
English physician and fellow of the Royal College of Physicians