INTRODUCTION

As part of Cambridge Health Alliance’s (CHA) efforts to advance primary care and behavioral health integration, the identification of emerging eHealth tools and web-based resources can support patient education, engagement and treatment for behavioral health needs. Emerging technologies expand access to effective services and reliable information, educate patients about behavioral health conditions and treatments, empower patients to pursue customized self-help and recovery options, provide a new communication and tracking medium for providers and patients, and can provide safe and confidential peer support.

In FY2015-2016, CHA conducted a systematic, patient-informed evaluation and pilot in order to identify reliable, trustworthy, accessible and engaging tools which are appropriate for use in the primary care setting.

METHODS

CHA established a multidisciplinary evaluation team which included patient advisors, and conducted a structured evaluation of 38 pre-identified tools in four categories (information and advice, computerized self-help, online peer support and mobile health applications). Based on findings, CHA determined to move forward with 16 identified tools. Six behavioral health integrated team members from primary care centers located within Somerville, MA and Boston Metro North piloted the tools with 56 patients by incorporating them into existing care activities. Patients were introduced to mobile applications and interactive information and advice websites targeting specific health-related conditions including depression, anxiety, stress, alcohol use, and smoking cessation.

RESULTS

Self-help tools were introduced to 56 patients in total. Patients in the pilot ranged from age 18-70 years old, and 66.1% were female. Patients used the tools most frequently to help manage anxiety (53.6%) and depression (35.7%), and 23.2% of participants used the tools for multiple identified reasons. The most frequently utilized tools were Breathe2Relax (42.9%) and SAM (42.9%). 35 patients (60.7%) provided feedback on their usage of the tools, and of these 23 (65.7%) found the tools to be helpful, 4 patients (11.4%) stated that they did not use the tools, 3 patients (8.6%) were unable to use the tools due to equipment limitations, and 3 patients (8.6%) reported that they did not find the tools helpful.

In general, findings from evaluation and pilot indicated that tools were most likely to be effective when explained, demonstrated, and related to patient needs. It was important for the tool to be accessible according to language, ability, literacy, interest level, patient readiness to engage with the material, and available technology, and for privacy and security risks to be explained. Patients were more likely to use tools that were visually pleasing, easy to navigate, and directly aligned with established treatment goals.

CONCLUSIONS

As a result of the evaluation and pilot, CHA approved a “toolkit” of 16 resources, and designed a process led by integrated mental health staff that merges these tools into key components of patient care including depression and anxiety follow-up, care planning, and behavioral activation. Overall, the findings suggest that technology-based mental health resources can serve as useful tools for enhancing patient self-management support and empowerment, and that they are well-aligned with therapeutic approaches used in models for Primary Care Mental Health Integration. Further work is needed to develop tools in multiple languages and literacy levels.
Patient Self-Management Support: Evaluating Technology-Based Mental Health Resources in Primary Care
Emily Benedetto, MSW, LCSW and Liza Hoffman, MSW, LCSW
Cambridge Health Alliance Department of Primary Care

PROJECT HIGHLIGHTS

**Project Timeline**

FY15
- Researched Evidence-Base
- Draft listing of Tools in 4 Categories
- Development of Evaluation Criteria

FY16
- Established Evaluation Workgroup
- Evaluated Tools with Patient Input (34 contributors)
- Pilot of Tools (Integrated MH in Phase I sites)

FY17
- Distribution in Phase I
- Distribution in Phase II

**Key Findings**

- Patients focus on most relevant section (on average of 3 clicks)
- Can enhance clinic understanding of Stepped Model
- Can serve as training resources for staff
- Aligned with Clinical Care
- Comfort with technology
- Important to put tools in context for patient

**Highly Aligned with Clinical Care**
- Patient education
- Stepped Model of Care
- Team-Based Care
- Behavioral health screening
- Behavioral health monitoring
- Motivational interviewing
- Behavioral Activation
- Cognitive Behavioral Therapy
- Care Plans
- Groups (Insomnia, PC Mindfulness)
- Tobacco Screening and Cessation
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PROJECT HIGHLIGHTS

Self Help in Primary Care
“There’s an App for that.”

Patients 18+ may benefit from self help tools like mobile apps or websites.

The Tech Enabled Tools Work Group @ CHA, has compiled a list of evidence-based, patient approved apps and websites that offer help with:

- Stress and Anxiety
- Depression and General Mood
- Smoking
- Mindfulness and Meditation

Ask Liza to advise your patient on what tool might work best.

Pilot/Care Steps

1) Warm Handoff to Care Partner
2) Provide clinical basis for recommendation, connecting to therapy and patient goals
3) Care partner makes assessment of interest and ability
4) Discussion of privacy, risk/benefit issues
5) Product download
6) Product demonstration/exercise
7) Integration into Care Plan
8) Plan for next session
9) Collecting feedback

Using Smartphone Applications in Primary Care

It's important to us to offer the best care we can, when people and families come to our clinic. When you go home, it's important that you know what you need for your health. For people who need extra help with mood, stress or other issues, there are online tools (websites, computer programs and smartphone applications or apps) that you can use at home. We have carefully tested each tool, to see if they are a good fit for our patients.

Your provider, ________, thinks that a smartphone App, ________, may be helpful for the issues you are working on. ________, Your provider will explain how it can help you, and show you how to use it. If you are interested in trying out the App, you can choose to download and use it on your personal phone. If you aren't interested, or don't think an App will be helpful, that's okay - you can always let us know.

If you choose to download and try out the tool, your provider will check in with you during your next visit or phone call to ask how this tool is working for you. Remember that your provider will not be able to see the information you enter into the app, and it is your responsibility to tell your provider about problems with your health and well-being. Your feedback will help us learn whether a smartphone App can support the care you receive at CHA.

You will also help CHA learn whether to recommend this tool to other patients.

Note: Cambridge Health Alliance does not partner with any mobile health applications or benefit financially from the use of smartphone Apps by patients or their families.

About Your Privacy:

Cambridge Health Alliance needs to protect the personal health information that you share with us. We have worked hard to choose the right apps, but can’t guarantee that the app will protect your personal information in the same way that we would. It’s important to us that you understand your information is safe when you use apps, or using your smartphone.

Tips for being safe online:

- Always read every privacy notice before downloading an app. Some apps share your personal information with advertisers or third parties.
- For a personal, provide or offer help on your phone. Check your smartphone’s settings for ways to lock your phone.
- Cambridge Health Alliance does not claim ownership for any information collected or lost by a smartphone or other app.
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Key Features: Tracking

- **Mood Tools**
  - Breathe2Relax
  - Mood Tools
  - T2 Mood Tracker

- **SAM:** Study the patterns in your anxiety

- **Available for most Apps**
- **Under evaluation for formal usage**
CHA conducted research on mobile mental health applications in order to identify tools that: had a reputable source; used evidence based methodologies (including Cognitive Behavioral Therapy, Motivational Interviewing, Behavioral Activation and Mindfulness); had acceptable privacy and security settings; and were free. Research included review of relevant academic institutes, websites and journals, and contact with leading researchers. Based on this research CHA confirmed its listing of tools and approach to systematic evaluation. A summary of research conducted is outlined below.

**References**

American Psychological Association
Anxiety and Depression Association of America
Center for Technology and Behavioral Health
Dartmouth College MHealth for Mental Health Program
iMedical Apps
Journal of the American Medical Informatics Association
Journal of Medical Internet Research
Journal of mHealth and uHealth
NIH Clinical Trials
Northwestern University Center for Behavioral Intervention Technology
U.S. Department of Defense National Center for Telehealth and Technology
U.S. Department of Veterans Affairs

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**Bibliography:**