

USE OF TECHNOLOGY TO SUPPORT ACCESS, SELF- MANAGEMENT AND CARE PROCESS

Alicia Heapy, PhD

Yale University

Pain Research Informatics, Multimorbidities, and
Education (PRIME) Center of Innovation

VA Connecticut Healthcare System

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- ▶ This presentation does not reflect official policy or positions of the Department of Veterans Affairs

DISCLOSURES

- ▶ Focus on
 - ▶ Chronic pain
 - ▶ Adults
 - ▶ Psychological/behavioral interventions
 - ▶ Themes around technology as a method of delivering self-management

SETTING THE STAGE

- ▶ Increase access to providers
- ▶ Address travel and schedule barriers
- ▶ Reduce patient burden
- ▶ Reduce stigma

WHY USE TECHNOLOGY TO DELIVER
CARE?

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- ▶ Internet
- ▶ SMS/text
- ▶ Interactive voice response (IVR)
- ▶ Mobile apps
- ▶ Wearable devices
- ▶ Telemedicine-2 way communication voice/visual
- ▶ Machine learning/Artificial intelligence
- ▶ Virtual reality
- ▶ Social avatars

DIVERSE TECHNOLOGIES

- ▶ Adaptations of theory and evidence-based interventions
 - ▶ Psychological/behavioral, exercise/physical activity
- ▶ Treatment components
 - ▶ Self-monitoring/diaries, goal setting, social support, skill acquisition, education, reminders, assessment, patient/provider communication
- ▶ Level of therapist interaction
 - ▶ Self-guided, asynchronous, synchronous

DIVERSE INTERVENTIONS

- ▶ Promising findings but limitations in quality and comparability prevent answering questions³
 - ▶ What is the effectiveness of these interventions relative to in-person care
 - ▶ Which technologies are best
 - ▶ Which treatments or treatment components are most important/effective
 - ▶ What level of therapist contact is necessary

EVIDENCE

¹Psychological therapies (internet-delivered) for the management of chronic pain in adults. Eccleston et al. 2014, Cochrane Database of Systematic Reviews; Integration of mobile health technology in the treatment of chronic pain: A review. ²Sundararaman et al, 2017 *Chronic and Interventional Pain*, 42, 488-498; ³McGuire et al (2017). Translating e-pain research into patient care, *Pain*, 158, 190-193.

- ▶ Higher quality studies
- ▶ Increase comparability across studies
- ▶ Focus on interventions with theoretical or evidence base
- ▶ Examine cost of treatments
- ▶ Determine role of therapist contact
- ▶ Include clinical experts and researchers in development
- ▶ Develop or adapt treatments for special/underserved populations

RECOMMENDATIONS¹⁻⁴

¹Eccleston et al. (2014) Psychological therapies (internet-delivered) for the management of chronic pain in adults. Cochrane Database of Systematic Reviews; ²Sundararaman et al, (2017) Integration of mobile health technology in the treatment of chronic pain: A review. *Chronic and Interventional Pain*, 42, 488-498; ³McGuire et al. (2017). Translating e-pain research into patient care, *Pain*, 158, 190-193. ⁴Wethington et al. (2018) Establishing a research agenda on mobile health technologies and later-life pain. *The Journal of Pain*, 19, 1416-1423.;

- ▶ We know very little about implementation of these interventions
 - ▶ Direct to patient
 - ▶ Health system
- ▶ Barriers and facilitators to internet treatment for anxiety and depression⁵
 - ▶ Need for better and more timely access is clear
 - ▶ Skepticism about treatment
 - ▶ Recruitment/Marketing
 - ▶ Fit with therapist practice
 - ▶ Two transition points to navigate to sustainability

IMPLEMENTATION

⁵Folker et al. (2018) Implementing internet-delivered cognitive behavioral therapy for common mental health disorders, *Internet Interventions*, 11, 60-70. Hill et al. (2018)

- ▶ Billing
- ▶ Licensure
- ▶ Sustainability
- ▶ Manage risk
- ▶ Information security
- ▶ Promote of research/commercial/system/governmental partnerships
- ▶ Develop consensus statements

POLICY/GUIDANCE^{3,6}

⁶See Hill et al. (2018) *Internet Interventions*, 12, 1-10 for discussion of these issues as they related to internet based CBT for children and adolescents with anxiety disorders ; ³McGuire et al (2017). Translating e-pain research into patient care, *Pain*, 158, 190-193.

- ▶ Not everyone who wants or could benefit from self-management interventions will get them under the current system
- ▶ Technology-based treatments show promise, but important barriers remain
- ▶ We do not know which treatments are best
- ▶ We don't know how to implement technology-based treatments into routine care
- ▶ Independent researcher acting alone will not surmount the barriers
 - ▶ Consensus among researchers
 - ▶ Partnerships

SUMMARY