

Determining a Clinical Role for Digital Apps for Mental Health

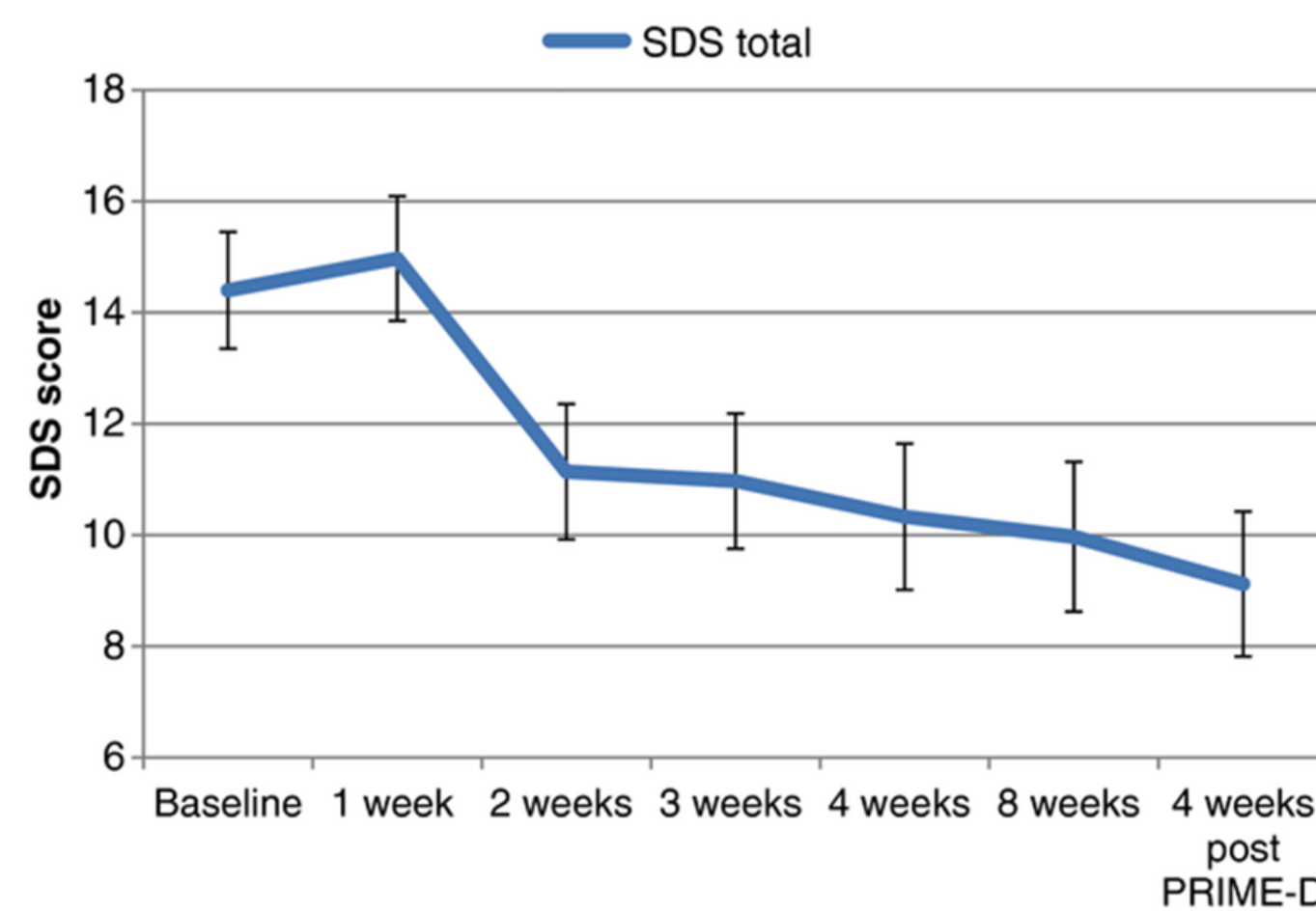
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ABSTRACT

In 2017, the FDA approved the first app for treatment of alcohol, cocaine, marijuana and stimulant use disorders. In a preceding randomized controlled trial, mobile software Therapeutic Education System (TES) was found to reduce dropout from treatment and to increase patients' rates of abstinence from substance abuse. Another study showed that PRIME-D, a mobile-based treatment for depression, positively affected symptoms of depression and disability. Many individuals seek out self-help apps for psychiatric complaints, although, in general, little evidence exists for evaluation of the most accessible mobile apps for self-help. What are the strengths and weaknesses of digital apps for treatment of mental illness? How should a mental health clinician assess the role and efficacy of mobile apps within a patient's treatment? Results of TES trial include lower dropout rate and greater abstinence rate from non-opioid substance abuse. Through use of PRIME-D, individuals were found to have improvement in self-reported depression and self-reported disability. Both TES and PRIME-D trials involved a clinician or coach alongside the mobile intervention. Patients in the PRIME-D study who had greater interaction with masters' level mental health coaches were more likely to have greater improvement in mood symptoms. The high level of retention in study was also thought to be related to human support from mental health coaches. Self-help apps for mental health can increase access to care, without barriers such as clinician availability or clinic hours. Lower cost and convenience could increase adherence. Psychoeducational information can be accurately provided, without risk of faulty administration by staff. The potential for a mobile app-based approach to treatment can reduce stigma and thus increase the likelihood of a patient seeking to address mental illness. Significant drawbacks of self-help apps for mental health include the concerns about privacy of data shared on apps. Apps can provide information that is inappropriate, incorrect or that may be misinterpreted by individual users. Apps may not be suitable for emergency situations and may not be easy to use by patients who have serious mental illness. Developed by the American Psychiatric Association, the APA App Evaluation model provides a means for clinicians to evaluate apps for mental health. The model employs a five-tiered system for assessing background information, privacy and security, clinical evidence, ease of use, and potential to share data with the clinical team. In conclusion, evidence from two interventions shows that mobile apps can improve outcomes in patients with non-opioid substance use disorder and depression. Digital apps for mental health can allow increased access to mental health resources; however, also have significant drawbacks related to privacy, the risk of misinformation, and inadequacy in an emergency.

The feasibility, acceptability, and outcomes of PRIME-D: A novel mobile intervention treatment for depression



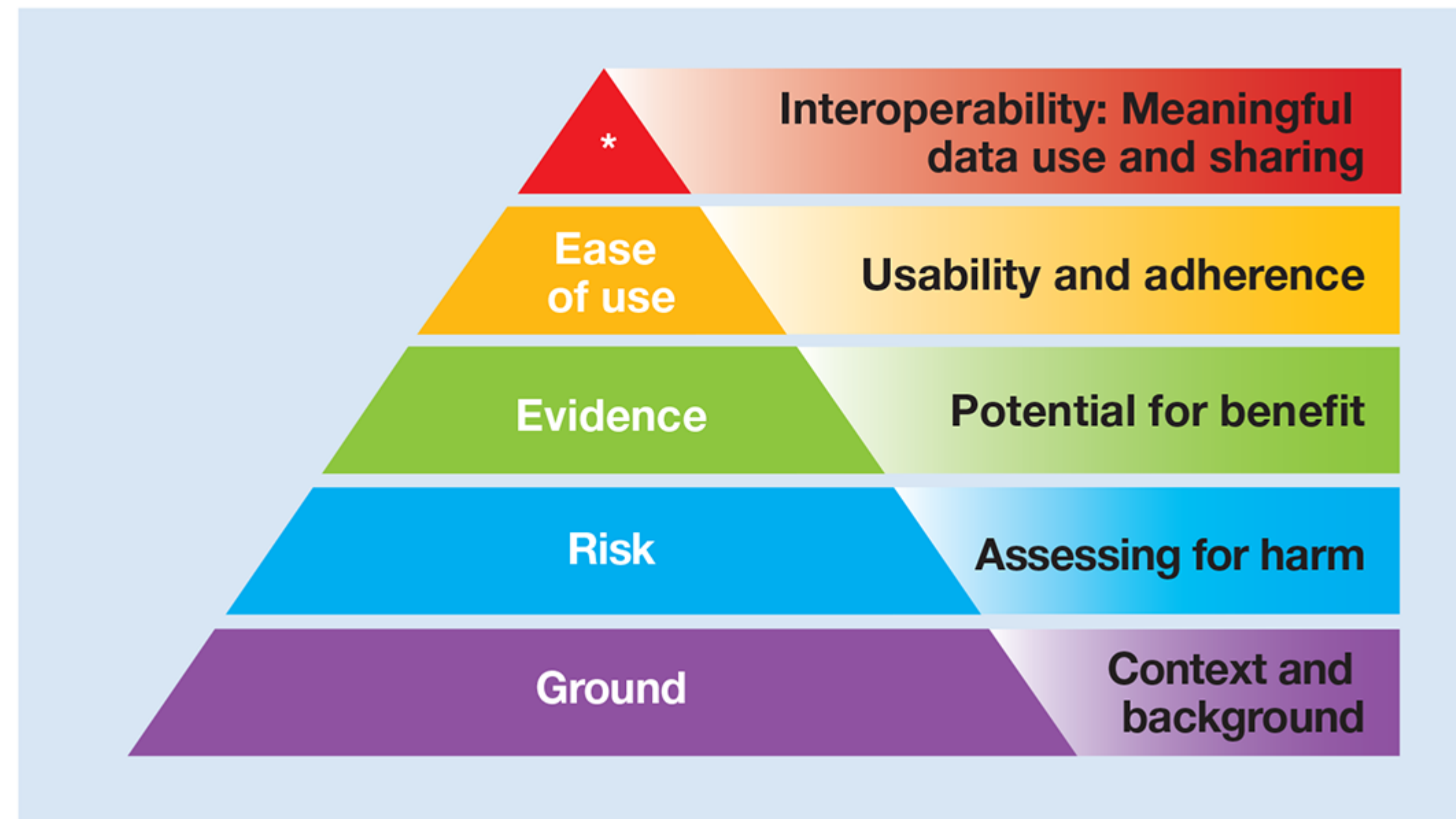
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Changes in total self-reported disability (SDS scores) as a function of PRIME-D use from baseline to 4-week posttrial

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Figure

The American Psychiatric Association App Evaluation Model

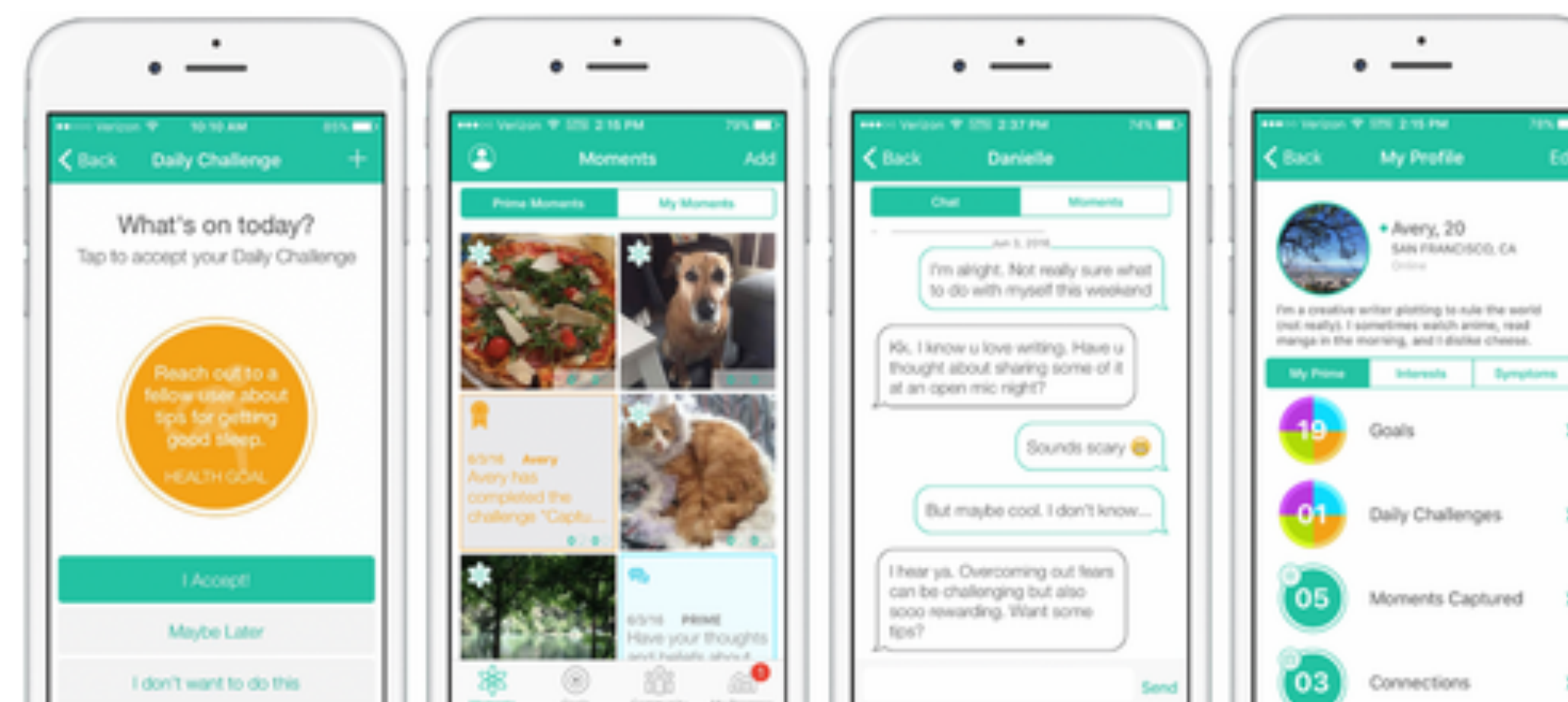


Torous, J., Luo, J., Chan, S. (2018). Mental health apps: What to tell patients. Current Psychiatry, 17(3), 21-25.

CLINICAL TAKEAWAYS

- Ask patients about use of apps for mental health, which may involve psychoeducation, journaling, support, hypnosis, games
- Use APA App Evaluation Model (rather than online app reviews) to discuss salient aspects of apps patients report using
- Relevant points for evaluation include quality and appropriateness of intervention, privacy policy and data security, ease of use
- Consider recommending or prescribing apps that permit data sharing, as clinical outcomes improve with digital treatment involving support from a trained mental health coach

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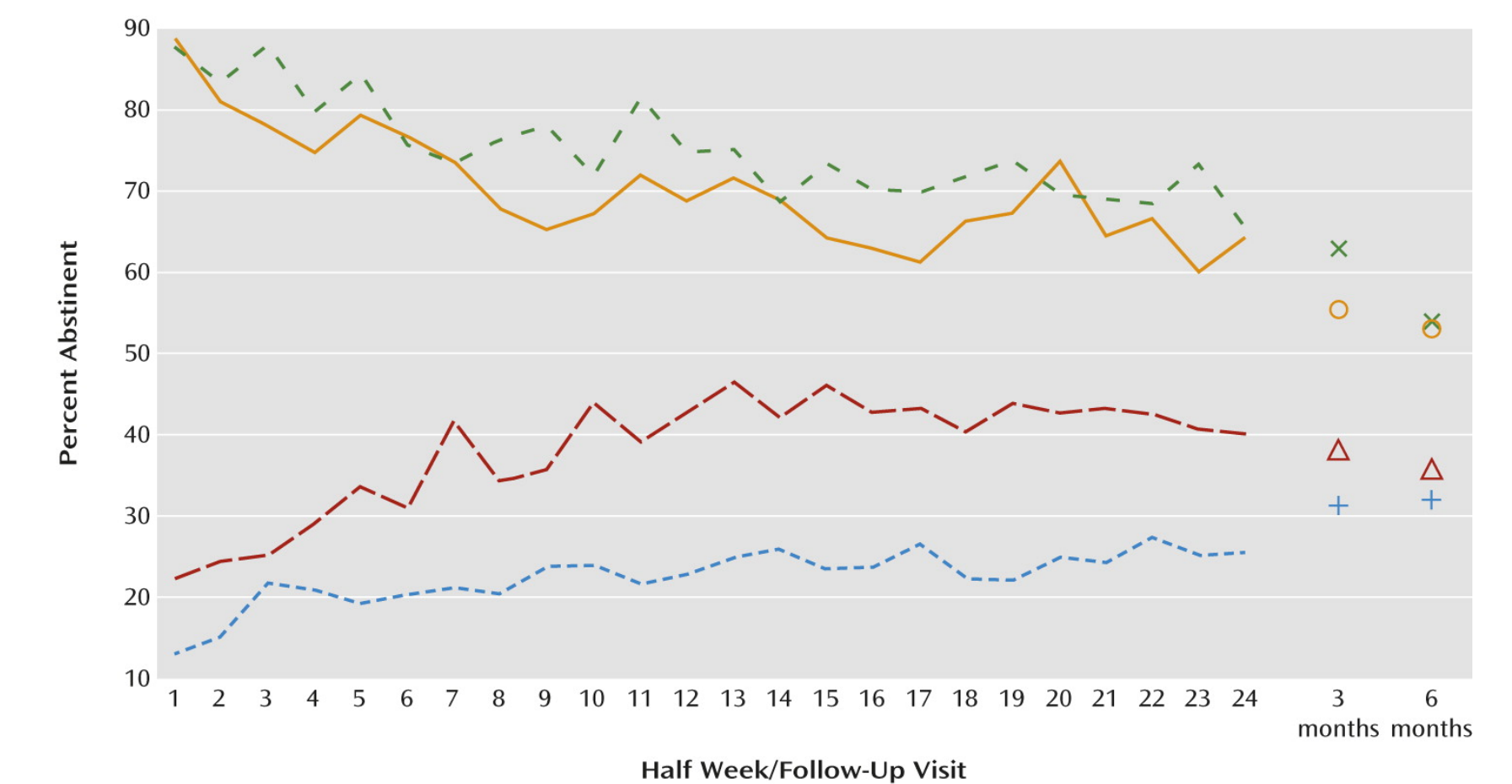


FIGURE: Abstinence by Treatment Half Week and at Follow-Ups Among Participants in Outpatient Addiction Treatment Programs Receiving Treatment as Usual or Treatment as Usual Plus TES, an Internet-Delivered Behavioral Intervention for Substance Abuse, by Abstinence at Baseline/Study Entry from Campbell, A., Nunes, E., Matthews, A., Stitzer, M., Miele, G., Polsky, D., . . . Ghitza, U. (2014). Internet-Delivered Treatment for Substance Abuse: A Multisite Randomized Controlled Trial. American Journal of Psychiatry, 171(6), 683-690.

BENEFITS OF USE

- Increased access to care – low cost, immediate, flexible
- Accurate delivery of therapeutic interventions, psychoeducation
- Perceived privacy/lower stigma could increase likelihood of seeking help
- Multimodal approach to therapy, offers enhanced therapeutic collaboration and engagement in treatment
- Clinical data shows significant increase in treatment efficacy for some patients with use
- Use could increase virtual social contact

RISKS OF USE

- Privacy of data may be compromised, especially with free apps
- Misinformation - incorrect/inappropriate or misinterpreted by patient
- Insufficient for clinical emergencies, severe or acute mental illness
- Limited evidence for use
- Fragmentation of care - patient data may not be accessible by clinician
- Use could reduce real-time social contact

The reSET device, screenshots. From De Novo Classification Request for reSET, link provided by Pear Therapeutics.

