These products spanned a diverse range of functions including device data and decision support systems. Although 11 had clinical trial data demonstrating efficacy, only 4 had data demonstrating both efficacy and safety. Two of the regulated applications were subject to product recalls due to programming errors that resulted in incorrect insulin dose recommendations. These two applications had clinical trials evaluating efficacy but not safety. The companies noted that the incorrect insulin calculation from their respective mHealth app could cause either a low- or high-impact hypoglycemic event. DISCUSSION/SIGNIFICANCE OF IMPACT: With little to no clinical trial data to support their safety and efficacy, mHealth apps in the diabetes marketplace pose risks for patients as evidenced by recent safety-related recalls. The results of this study indicate that these products may need to be more tightly regulated.

4016

Combined Eating Disorder and Weight-Loss Online Guided-Self Help Intervention: Updated Results from an Ongoing Pilot Study

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OBJECTIVES/GOALS: Aims 1&2: Develop (1) and implement (2) online, guided self-help intervention for ED psychopathology and weight reduction. Aim 3: Follow-up to track remission of ED psychopathology and symptoms and WL maintenance at end of treatment and 6-months. METHODS/STUDY POPULATION: N = 60 college students meeting criteria (clinical/sub-clinical binge-type ED with BMI > 25) will complete a baseline survey and then will be randomized into a condition. Students in the intervention group (n = 30) will be offered 8 weeks of an online, guided self-help intervention for ED and WL. Students in the control group (n = 30) will receive an email message to seek support from Student Health Services. All participants will receive follow-ups 9 weeks and 6 months after baseline. Data analysis will compare Eating Disorder Examination Questionnaire (EDE-Q) scores and WL (change in BMI) at all three time-points. Group comparisons will be assessed via two-way mixed-model ANOVA. RESULTS/ANTICIPATED RESULTS: Recruitment is still ongoing. Data collected by the time of the conference will be presented on the poster. DISCUSSION/SIGNIFICANCE OF IMPACT: Online, guided self-help interventions have been used for WL, as well as for treatment of EDs separately, but no program exists to manage these commonly comorbid conditions concurrently. Thus, this pilot study will examine the effectiveness of combined programs to breach this treatment gap.

4101

Creating a Culturally Sensitive Report Card for African American (AA) Kidney Transplant Candidates

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OBJECTIVES/GOALS: AA are over-represented on the waitlist for kidney transplant and are often unaware of how waitlist acceptance practices differ across transplant programs and influence access to transplant. We will develop a culturally sensitive transplant program report card to communicate these variations. METHODS/STUDY POPULATION: Scientific Registry of Transplant Recipients (SRTR) data will be used to identity clinical factors strongly associated with AA access to transplant. Interviews and focus groups with AA kidney transplant candidates and their families will collect feedback on the SRTR report card and inform the development of the culturally sensitive report card. Additional focus groups will evaluate its effect on knowledge and medical decision making. We will collaborate with the stakeholders, including AA transplant candidates and their families, transplant programs, SRTR, and providers, to identify strategies to disseminate the report card in the AA community RESULTS/ANTICIPATED RESULTS: To date, no investigation has systematically collected feedback on the SRTR transplant program report card from AA candidates to ensure that the tool is accessible and effective in the AA community. We hypothesize that a culturally sensitive report card will improve AA candidates' knowledge of program factors that impact access to transplant and enable informed decisions about where they pursue a transplant evaluation. The results of this study have the potential to change how AA patients are counselled while seeking transplantation. DISCUSSION/SIGNIFICANCE OF IMPACT: A culturally sensitive report card can reach more AA patients and enable more informed decision making by providing education about differences in transplant programs that may impact their access to transplant. In the future, we will design a trial to evaluate the prototype.

4056

Dementia family caregivers' mobile app use and intention to adopt mHealth apps[†]

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OBJECTIVES/GOALS: To describe preliminary results of Alzheimer's and dementia caregivers' (CGs) mobile app use and intention to adopt mHealth apps for their own chronic condition self-management. To discuss implications for designing and implementing mHealth interventions for CGs. METHODS/STUDY POPULATION: This study aims to recruit 110 racially and ethnically diverse family caregivers (CGs) who have a chronic condition, provide care for persons with Alzheimer's disease or related dementias, and have access to a mobile device. This is a cross-sectional correlational study collecting data with computer-assisted telephone interviews stored through REDCap. The study survey was created using existing surveys about mobile app use; relevant, well-validated research instruments; and questions from the U.S. Census and other national surveys. CGs are being actively recruited from the Baltimore-Washington metropolitan area using various recruitment strategies that have been effective in prior studies. RESULTS/ANTICIPATED RESULTS: The majority of CGs used websites (86%), mobile devices (68%) or apps (53%) to manage their own health. CGs using health-related apps were tracking their exercise (60%), diet (60%), medical records (50%), and physical health measures (50%). More than 4 out of 5 (82%) predicted they would use mobile apps to self-manage their chronic condition, though only 68% actually planned to use them. 86% of CGs were using mobile apps for non-health related purposes, with the most popular app being weather (90%), followed by social media (74%), music/entertainment (68%), and banking/business apps (63%). CGs used weather and social media apps most often (2 or more times/day) and spent 9 hours/week on apps. DISCUSSION/SIGNIFICANCE

OF IMPACT: Websites and mobile apps appear to be feasible modes to deliver health interventions to CGs. Researchers should consider including features of apps most frequently used by CGs, such as the weather, ways to connect with others, and music/entertainment, when delivering mHealth interventions to CGs.

4135

Digital Mental Health Interventions for PTSD & Resilience: A Systematic Review

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OBJECTIVES/GOALS: 1) In this literature review we want to explore the literature on DMHI (Interventions delivered via digital technologies, such as smartphones, websites, or text messaging), specifically designed to treat Posttraumatic Stress Disorder (PTSD), and/or to promote positive change & resilience after trauma. 2) We also want to evaluate the literature in terms of the theoretical model used in each DMHI, engagement, effectiveness, & potential harms/challenges. METHODS/STUDY POPULATION: We will review the literature that describes DMHI for PTSD, resilience, & positive change in persons exposed to psychological trauma (Exposure to actual or threatened death, serious injury, or sexual violence, as defined by the fifth edition of the Diagnostic & Statistical Manual of Mental Disorders). We will review the following databases: PsychINFO, EBSCOhost, PubMed, & PsychiatryOnline. The following inclusion criteria will be used: 1) Interventions delivered by computer, smartphones, or online, 2) studies published between 1999-2019. Exclusion criteria will include reviews, opinion, or discussion articles, & unpublished works. RESULTS/ANTICIPATED RESULTS: We expect to find that the most popular therapeutic model for DMHI is cognitive behavioral therapy. We also expect to find a higher number of web-based interventions, as opposed to phone-based interventions, or other types of DMHI. We also expect to find variable drop-out rates, low engagement, & small to moderate effect sizes. DISCUSSION/SIGNIFICANCE OF IMPACT: We expect our contribution to center on evaluating available DMHI for psychological trauma. This systematic literature review is expected to provide scientific justification for the development (or validation), & implementation of a DMHI that takes into account the results of previous studies. This contribution is expected to be significant because it will help in choosing, or developing an effective future intervention with DMHI. CONFLICT OF INTEREST DESCRIPTION: There is no conflict of interest in this study.

4178

The feasibility/acceptability of using smartphone technology to assess mental health symptoms among Spanish-speaking outpatients

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OBJECTIVES/GOALS: Geographic and linguistic isolation is associated with negative mental health outcomes, including increased risk for suicide, among ethnic/racial minorities. This study explores the feasibility of using smartphone technology with active and passive sensing to assess mental health symptoms and social behavior among at risk Spanish-speakers. METHODS/STUDY POPULATION: Participants were 13 Spanish-speaking adult outpatients who reported hopelessness/suicide ideation in the last month. Participants completed a baseline interview, 2-weeks of remote ecological momentary assessments (EMA; 4xday) using a smartphone with optional passive sensing (GPS, ambient sound recording), and a final interview. All participants identified as Hispanic (84.6% female, M age = 42.24 years). 53.8% identified as White, with 46.2% reporting race as Other (e.g., Indio, Trigueña). On average, participants had lived in the USA for 6.56 years ($SD = 12.63$ years). A majority (69.2%) met for Major Depressive Episode Current. At baseline, 53.8% reported passive and 23.1% reported active suicide ideation in the last month. 46.2% of participants reported a previous suicide attempt. RESULTS/ANTICIPATED RESULTS: A majority (84.6%) of participants consented to all passive data collection (GPS tracking and ambient sound recording). One participant dropped out after baseline and did not complete the EMA study portion. Participants completed on average 76.93% EMA survey instances ($SD = 18.01$%). Baseline depression/anxiety severity were significantly positively associated with symptom severity at 2-week follow-up ($p < .01$); however, baseline suicide ideation was not associated with ideation at follow-up. Participants did not report significant changes in mood or ideation from baseline to 2-week follow-up. Symptom severity at baseline was not associated with EMA instances completed. Percent of EMA instances completed were also not associated with symptom severity at follow-up, controlling for baseline severity. DISCUSSION/SIGNIFICANCE OF IMPACT: Results support the feasibility of smartphones to assess mental health symptoms and behaviors in real time, real world settings with Spanish-speakers. A majority of patients consented to active and passive remote assessments. Adherence to remote EMA was good and study attrition was minimal. Implications and future directions will be discussed.

Education/Mentoring/Professional and Career Development

4195

"Learning Shots" are an Innovative, Versatile Educational Tool for Clinical and Translational Science

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OBJECTIVES/GOALS: To demonstrate how brief online audiovisual presentations, "learning shots", informed by evaluation, can be used to quickly and effectively provide essential just-in-time research-related education in the complex and evolving world of clinical and translational science. METHODS/STUDY POPULATION: "Learning shots" are an educational tool, originally developed by the University of Virginia IRB for Health Sciences Research, that cover a broad spectrum of methodological, regulatory, and ethical topics in research. They are designed to be responsive to adult learners, a rapidly changing research environment, and the need for flexible offerings. Learning shots target different groups involved in research including clinical research coordinators, investigators, and trainees. A survey was used to assess the role of learning shots in meeting learning needs. Moving forward, continuous evaluation will occur through the addition of tracking and a short evaluation survey to each learning shot. RESULTS/ANTICIPATED RESULTS: The University of Virginia has an online library of over 30 learning shots. Learning shots are used to cover foundational topics