

Digital Health/Social Media

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A Cardiovascular Health and Wellness Mobile Health Intervention Among Church-going African-Americans: Formative Evaluation of the FAITH! App

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OBJECTIVES/GOALS: To evaluate the FAITH! (Fostering African-American Improvement in Total Health) App mHealth lifestyle intervention by using post-intervention feedback obtained from participants in our intervention pilot study. **METHODS/STUDY POPULATION:** We used qualitative methods (focus groups) to elicit post-intervention feedback. Participants who completed the pilot study were recruited to one of two focus groups. Semi-structured focus groups were conducted to explore participants' views on the app functionality, utility and satisfaction as well as its impact on healthy lifestyle change. Sessions were audio-recorded, transcribed verbatim and qualitative data were analyzed by systematic text condensation thematic analysis. **RESULTS/ANTICIPATED RESULTS:** Nine individuals participated (N=4 and N=5) in each of the two focus groups. Their mean age was 47.9 years (SD 12.1), 67% were women, and all had at least an education level of some college. Six overarching themes emerged from the data: (1) overall impression, (2) content usefulness (3) formatting, (4) implementation, (5) impact and (6) suggestions for improvement. Underpinning the themes was a high level of agreement that the intervention facilitated healthy behavioral change through cultural tailoring, multimedia education modules and social networking. Among the suggestions for improvement were streamlining of app self-monitoring features, personalization based on individual's cardiovascular risk and attentiveness to nuanced cultural perspectives. **DISCUSSION/SIGNIFICANCE OF IMPACT:** This formative evaluation found the FAITH! App mHealth lifestyle intervention had high reported satisfaction and impact on the health-promoting behaviors of African-Americans, thereby improving their overall cardiovascular health. The findings provide further support for the acceptability of mHealth interventions among African-Americans. **CONFLICT OF INTEREST DESCRIPTION:** None.

4382

All IN for Health: Promoting good health and engaging a health research volunteer community in the Hoosier state

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OBJECTIVES/GOALS:

- To improve and expand health and research literacy throughout Indiana by sharing health-focused resources and research outcomes.
- To encourage and increase health research participation throughout Indiana by promoting health research opportunities, including clinical studies.

METHODS/STUDY POPULATION:

- Discover and understand community concerns and barriers to good health and clinical research participation by providing a platform for individuals and communities to share their voices.
- Educate Indiana residents on the importance of participating in health research.
- Engage with the community to meet them where they are (online) and continue to build relationships throughout the state.
- Promote healthy living for Indiana residents by sharing health education and resources from existing state health organizations and initiatives.
- Develop and maintain the largest statewide database of research volunteers.

RESULTS/ANTICIPATED RESULTS:

- The anticipated results from this program include engagement of all populations and all communities throughout the state in conversation and education around good health and health research, as well as participation in health research across the CTSI's partner organizations. Large-scale growth is expected in both the online community and consented volunteer registry is expected to include and engage racially and ethnically diverse populations, as well as special health populations, such as representatives of rural communities, aged, rare disease survivors, and transgender individuals.

DISCUSSION/SIGNIFICANCE OF IMPACT:

- Thorough this work, the Indiana CTSI has developed a unique program, educating the public about health research and opportunities to participate, while simultaneously supporting research departments with marketing promotion of their efforts, and a ready statewide volunteer community.

4230

An App a Day: Examining Clinical Evidence for Safety and Efficacy of Diabetes Mobile Health Apps

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OBJECTIVES/GOALS: Mobile health applications are widely used by the public but vary in how they are classified and regulated. This study examines the evidence of the safety and efficacy of mobile medical applications specifically focusing on those that are used to manage diabetes. **METHODS/STUDY POPULATION:** To understand the current regulatory landscape of mobile health applications (mHealth apps) for diabetes, a literature survey was conducted using the Pubmed database. Top mHealth apps were identified by searching the Apple store website using 10 key terms associated with diabetes management applications. A maximum of ten results, when available for each key term, were studied by exploring the FDA databases to understand how the products were regulated and if any were subject to recalls. These selected mHealth apps were also searched on clinicaltrials.gov to see if there were ongoing or completed clinical trials and if the trials were designed to include efficacy and safety outcome measures. **RESULTS/ANTICIPATED RESULTS:** Of the 71 mHealth apps for diabetes management that were identified, 16 were regulated.

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 identify 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**