Research and News Worth Repeating

July 30, 2020

Mobile Health Apps News

Healthcare Apps: A Boon, Today and Tomorrow

Forbes, July 21, 2020

Use of healthcare apps has been growing over the last several years but has accelerated dramatically during the COVID-19 pandemic. Overall app usage has surged 40% during the pandemic, reaching an all-time high of over 200 billion hours during April 2020. Wellness apps have also seen large increases in usage. Headspace, an app for mindfulness and meditation saw an increase of 90% in time spent on the app in March 2020. The industry leader in the category, Calm, has been added by Kaiser Permanente to its self-care portfolio and offered it to their members for free download. Time spent on the Mayo Clinic app, which can be used for scheduling, secure messaging, health information, and test results increased 200% during the same time period.

Telehealth applications have also seen increase over the last few years and are increasingly viewed as a partial solution to physician shortages and increasing wait times for appointments in many areas, issues which have become especially acute during the pandemic. Viewed as a cost-saving mechanism before the pandemic, telehealth is rapidly seen as a necessary tool for providing access to treatment that can avoid face-to-face contact.

https://www.forbes.com/sites/eladnatanson/2020/07/21/healthcare-apps-a-boon-today-and-tomorrow/#2627c29e1bb9

Developing and testing a mobile phone app to deliver naloxone to opioid overdose victims in Philadelphia

APHA, November 2019

Lay responders administering naloxone to overdose victims has been on way cities have responded to the opioid crisis. Philadelphia has the highest rate of drug overdose among cities in the United States, and researchers from Drexel University in Philadelphia developed a mobile app, UnityPhilly, to link lay naloxone responders to overdose victims in real time. For a pilot test of the app, 31 community members and 32 active opioid users were recruited and trained as responders. Between the months of February and June 2019, 23 opioid overdose incidents were messaged, responders arrived at the overdose location for 15 cases, and naloxone was administered at 4 events.

https://apha.confex.com/apha/2019/meetingapi.cgi/Paper/453740?filename=2019_Abstract453740.html&template=Word

Yale Researchers Develop Virtual Reality Game to Combat Teen Vaping

Connecticut Public Radio, November 4, 2019

According to the U.S. Food and Drug Administration, 1 in 4 high school students have used an e-cigarette. Researchers from Yale University developed a virtual reality game on vaping prevention, with the goal of arming students with accurate and true vaping information.

The game includes recorded voices from local actors, and the virtual school is modeled after a local high school. Students become characters in a high school environment and are put in situations where they get offered vaping products so they can learn appropriate responses. The game is being tested in a randomized controlled trial run by the play4REAL Lab at the Yale Center for Health and Learning Games on 300 7th and 8th graders in the Milford Public School District.

https://www.wnpr.org/post/yale-researchers-develop-virtual-reality-game-combat-teen-vaping

New App Helping Dartmouth Students 'Unmask' Discussion on Mental Health

NHPR, February 3, 2020

After seeing many of his peers struggle with mental health, Dartmouth freshman Sanat Mohapatra created an app called "Unmasked" to create an opportunity for students to be "real" with each other.

The main idea is for students to post on the message board anonymously, giving students the chance to comment and connect with people who may be going through the same issues as them. The app is limited to Dartmouth students and there's flagging for malicious or off-topic content.

https://www.nhpr.org/post/new-app-helping-dartmouth-students-unmask-discussion-mental-health#stream/0

Tech-based CBT for Alcohol Treatment

Center for Technology and Behavioral Health, September 30, 2019

Cognitive-behavioral therapy (CBT), a method of challenging unhelpful thoughts and eventually behaviors, has proven to be useful for patients. A meta-analysis on tech-delivered CBT-based interventions for alcohol use conducted by researchers from Yale University, University of California, Brown University, and the University of New Mexico found fifteen clinical trials of involving almost ten thousand participants. Studies included at-risk or heavy drinkers with reduced alcohol consumption was the primary outcome.

Results showed a benefit from tech-based delivery of CBT for heavy drinkers when used as a standalone therapy or in addition to usual care. The tech-based interventions enhance reach to patients without requiring in-person sessions.

https://www.news-medical.net/news/20190930/Tech-based-delivery-of-CBT-shows-promise-for-alcohol-use-treatment.aspx

Computational Markers of Risky Decision-making for Identification of Temporal Windows of Vulnerability to Opioid Use in a Real-world Clinical Setting

JAMA psychiatry, December 8, 2019

Opioid addiction is a public health epidemic and treatment dropout and relapse are dropout are common outcomes even with evidence-based treatments. A system or method of identifying relapse risk is important for further patient understanding. Researchers used a risky decision-making task to study the relationship between current tolerance of known risks and ambiguity or partially unknown risks with anxiety, craving, withdrawal, nonadherence and subsequent opioid use. The task involved a computer betting game in which the winning probability in the game could be varied to be known or ambiguous, in which the winning probability was not given. Seventy patients were enrolled in a study and patients completed from 1 to 15 of the risky decision-making tasks, averaging almost 8 sessions. Patients who were more tolerant of ambiguous risks were more likely to reuse, independent of other clinical factors often associated with reuse.

https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2757378

Research & Policy on Substance Use

Stanford neuroscientists target drug-associated memories as a way to prevent relapse

Stanford News, July 16, 2020

One of the most difficult part of treating addiction is preventing relapse. Withdrawal from opioid addiction can be severe and avoiding withdrawal is a common factor in relapse. According to Xiaoke Chen, a biologist at Stanford, the drug "high" reward and the alleviation of withdrawal

can create powerful memory cues that can lead to drug cravings and relapse. Thus, Dr. Chen studied opioid addiction as a memory problem.

In a recently published experiment, mice were trained to associate tactile and visual cues to choose a drug-free saline solution or one with a small dose of morphine. Once the mice became morphine dependent, a paraventricular thalamus (PVT) pathway, which has been associated with brain regions involved with addiction, was "turned off," environmental cues no longer worked to activate the morphine preference. Implications of this "memory erasure" for treatment are noted.

https://news.stanford.edu/2020/07/16/erasing-memories-stop-drug-relapse/

Care for veterans with substance use and mental health disorders needs improvement

Medical Xpress, July 22, 2020

U.S. veterans who have served in the military since the 9/11 attacks the have a high need for substance abuse and mental health support. The RAND Corporation was asked by the Wounded Warrior Project, a non-profit that provides support for veterans with significant injuries, to examine the state of care provided to 9/11 veterans.

RAND reports that service availability has increased in recent years, but more is needed. Recommendations include more data, tracking, and evidence-based treatments for substance use and co-occurring mental health disorders for veterans.

https://medicalxpress.com/news/2020-07-veterans-substance-mental-health-disorders.html

SAMHSA Revises Privacy Rule 42 CFR Part 2 for Substance Use Patients

Health IT Security, July 13, 2020

The Department of Health and Human Services announced revisions of the Confidentiality of Substance Use Disorder Patient Records Regulation that previously kept patient's records regarding substance use disorder diagnoses and treatments confidential and not available to clinicians treating the patient. . Under the reform, , a substance use disorder program may only disclose private identifying information to doctors with the written consent of the patient. This reform will make it easier for patients to discuss substance use with their doctors.

https://healthitsecurity.com/news/samhsa-revises-privacy-rule-part-42-cfr-for-substance-use-patients

FDA issues draft guidance on cannabis research

The Hill, July 21, 2020

The Food and Drug Administration (FDA) has released a draft of guidance that will help establish cannabis research rules. Concern had been expressed in a 2019 public hearing about inaccurate or misleading marketing for CBD products. In 2018, the Farm Bill legalized hemp and derivatives such as CBD. Many stakeholders have expressed interest since then in the development and research of drugs using cannabis products and the FDA is interested in helping to support such development.

https://thehill.com/homenews/news/508341-fda-issues-draft-guidance-on-cannabis-research