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By **Dave Muoio** | February 21, 2018

Mobile health program improved addiction outcomes despite low clinician engagement

Integration of a practitioner-developed mobile health system within a primary care setting was well-received by substance use disorder (SUD) patients and generally improved outcomes, according to a study recently published in the **Journal of Medical Internet Research**.

However, the technology was not well adopted by clinicians due to its separation from pre-existing EHR workflows, the difficulty of initially enrolling patients in the program, and other logistical roadblocks.

"Although primary care clinicians routinely treat chronic conditions such as asthma and diabetes, they rarely treat addiction, a common chronic condition. Instead, addiction is most often treated in the US healthcare system, if it is treated at all, in a separate behavioral health system," the researchers wrote in the study. "mHealth could help integrate addiction treatment in primary care."

The mobile health program employed in the study, called Seva, was developed by the researchers for a **previous investigation**. Drawing from two pre-existing systems — the web- and mobile-based Therapeutic Education System for addiction treatment and the smartphone-driven A-CHESS recovery support program — Seva combines interactive, educational, skill-building modules with a support network where peers can discuss the topics of the modules. Data from the program's check-in features or other patient input sections can also be viewed and acted upon by clinicians, who see these updates through a web-based dashboard.

To test the program's impact, researchers instructed clinicians to enroll 100 patients at each of three US federally qualified health centers. Patients were not randomized, but chosen through EHRs by participating clinicians based on who they believed might benefit from the mobile health program. Site coordinators trained patients on how to use the program in person, and provided participants with a mobile phone if they did not already own them.

The researchers found that SUD patients provided with Seva significantly reduced their number of self-reported drinking days (44 percent) and illicit drug-use days (34 percent), while reporting greater overall quality of life. Patients enrolled in the program also visited hospitals or ERs significantly less often over a six month period, and were more likely to receive HIV screening. The researchers reported high levels of sustained use of the mobile health program across all three sites, and noted that patients were providing peer support through the service "in ways that are novel in primary care settings."

On the other hand, the researchers wrote that continued use of the program was much less common among clinicians, with most entries into the system handled by behavioral health specialists working at the clinics. This trend was attributed to unsuccessful incorporation of Seva data into each clinics EHR, as well as a general unwillingness among clinicians to be responsible for the extra data made available by Seva. Issues of cost also impacted Seva's reach and long-term sustainability, with all three centers halting their use of the program once grant funding ceased (despite two of the clinics expressing interest in continuing the program).

"Our experience illustrates that mHealth can engage patients suffering from addiction in ways that benefit patients without adding substantial burden on health care providers. Although challenges remain, thoughtful deployment of mHealth could improve the treatment of addiction in primary care and might also improve the treatment of other chronic conditions that have prominent behavioral components (e.g., diabetes). In so doing, mHealth could transcend the physically local and professionally controlled systems that characterize the US health care system," the researchers concluded.