

## **Abstract**

How Mobile Health Technology May Improve Addiction Treatment for Patients and Providers is a literature review exploring substance use disorder (SUD) in the context of mobile health (mHealth) apps. There is an immense cost tied to substance use disorders which has steadily increased over the last several years. While individuals seeking treatment may initially have success, the chronicity and relapsing nature of the disease adds to the expense and makes it particularly difficult to treat from a provider perspective. This prompted the need to look into creative methods of treatment that may give the necessary support to patients while alleviating the burden for healthcare workers and maintaining healthcare resources. As most people have access to smartphones with the advent of smartphone apps, the objective of our literature review was to investigate how smartphone apps can be a complement to the treatment of substance use disorder. We focused on barriers that exist in treatment of SUD, including both personal characteristics as well as structural barriers. We then looked into the current design of smartphone apps used for SUD treatment. Through our review, we found that smartphone apps have the potential to complement the treatment of SUD by giving continual support to patients and keeping them in treatment longer, ease the stress of administering treatment for providers, and decrease healthcare costs due to SUD. Through our search we also recognized that while there are benefits, there are also limitations to relying on smartphone apps such as the lack of benefit for individuals who do not have access to a smartphone or are not familiar with how to use one. In addition, there are very few evidence-based apps on the market, and for the ones that do exist, there are language barriers faced by minority populations. We also

recognize that this is a new area of research and further work, such as performing qualitative interviews with individuals who have used these apps, needs to be done.