Modest use of mental health digital therapeutics in clinical practice

Samuel J. Ridout, M.D., Ph.D., Kathryn K. Ridout, M.D., Ph.D., Teresa Y. Lin, Cynthia I. Campbell, PhD

|  |  |
| --- | --- |
| Challenge | Digital therapeutics (DTx) have proliferated yet there is little real-world evidence on patients who receive a recommendation, and how providers use DTx resources in the clinical setting. This study characterized the clinical use of DTx resources in two ways: 1) using electronic health record (EHR) data to identify the clinical and demographic characteristics of patients receiving recommendations from mental health providers to use DTx tools, and 2) an anonymous provider survey to identify characteristics and DTX recommending behaviors of mental health providers in clinical practice.  |
| Existing Evidence | Despite DTx proliferation and potential for application in the mental health care space, patient engagement has been minimal. A mental health provider recommendation could be an influential factor for patient engagement with DTx tools. Provider lack of knowledge regarding DTx, lack of investment and infrastructure, technical issues, workflow and work-load concerns have been identified as barriers to mobile health app adoption and implementation by providers. KPNC offers multiple DTx tools to its members at no cost: Calm, myStrength, Headspace, Silvercloud, Thrive, and Whil. How these DTx resources are recommended and to whom is unknown, as are provider perspectives on use of mental health DTx.  |
| Target Population | 1. Adult patients who have had a mental health encounter and mental health diagnosis from May 1, 2020 to December 31, 2021 (EHR based analyses)
2. Mental health providers throughout the KPNC region (anonymous survey component)
 |
| Intervention or Exposure | 1. Receipt of a DTx recommendation
 |
| **Outcomes/Key Findings** | * **DTx recommendation in mental health was modest.** Of patients with a mental health visit, sixteen percent received a DTx recommendation. They were younger, more often of Asian or Hispanic race or ethnicity, female, without medical comorbidities, and had commercial insurance, compared to those without a DTx recommendation.
* More patients receiving a DTx recommendation had anxiety or adjustment disorder, with fewer having depression, bipolar, or psychotic disorder diagnoses, than those not receiving a DTx recommendation.
* Overall, depression and anxiety symptom scores were lower in patients recommended to DTx compared to matched controls without a recommendation.
* Providers did not appear to actively engage with these tools and integrate them into treatment plans. Providers expressed interest in potential benefits from DTx, but may view DTx as a passive strategy to augment traditional treatment for select patients
 |
| **Resulting Action/Change** | Dr. Ridout has been providing additional training (a briefer training than currently available, adapted from national materials) through active outreach to therapists and psychiatrists, as well as addiction medicine departments throughout the region, on how to utilize the digital resources available within Kaiser Permanente Northern California. |
| Additional Recommendations | N/A |
| Implementation Tools  | * A module in the annual TPIP sessions for psychiatrists as well as active outreach to mental health and addiction medicine departments throughout the region to reinforce the resources available and how to access them.
* Tools that simplify distribution of digital therapeutics resources, linked with the EHR would facilitate utilization and integration into clinical care. For example, a toolbar button, or an order set that simplifies utilization.
 |
| Implementation Measurement | Increased number and percent of recommendations for mental health patients; analyses by patient characteristics and medical center to understand utilization. |
| Reference | Manuscript under revision at JMIR  |