Digital app can help chronic pain sufferers manage their pain

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For the first time, an app has been shown to reduce key symptoms of chronic pain. A UHN-led study evaluated the impact of Manage My Pain (MMP), a digital health solution developed by ManagingLife, on patients seen at the Iroquois Falls Family Health Team, and the Toronto Western and Toronto General Hospitals.

Published today in *JMIR mHealth*, a leading peer-reviewed journal focused on health and biomedical applications, the study showed patients who used the MMP app saw a clinically significant reduction in anxiety and pain catastrophizing, two key areas that drive increased medical needs and potential abuse of prescription opioid.

"Manage My Pain has helped our patients tell their story," says Dr. Hance Clarke, Director Pain Services, Medical Director of The Pain Research Unit, Toronto General Hospital, UHN. "As a result, this has empowered them to engage in discussions that enabled us to come up with patient-centered treatment plans to help manage their pain."

246 participants with chronic pain were enrolled in the study and more than 70 per cent of the group agreed to use the app along with their medication, psychological therapy, and physiotherapy, the other 30 per cent were the control group. The app allowed them to track their pain, create reports that facilitated better communication with their care providers, and through a virtual portal, give clinicians the ability to remotely monitor their patients and use advanced analytics to spot any negative trends weeks and months in advance.

"Prior to Manage My Pain, our clinic was dependent on paper-based questionnaires to understand a patient's pain experience and response to treatment," says Dr. Anuj Bhatia, Site Director, Anesthesia—Interventional Pain Service, Toronto Western Hospital, UHN. "The app allows us to capture even more information than we had previously, while doing so digitally and remotely. The app also allowed us to study trends in intensity of pain and its impact on the patients' lives."

Patients were prompted daily to record their reflections in the app. In less than a minute, they could input the activities they were able to accomplish and rate the pain they felt. In return, they received charts and graphs that highlighted patterns and trends that could increase their self-awareness, and provide insight into triggers and interventions.

For the rural patients involved in this study, the benefits of MMP were remarkably clear from the beginning. Lacking a speciality pain center, patients in Iroquois Falls must rely on their primary caregivers and the app made the communication between the patient-clinician easier and more productive.

"Chronic pain isn't like a broken arm," says Dr. Auri Bruno-Petrina, rural Physician, Iroquois Falls. "It can be invisible to the naked eye, so people who suffer from it can find it very frustrating to explain how they are feeling and how much it is impacting
their lives. This app strengthened my ability to help my patients because we had more nuanced data and we could really dig into the details.

For both rural and urban patients suffering from chronic pain, the use of MMP encouraged tracking and reflecting, both of which are important components of most self-management programs. The ease of adoption also presents a positive opportunity for engaging with patients during significant challenges like the one presented by the COVID-19 pandemic.

"The COVID-19 pandemic has shown us how essential it is for patients to have a role in managing healthcare conditions," says Dr. Clarke. "Digital tools like Manage My Pain are a great way to empower self-management in patients, which is one of the hallmarks of successful clinical care."


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