



In Motion

Highlighting Articles Advancing Pain Research in Canada and the World

Featured article:

Laloo C, Harris LR, Hundert AS, Berard R, Cafazzo J, Connelly M, Feldman BM, Houghton K, Huber A, Laxer RM, Luca N, Schmeling H, Spiegel L, Tucker LB, Pham Q, Davies-Chalmers CC, Stinson JN. (2021).

The iCanCope pain self-management application for adolescents with juvenile idiopathic arthritis: a pilot randomized controlled trial. *Rheumatology*, 60(1), 196-206. doi: 10.1093/rheumatology/keaa178.

Key insights from the study:

- **Pilot Feasibility:** The iCanCope app was successfully implemented in a pediatric rheumatology setting with high participant accrual (82%) and low attrition rates (13%).
- **Acceptance and Adherence:** Both the full-featured iCanCope app and the symptom tracking-only version were highly acceptable to participants, with adherence rates being moderate to high across both groups.
- **Preliminary Effectiveness:** Both versions of the app led to a clinically meaningful reduction in pain intensity by approximately 1 point on a 0-10 scale, though no significant changes were observed in pain-related activity limitations or health-related quality of life.

What happened?

A two-arm pilot randomized controlled trial evaluated the feasibility and preliminary effectiveness of the iCanCope app, which includes symptom tracking, goal-setting, pain coping skills, and social support, in adolescents with juvenile idiopathic arthritis (JIA). Participants (N=60) were recruited from three pediatric rheumatology centers and randomized to either the full-featured iCanCope app or a symptom tracking-only version. Outcomes were assessed at baseline and 8 weeks, with adherence defined based on the proportion of completed symptom reports.

Why is it important?

Juvenile idiopathic arthritis (JIA) is a chronic condition that significantly impacts the quality of life of affected adolescents. Effective pain management is crucial for improving health outcomes. Digital tools like iCanCope can offer accessible and engaging self-management strategies, potentially leading to better pain control and overall well-being. Understanding the feasibility and preliminary impact of such interventions is essential for their further development and integration into routine care.

What now?

The study supports the feasibility of implementing the iCanCope app in clinical settings and indicates that both the full-featured and symptom tracking-only versions are acceptable and beneficial in reducing pain intensity. Future research should focus on larger trials to evaluate the effectiveness of iCanCope in improving broader health outcomes and explore strategies to enhance engagement with the app's features. Health care providers are encouraged to consider digital self-management tools as part of comprehensive care for adolescents with JIA.

