

Does a Digital Mental Health Intervention Affect Symptoms of Depression, Anxiety and Post-Traumatic Stress Disorder After Musculoskeletal Trauma? (ADAPT) A Pilot and Feasibility Study

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BACKGROUND

- The prevalence of depression and PTSD after orthopaedic trauma has been found to be considerably greater than the general adult population.
- Early in the care of orthopaedic trauma there exists an opportunity to improve overall health by attending to psychological and social concerns.
- Digital app-based interventions offer a logical next step in improving access to mental health resources through a self-directed mobile interface.

METHODS

1. Collected mental health symptoms from ortho trauma patients after acute or chronic “problem” fracture.
2. Provided at-risk patients with digital mental health intervention (Wysa) and Garmin device.
3. Collected follow up mental health symptom surveys, app adherence data, and activity data.
4. Compared “high” versus “low” app users.

RESULTS

- To date, thirty-nine patients have been approached, eleven have enrolled, and one participant has been lost to follow up.
- This has resulted in a recruitment rate of 28% (11 enrolled/39 approached), and a retention rate of 91% (10 not lost to follow up/11 enrolled).
- Total meaningful engagements has been 17.25 over the course of the 6 week study period, which is 2.9 engagements per week. Adherence rate, measured as number of patients using the app at least once per week, is 43%.

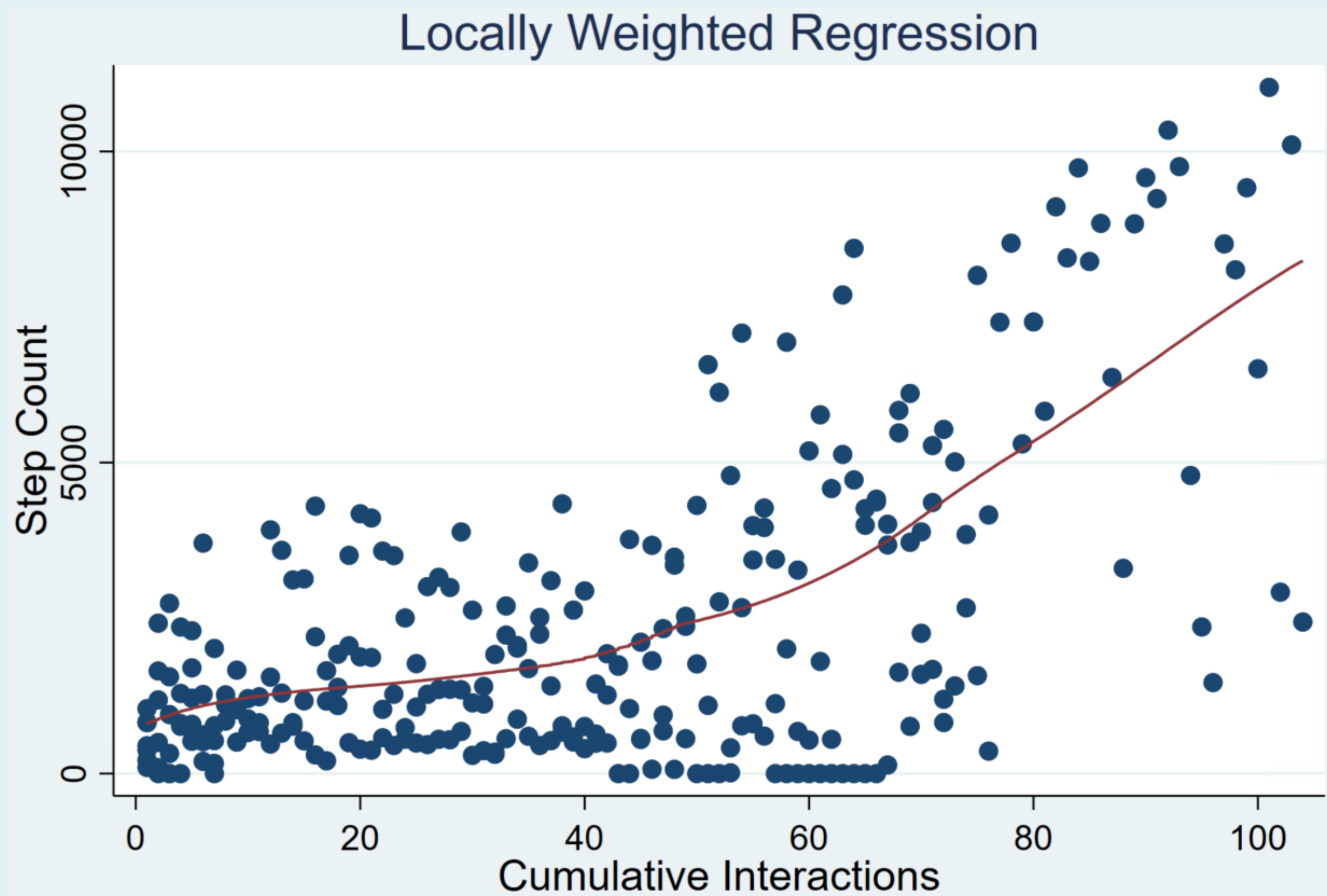
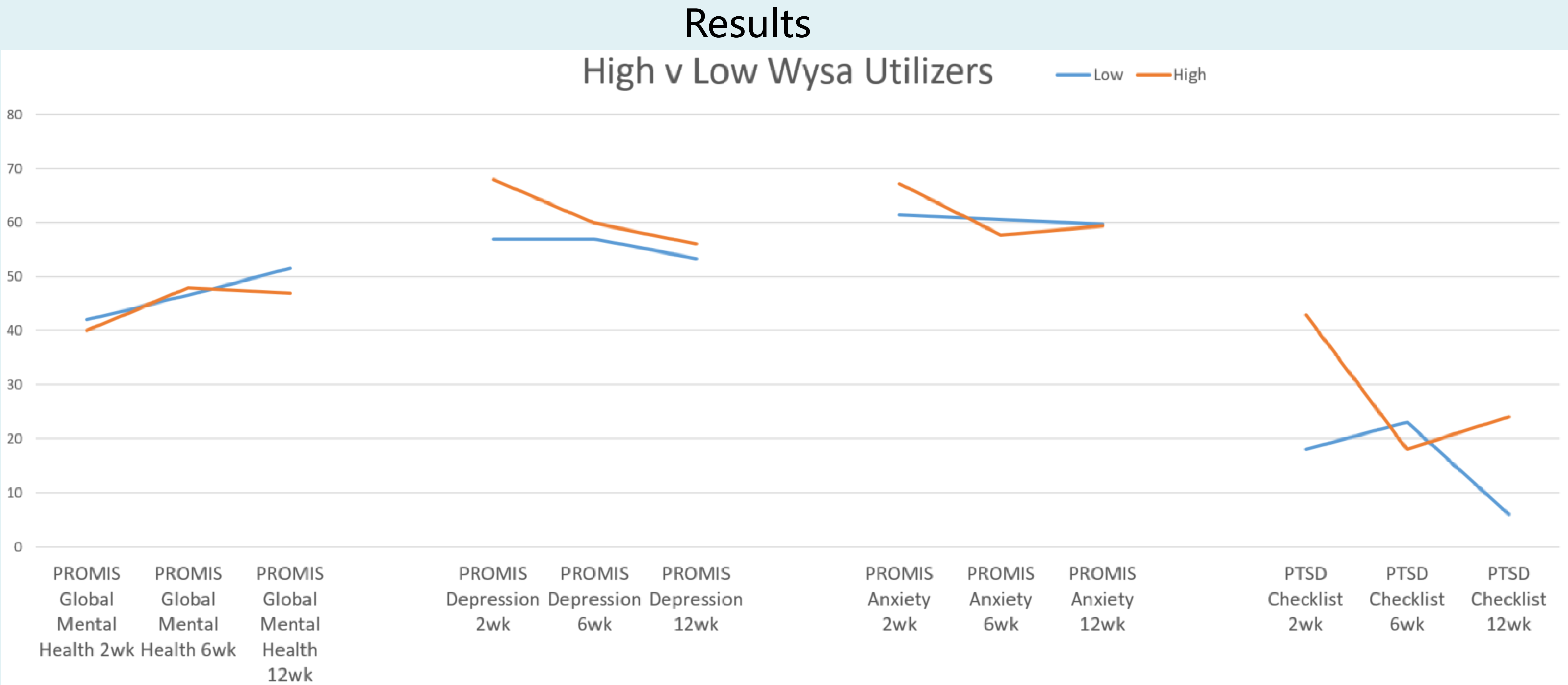
DISCUSSION

- This is an early report from ADAPT, the first study investigating the use of a digital mental health intervention for orthopaedic trauma patients with acute fracture or a chronic “problem” fracture.
- We show early evidence of feasibility in deploying a digital mental health application with a recruitment and adherence rate that is similar to previous reports in the orthopaedic surgery literature, and a relatively higher retention rate.

ACKNOWLEDGEMENTS

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Early results suggest feasibility in utilizing a digital mental health intervention after surgical fixation in orthopaedic trauma patients to improve depression, anxiety and PTSD symptoms.



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