

# Assessing the Impact of a Digital Health Coaching Program for Patients with Rheumatoid Arthritis

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## Background

Despite considerable advancements in pharmacotherapy treatments, millions of people still suffer with Rheumatoid Arthritis (RA). Often patients are overwhelmed and require both coaching and care coordination to improve their well-being. However, clinicians in practice often lack the time, tools, and training required to effectively coach patients in the office environment. This puts management in the hands of the patients, requiring lifestyle changes to improve symptoms associated with RA.

Incorporating tools such as digital remote patient coaching into the workflow of clinicians may aid better outcomes, patient experience, and healthcare utilization. In turn, clinicians are able to overcome the barriers such as time, cost, and patient non-adherence to recommended care.

In this study, we examine the ability of a 12-week digital health coaching program to effectively reduce RA-inducing stressors and increasing healthy behaviors proven to help reduce symptoms and improve well-being in patients with RA.

## Methods

A sample of patients (n=155) opted into the study, gave consent, and received a 12-week remote digital health coaching intervention for the management of Rheumatoid Arthritis. Each patient was paired with a non-clinical health coach. A matched set of pre-post metrics were collected during the program. Metrics tracked include:

- Mental and Physical Health from the PROMIS Global Health-10
- Number of flares experienced each month
- Number of medication doses missed each week

Data was analyzed with IBM SPSS Statistics for Windows, Version 23.0 (Armonk, NY: IBM Corp.). T-tests were conducted to detect significant differences between groups.

Table 1: Demographics

	n = 155
Percent female	96%
Average age (SD)	56 (12)
Average estimated median household income	\$53,949
Percent in a rural area	24%

## Program Details

Figure 1: Behavioral Counseling Intervention Components






	Patient receives evidence-based toolkit
	Patient partnered with a Health Advisor
	Health Advisor coaches and reminds
	Health Advisor coordinates care and services
	Patient graduates into maintenance

Table 2: Week-by-Week Counseling Topics

Week	Comprehensive RA Management Topics
1	Intro, baseline assessment, participant and Health Advisor meet
2	Self-efficacy, SMART goals
3	Management strategies
4	Medications and side effects
5	Healthy eating
6	Physical activity
7	Care team-patient interactions
8	Social support, addictive behaviors
9	Stress management, sleep
10	Financial barriers to good health, health insurance
11	Review/extra time (participant's choice of topic)
12	Celebrating positive changes and direction, 12-week assessment

Figure 2: Data Collection Approach



## Results

Figure 3: Patient-Reported Outcomes Measurement Information System (PROMIS) Global-10



Figure 4: Flare Frequencies

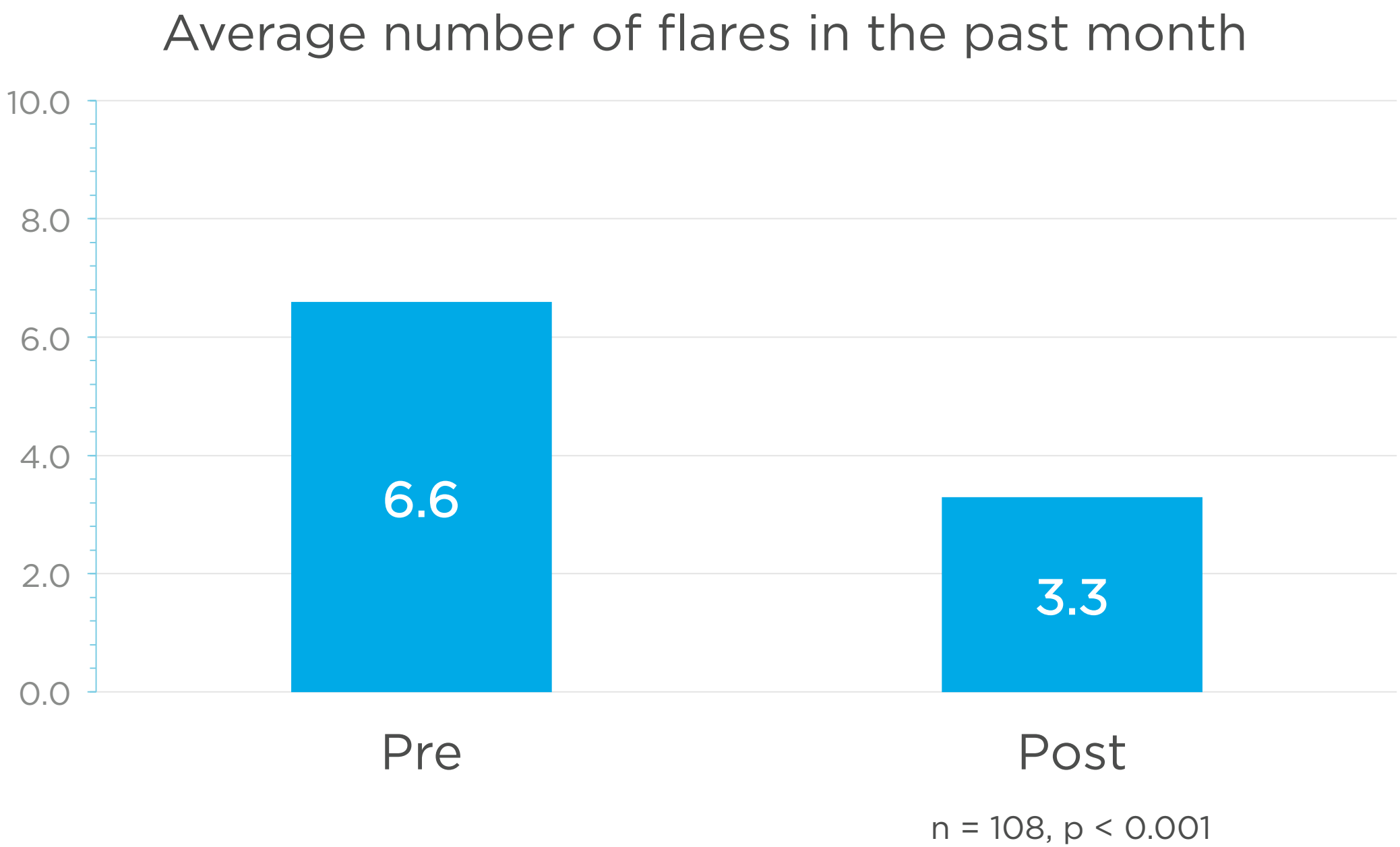
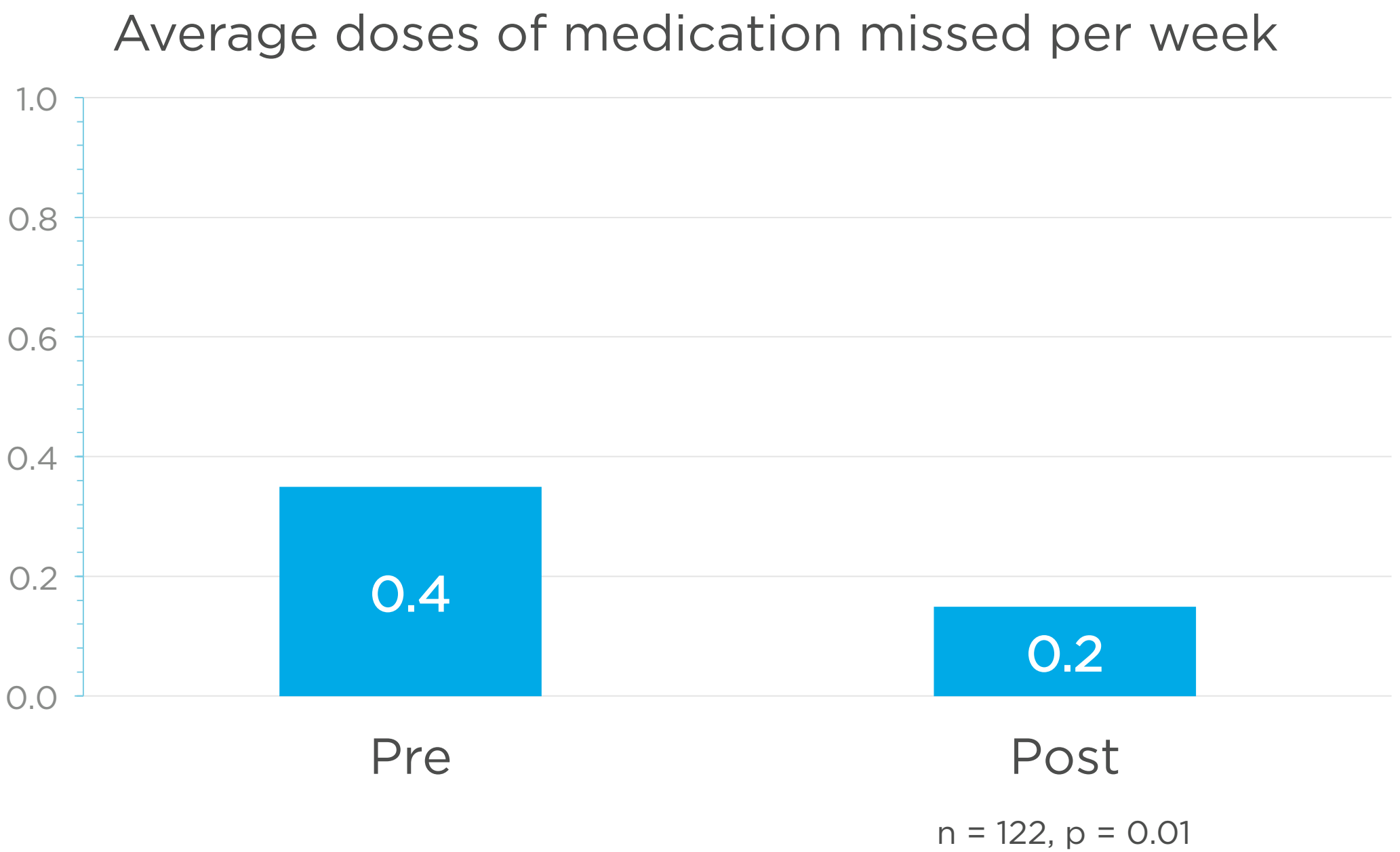


Figure 5: Medication Adherence



## Key Findings

Patients with RA who participated in the 12-week digital health coaching program on average:

- Gained a 13.2% increase in their physical health as reported by the PROMIS Global-10 questionnaire (average pre score = 36.6 vs average post score = 40.6, p < 0.001).
- Gained a 16.1% increase in their mental health as reported by the PROMIS Global-10 questionnaire (average pre score = 41.4 vs average post score = 47.6, p < 0.001).
- Reported a 50% reduction in the number of flares they experienced in the previous month (pre = 6.6 vs post = 3.3, p < 0.001).
- Observed a 50% increase in medication adherence by missing fewer doses each week (pre = 0.4 vs post = 0.2, p = 0.01).
- Experienced a body-mass index (BMI) reduction of 0.55 kg/m<sup>2</sup> (pre = 31.4 vs post = 30.9, p < 0.001).

## Conclusions

Study results suggest that a digital, patient-centered health coaching program is an effective solution in improving both physical and mental health of patients with Rheumatoid Arthritis, as well as an effective intervention in improving medication adherence.

## More Information

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