

Fall 12-1-2021

Maintaining Physical Activity During COVID-19: The Influence of Psychosocial Variables in Individuals with Back Pain

Heidi Stabbert

Chapman University, stabbert@chapman.edu

Follow this and additional works at: https://digitalcommons.chapman.edu/cusrd_abstracts



Part of the [Behavior and Behavior Mechanisms Commons](#), [Other Psychiatry and Psychology Commons](#), [Other Rehabilitation and Therapy Commons](#), [Psychological Phenomena and Processes Commons](#), and the [Virus Diseases Commons](#)

Recommended Citation

Stabbert, Heidi, "Maintaining Physical Activity During COVID-19: The Influence of Psychosocial Variables in Individuals with Back Pain" (2021). *Student Scholar Symposium Abstracts and Posters*. 486.
https://digitalcommons.chapman.edu/cusrd_abstracts/486

This Poster is brought to you for free and open access by the Center for Undergraduate Excellence at Chapman University Digital Commons. It has been accepted for inclusion in Student Scholar Symposium Abstracts and Posters by an authorized administrator of Chapman University Digital Commons. For more information, please contact laughtin@chapman.edu.



Maintaining physical activity during COVID-19: the influence of psychosocial variables in individuals with back pain



Heidi Stabbert, Chapman University

Advisor: Dr. Jo Armour Smith, DPT, Chapman University

What factors contribute to the highly individualistic pain trajectories among people with persistent low back pain?

Analyzed how psychosocial variables from a survey taken prior to COVID-19 lockdown varied between individuals who had adaptive vs. maladaptive pain management responses during lockdown.

Positive pain management adaption was associated with lower depression, lower negative affect, and a greater duration of symptoms. Also trended towards better physical and environmental quality of life.

Overview and Background

- ❖ Stressor events, such as COVID-19, may trigger adaptive or maladaptive pain management strategies among individuals with persistent low back pain (LBP).
- ❖ For individuals with persistent LBP, **physical activity (PA)** has been shown to be a beneficial pain management strategy.

Methods

- 25 individuals with persistent LBP (age 22.4 (3.4) years, 7m, 18f) from an existing longitudinal cohort.
- Participants completed a baseline survey prior to COVID-19.
- The survey quantified demographics, pain severity, frequency, and duration. Additionally, the Physical Activity Scale, the WHOQOL-Bref physical, psychological, social, and environmental quality of life subscales, the Fear Avoidance Beliefs Questionnaire, the Hospital Anxiety and Depression Scale, and the Trait Affect scale.
- Participants completed follow-up surveys for 18 months.
- **During COVID-19 lockdown (5/'20-1/'21), a Likert-type question was added to the follow-up surveys to assess the impact of COVID-19 on PA.**
- The cohort was dichotomized into individuals reporting the same or more PA (MPA) and those reporting less PA (LPA).
- Baseline characteristics compared using independent t-tests, Mann-Whitney U tests and effect sizes (Cohen's d).

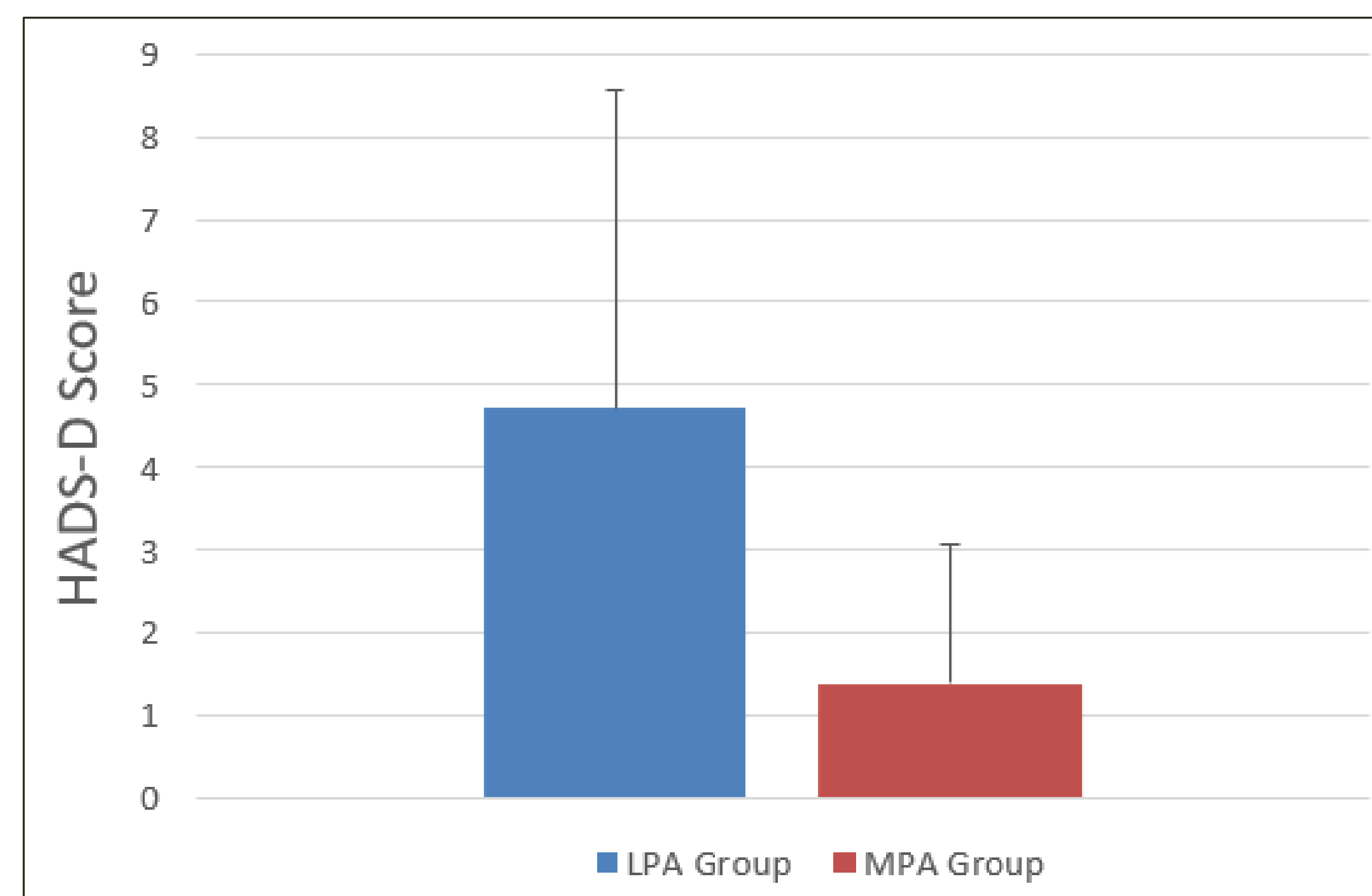


Figure 1: Comparison of depression, using the Hospital Anxiety and Depression Scale (HADS-D), between individuals reporting more physical activity (MPA) versus less physical activity (LPA).

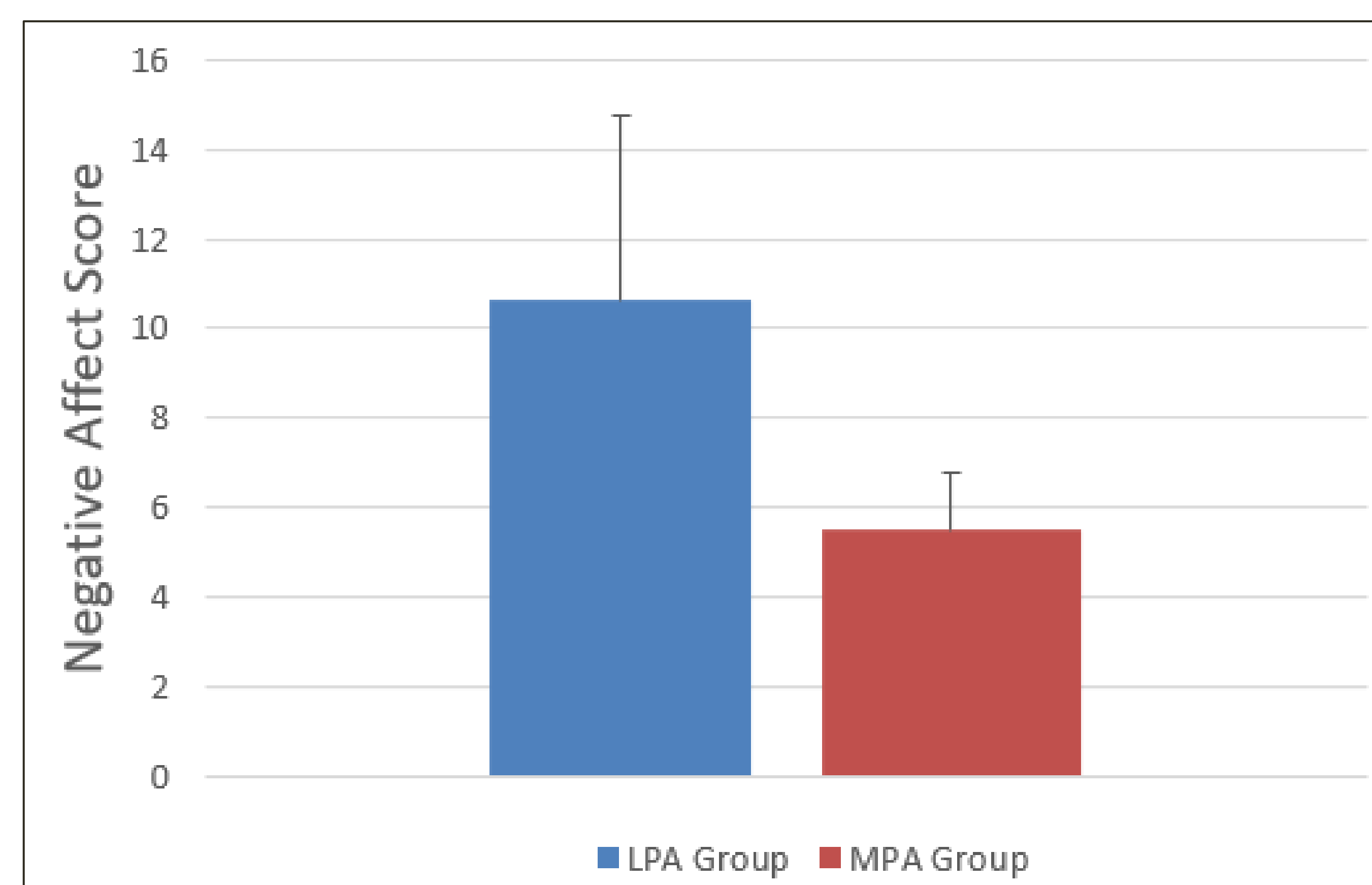


Figure 2: Comparison of Negative affect (fatigue domain) between individuals reporting more physical activity (MPA) versus less physical activity (LPA).

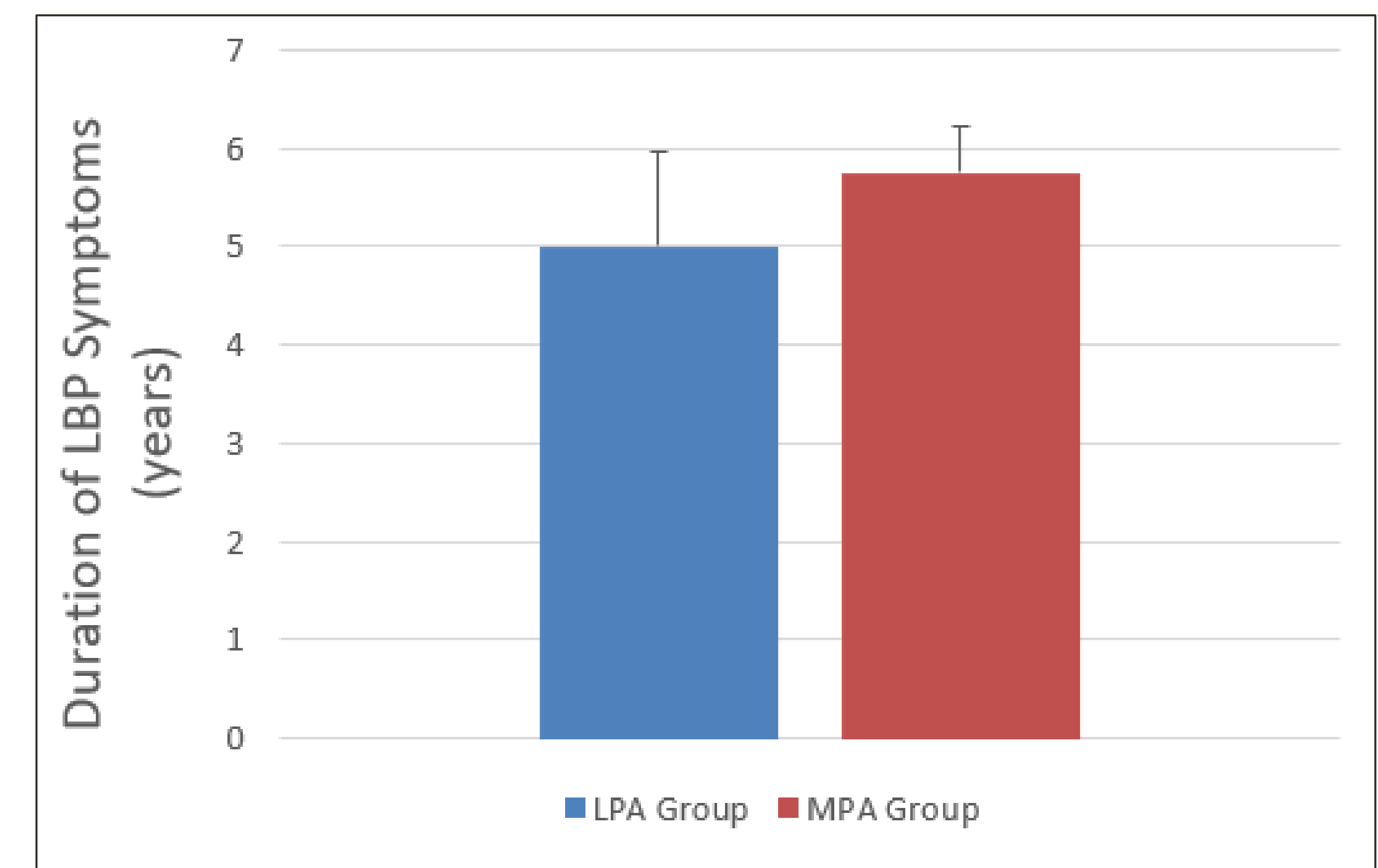


Figure 3: Comparison of duration of low back pain symptoms between individuals reporting more physical activity (MPA) versus less physical activity (LPA).

Results

- LPA group n = 17, MPA group n = 8.
- Depression scores lower in the MPA group ($p=0.006$, $d=1.12$, figure 1)
- MPA group had lower negative affect (fatigue domain) ($p=0.038$, $d=0.86$, figure 2).
- The MPA group had greater duration of LBP symptoms ($p=0.015$, $d=1.16$, figure 3).
- MPA group trended towards higher physical quality of life ($p=0.101$, $d=0.79$) and higher environmental quality of life ($p=0.057$, $d=0.96$) at baseline.

Acknowledgements

This study was supported by funding from NICHD (K01 HD092612) IRB approval number: 1617H094