



# INTRODUCTION

Athletic obligations and pressure to perform both athletically and academically create a stressful environment for collegiate athletes, contributing to rising rates of student-athlete mental illness (Rice et al., 2016). Athletes, who are affected by similar barriers to care as the general population, often experience additional difficulties due to time conflicts and stigmatization perpetuated by sports culture. Furthermore, no standard model exists to treat studentathletes, leading to a lack of clarity in terms of the most effective strategies and interventions for promoting mental health among this population. Mood Lifters, a biopsychosocial mental wellness program, has been shown to improve mental health in adults and senior citizens (Votta & Deldin, 2022; Roberts et al., 2022). This study examines the efficacy of the adaptation of the original program for student-athletes, hypothesizing that the Mood Lifters - Athlete version would improve collegiate athletes' anxiety and depression.

# METHODS

Participants included fifty-two student-athletes recruited through The Invisible Opponent, an organization focused on studentathlete mental health awareness, and directly through an R1 University Athletic Department. To determine the efficacy, repeated-measures analysis of variance (ANOVAs) was conducted to evaluate the change in self-reported assessments of well-being at the start and end of the intervention.

Mood Lifters consist of 15 weekly one-hour meetings held in person or virtually via Zoom. Groups are led by a pair of peer facilitators (i.e., individuals who had previously participated in the program) who have completed Mood Lifters extensive online training. Prior to beginning the program, participants complete a series of questionnaires as a baseline assessment (T1). Each meeting begins with a check-in questionnaire used to assess current mood; then, peer leaders introduce the meeting topic that falls under a specific biopsychosocial domain (i.e., behavior, sleep, mind, mood, social, and body). Peer leaders introduce new strategies for improving one's mental health, all of which are derived from evidence-based therapies and facilitate group discussion. At the end of each meeting, participants set goals on how to implement these new strategies; they track the completion of personal goals through the Mood Lifters' "point" system (e.g., For the Exercise meeting, completing 30 minutes of exercise is one "Body" point). This gamified "point" system helps motivate participants and promote behavioral and symptom change. In between the second to last and final meeting, each participant completes the same assessment to determine outcomes (T2).

# Mood Lifters for College Athletes: A Biopsychosocial Approach to Improving Mental Health for Student-Athletes Anthony R. Deldin<sup>1</sup>, Camille Davre<sup>2</sup>, Cecilia Votta<sup>2</sup>, Justin DiSanti<sup>3</sup>, Patricia Deldin<sup>2</sup> Loyola University Chicago<sup>1</sup>, University of Michigan<sup>2</sup>, Duquesne University<sup>3</sup>

# Table 1

Baseline demographic information for Mood Lifters participants

Variable		Full sample $(n = 52)$ M ± SD or $n$ (%)	Analyzed sample ( $n = 18$ ) M $\pm$ SD or $n$ (%)
Age		$22.6 \pm 6.7$	$20.4 \pm 3.1$
Sex			
	Male	8 (15.4%)	4 (22.2%)
	Female	37 (71.2%)	14 (77.8%)
	Not specified	7 (13.5%)	0
Race			
	Black/African American	0	0
	Caucasian/White	43 (82.7%)	18 (100%)
	Asian	1 (1.9%)	0
	Did Not Specify	8 (15.4%)	0
Education			
	Graduated High School	7 (13.5%)	6 (33.3%)
	Some College (Including Associate's Degree)	26 (50%)	10 (55.5%)
	Bachelor's Degree	12 (23.1%)	2 (11.1%)
	Graduate Degree	2 (3.8%)	0
	Did Not Specify	5 (9.6%)	0
Sport	In Season		66.7%
	Out of Season		33.4%
	Retired		5.6%

## Table 2

Measure	Pre-Intervention M (SD)	Post-Intervention M (SD) 3.44 (4.033)
Depression (PHQ-9)**	9.0 (5.314)	
Anxiety (GAD-7)*	9.33 (5.790)	5.22 (5.105)
Perceived Stress (PSS)*	22.28 (8.079)	17.33 (7.195)
Social Functioning (SFQ)	7.67 (3.742)	6.78 (4.037)
Self-esteem (SISE)*	3.78 (1.555)	4.78 (1.060)
Flourishing (FLO)	45.11 (4.788)	42.83 (16.465)

# and barriers to care.

With increases in student-athlete suicide and growing mental health concerns, novel strategies for improving mental health in college athletes should be prioritized.5 This study demonstrates the potential for Mood Lifters as a promising mental health program for student athletes. Other adapted programs, such as Mood Lifters for Seniors, have demonstrated the benefits of tailoring meeting content to fit the unique concerns and challenges faced by a specific population. Providing affordable and remote care led by peer leaders, Mood Lifters serves to increase the accessibility of mental healthcare to student-athletes, despite their busy schedules and heightened levels of stigmatization.

# PRACTICAL APPLICATIONS

With its modular format and ability to be frequently updated, Mood Lifters is a dynamic program that provides quality care to participants while also providing a safe and supportive environment. The hope of the Mood Lifter's Athlete's Edition was to not only help student-athletes overcome challenges associated with school and sports but to treat the whole individual, teaching skills that could be applied to one's life outside of sports. In conclusion, Mood Lifters for Athletes appears to be feasible and has promising results for improvement if replicated in a larger trial.



# RESULTS

The purpose of this study was to determine the feasibility and preliminary efficacy of Mood Lifters for Athletes. Promisingly, preliminary efficacy results revealed that the intervention had a significant and large effect on student-athletes depression, anxiety, and self-esteem scores, surpassing the minimal clinically important difference for both depression and anxiety and resulting in a greater than 50% reduction in symptoms which is considered the gold standard in antidepressant research. Despite positive responses for those who stayed, pieces of the program were difficult for participants to engage with, with only 28 of the original 54 participants staying in the program, and only 18 of those who stayed completing the postsurvey. Despite this, there were no statistically significant differences between those who dropped out and those who continued. These results suggest that Mood Lifter's multidisciplinary approach may be an effective treatment option for improving student-athletes mental health symptoms, despite experiencing additional day-to-day stressors

# CONCLUSIONS