



MINDFUL MEDITATION PRACTICE IN FEMALE COLLEGIATE ATHLETES DURING THE MENSTRUAL CYCLE



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Introduction:

Body image has been studied in previous research, but there is a gap in research concerning body image changes during the menstrual cycle phases. Studies compared mood states through a woman's cycle have indicated differences between phases of the menstrual cycle and have made inferences between mood state and body image. Along with the inferences of body image changing during the menstrual cycle, prevention methods need to be identified as suitable ways to improve body image, such as mindful meditation and exercise. These are ideal methods women can utilize in their day-to-day lives. Mindful meditation has been described as brief intervention sessions where individuals listen to someone or an audio recording that utilizes words of affirmation and can include breathing exercises.

Purpose:

The purpose of this study was to examine the effects of a mindful meditation intervention on body image during the late luteal and early follicular phases of the menstrual cycle in collegiate female athletes.

Methods:

This study included 8 female collegiate athletes (20.5 ± 1.8 years, 1.7 ± 0.1 m, 62.4 ± 8.9 kg, $26.4 \pm 6.9\%$) participating in both the control and mindful meditation intervention with each taking 3 weeks to complete. Body image was measured by using 3 surveys, the Self-Compassion Scale, Rosenberg Self-Esteem Scale and the Body Appreciation Scale to compare the control to the intervention. These surveys were taken prior to each of the 3 weeks and at the end of the 3 weeks.

Table 1. Subject Characteristics

Subjects	Age (years)	Height (m)	Weight (kg)	Body Composition (% fat)
8	20.5 ± 1.8	1.67 ± 0.1	62.4 ± 8.9	26.4 ± 6.9

Figure 1.

A comparison of the mean scores in the Self-Compassion Scale between the control and mindful meditation intervention

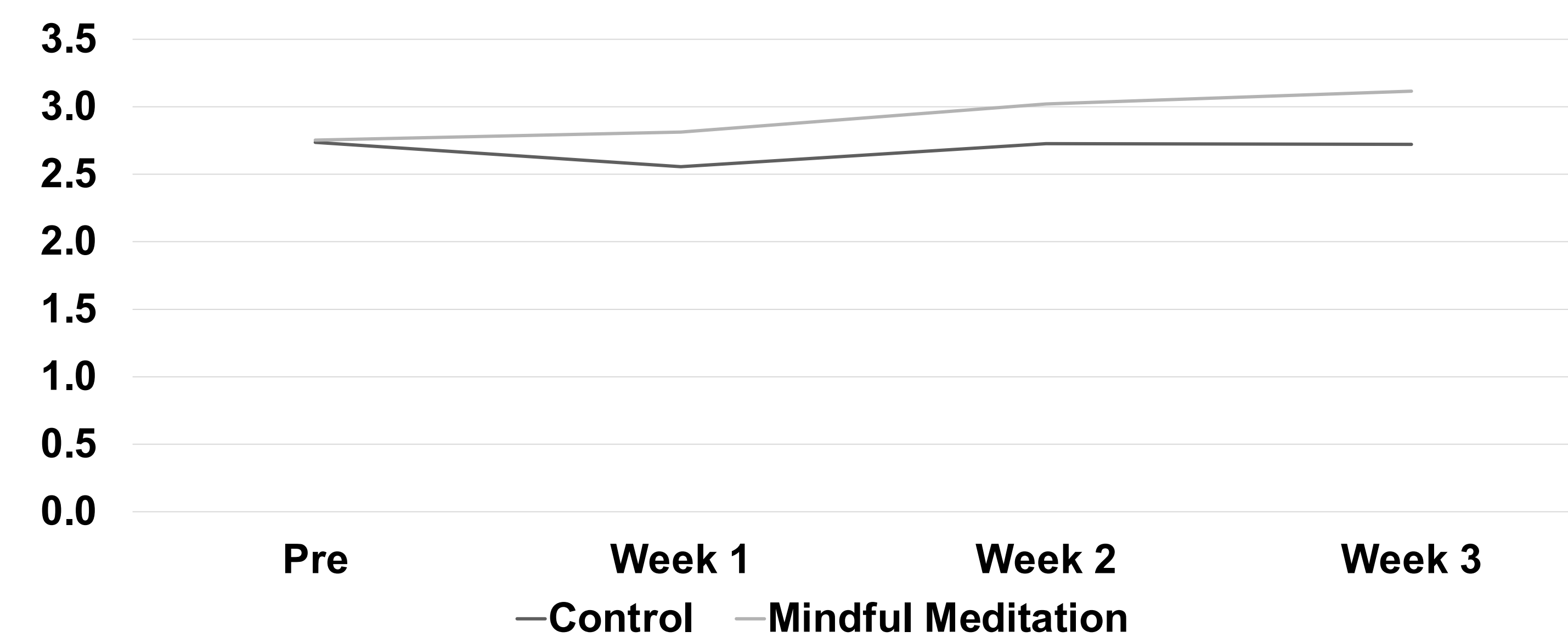


Figure 2.

A comparison of the mean scores in the Rosenberg Self-Esteem Scale between the control and mindful meditation intervention

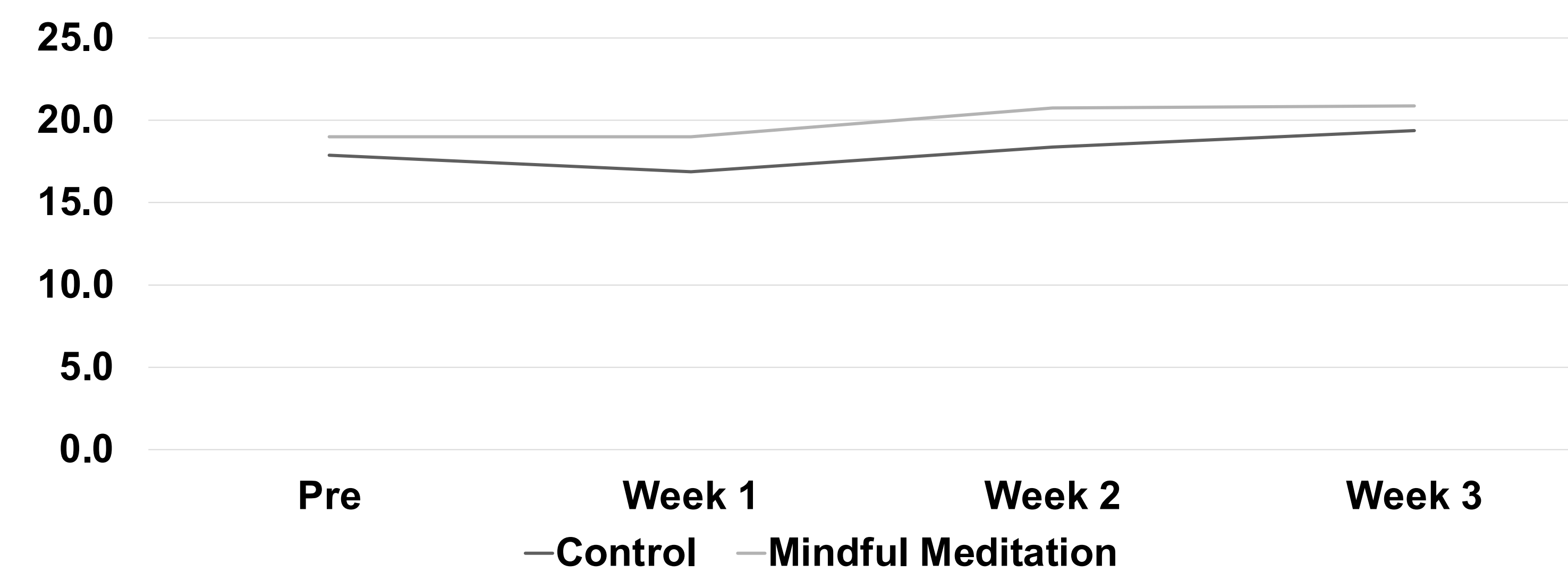
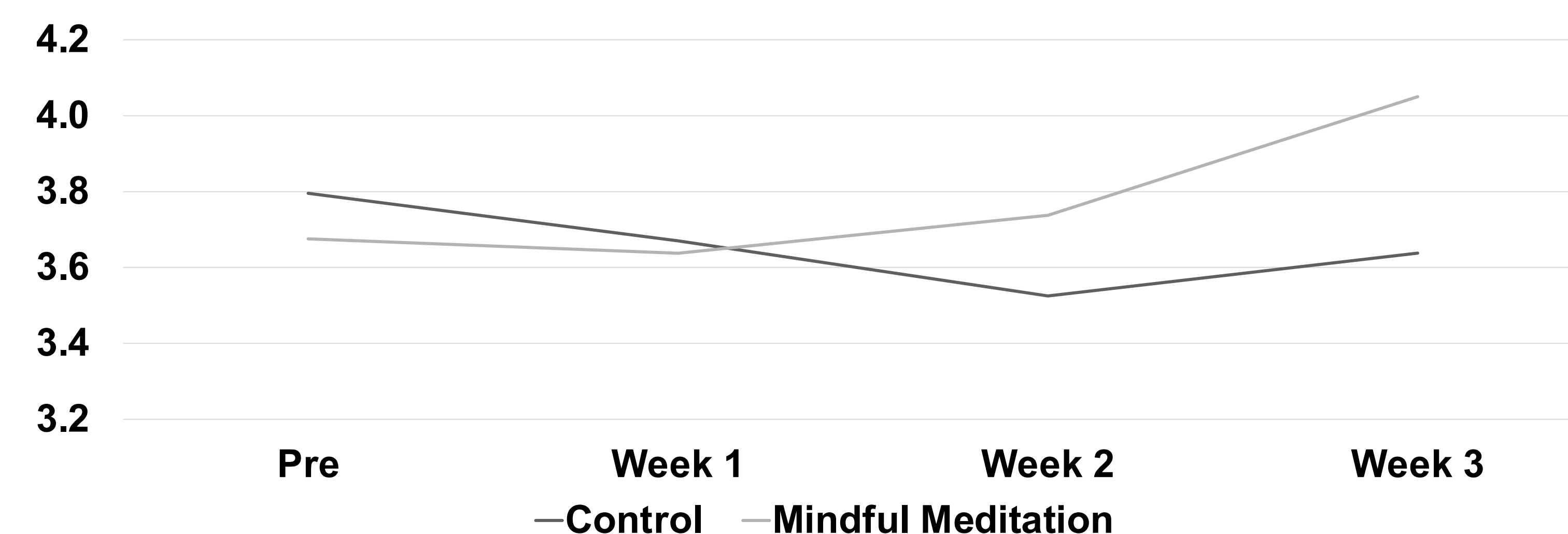


Figure 3: A comparison of the mean scores in the Body Appreciation Scale between the control and mindful meditation intervention



Participants made no change to their lifestyle during the control period. During the mindful meditation intervention, participants completed the intervention with each session lasting approximately 20 minutes for 5 days a week for the 3 weeks of the intervention protocol. Each week of the control was compared to the corresponding week during the intervention for all of the surveys.

Results:

There were no significant differences found in any of the surveys between the control and the intervention. Although there was no significant difference found between the conditions. However, there was a trend of body image improving noted with the addition of mindful meditation.

Conclusions:

The major limitation of this study is the small cohort; the results could potentially be bolstered by an increased in participants. These results along with future research in body image can help to fill in the gaps of female research with the menstrual cycle in consideration.

Practical Applications:

Despite there not being any significant differences found, trends show that body image improved. Mindful meditation could be a useful tool for coaches, strength coaches, and personal trainers to use with female athletes and clients to increase body image and prevent the likelihood of body dissatisfaction.

References:

Albertson E, Neff K, Dill-Shackleford K. Self-compassion and body dissatisfaction in women: a randomized controlled trial of a brief meditation intervention. *Mindfulness* 6(3): 444-454, 2015.

Martin Ginis K, Strong H, Arent S, Bray S, Bassett-Gunter R. The effects of aerobic- versus strength-training on body image among young women with pre-existing body image concerns. *Body Image* 11(3): 219-227, 2014.