Exploring the Impact of Mindful Meditation on Body Image in Recreationally Active Females: A Comparative Analysis of the Luteal and Early Follicular Phases of the Menstrual Cycle

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ABSTRACT

The concept of body image has received attention in previous studies; however, there remains a research gap in investigating the dynamics of body image alterations during different phases of the menstrual cycle. PURPOSE: This study aimed to assess the impact of a mindful meditation intervention on body image among recreationally active females during the late luteal and early follicular phases of their menstrual cycle. METHODS: The research participants were 19 recreationally active females. This investigation utilized a within groups cross-over design consisting of three weeks each for the control and intervention protocols based on phase of the menstrual cycle. Body image was evaluated using three surveys: the Self-Compassion Scale, Rosenberg Self-Esteem Scale, and the Body Appreciation Scale. Questionnaires were administered before and after each three-week protocol. The participants maintained their regular lifestyles during the control phase and during the mindful meditation intervention participants engaged in sessions lasting approximately 20 minutes each, conducted five days a week over the course of three weeks. Wilcoxon Signed Ranks Tests and Cohen's D were used for statistical analysis with $p \le 0.05$ for all analysis. **RESULTS**: A significant difference was found between the groups on the Self-Compassion Scale for Week 1 (p = 0.015) and for Pre on the Body Appreciation Scale (p = 0.038). There were no significant differences between the groups for any other time points. Cohen's D analysis indicated medium effects for the Self-Compassion Scale for Week 1, small effects for Week 2, and medium effects for Week 3. Effects size for the Body Appreciation Scale were medium for Pre, and small for Weeks 2 and 3. Effect size for the Rosenberg Self-Esteem Scale were small for Pre. CONCLUSION: Mindfulness meditation positively influenced self-compassion during the late luteal phase, suggesting a crucial role in mitigating negative body image perceptions in specific menstrual cycle phases. This finding, along with prospective research endeavors, contribute to addressing the existing gaps in female-focused research considering the menstrual cycle.