

Exercise, Body Image and Self-Esteem: A Review

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ABSTRACT: This review of literature examines the relationship between exercise, body-image and self-esteem. The relationship between exercise, body image, and self-esteem has gathered significant focus in studies of psychological and health. This review of literature highlights the evolution of this field's research over several decades. Findings consistently show that regular exercise positively impacts body image and self-esteem across various population reporting greater body satisfaction and improved self-worth. The mechanisms of this impact include physical improvements, psychological benefits, and social interaction, making exercise a multifaceted intervention for enhancing physical self-worth and mood improvements. Variables such as the kind of exercise (aerobic, resistance training), exercise intensity, frequency, and duration may have varying effects on psychological outcomes based on individual characteristics (e.g., gender, baseline psychological status) and environmental factors (e.g., exercise settings, social support). Comprehending the elements that affect physical activity and psychological health results is crucial for creating focused interventions that enhance both physical and mental health. Therefore, this study could significantly contribute to health promotion efforts, fitness programs, and therapeutic approaches designed to enhance mental well-being in young adults. While numerous studies have explored the relationship between working out, body image, and self-regard, gaps remain while understanding the particular mechanisms and moderators involved.

KEYWORDS: Body image, exercise, mental well-being, sports, self-esteem, subjective well-being.

INTRODUCTION

Body image and self-esteem are critical components of mental health and well-being. The perception and attitude toward an individual's physical appearance is body image, it has several components, including look, body type, level of physical fitness, and health. Body Image is greatly influenced by various factors such as one's body weight and size, individual's overall looks, and physical appearance is another important factor affecting one body image state where people dissatisfied with their physical appearance often show low body image state. Self-esteem as stated is one's perception of oneself, and their self-worth. One's feeling of self-worth significantly affects a person's mental health. Many factors including appearance, success, mindset, finances, life experiences influence self-esteem. Individual differences exist in assessing self-esteem in people because people's worth of themselves is dependent upon personal achievements and assessment of their own self and their own life. Exercise is an activity requiring physical effort, carried out to sustain or improve health and fitness. It encompasses various forms of physical activity aimed at enhancing physical fitness and health, has been extensively studied for its multifaceted benefits. Engaging in regular physical activity is important not only for maintaining physical health but also for supporting mental well-being. Previous research has consistently demonstrated that regular exercise can lead to improvements in mood, anxiety reduction, and enhanced self-perceptions, suggesting a positive correlation between physical activity and psychological health.

By examining key studies from the early investigations, this review seeks to elucidate the mechanisms through which exercise influences these psychological constructs. Furthermore, it will aim to fill existing gaps in the literature and propose avenues for future research in order to deepen our comprehension of this significant subject matter. The benefits of exercise for physical health are widely acknowledged, however, its influence on psychological well-being, specifically body image and self-esteem, is garnering growing recognition. Engaging in consistent physical activity has been linked to enhancements in mood, self-esteem, and heightened self-perceptions. By examining the relationships between different types of exercise, exercise frequency, exercise self-efficacy, and these psychological outcomes, this research seeks to provide a comprehensive understanding of how physical activity can enhance students' mental well-being.

RATIONALE

The aim of this review of literature is to understand the relationship between exercise, body-image and self-esteem in people. Body image and self-esteem are critical components of their mental health and overall well-being. Poor body image and low self-esteem



can lead to various negative outcomes, including depression, anxiety, eating disorders, and impaired academic performance. Understanding factors that positively influence these aspects is essential for developing effective interventions and support programs for students. Most of the previous research are cross-sectional which do not examine long-term changes. Longitudinal studies are required to understand how exercise influence body-image and self-esteem in people. There is also a lack of gender specific motivation and psychological mechanism behind the differences.

REVIEW OF LITERATURE

Early research into the psychological benefits of exercise laid the groundwork for later studies. To date, numerous studies have been carried out on these subjects, validating the connection between physical activity and specific aspects of mental well-being, including feelings, character traits, self-perception, and thinking processes. Exercise psychology has confirmed that subjective well-being in college students is closely related to their exercise persistence. It was noted that physical activity can lead to a person's achieving both physical and mental well-being, as well as improving their subjective assessment of their level of satisfaction with life, encouraging pleasant and good peer relation, and improving their overall assessment of their own quality of life. Additionally, empirical study demonstrates that engaging in physical exercise can directly enhance individuals' subjective well-being by producing happy, seamless, and peak emotional responses.

Body Image and Exercise

Research on the effects of exercise on body image suggests that regular participation in physical activities leads to improved body perception. Studies indicate that individuals who engage in consistent exercise routines report greater body satisfaction. Juncal Ruiz-Turrero, Karlijn Massar, Dominika Kwasnicka, and Gill A. Ten Hoor (2022) suggested that self-esteem, body satisfaction, and body image were consistently considerably greater in the Committed Exercisers (high exercise frequency but low exercise fixation). Low levels of body image, average body satisfaction, and low self-esteem were present in the non-exercisers. The findings align with earlier research, which indicates that female athletes experience lower levels of social anxiety related to their bodies and report greater levels of self-worth and contentment with their bodies. In keeping with earlier research, which indicates that athletes' high levels of physical activity and their bodies might more closely approximate the modern ideal of a fit, slender, and trim physique for women. Yao Shang, Hao-Dong Xie and Shi-Yong Yang (2021) in their research established that the relationship between exercise and college students' subjective well-being is mediated by their body image. Conversely, exercise has a positive impact on college students' body image disorders. Thus, the "bridge" that connects physical exercise with subjective happiness may be shaped by one's body image. A meta-analysis by Alleva et al. (2015) revealed that exercise significantly improves body image. Resistance training has been shown to improve body image, particularly in women, by increasing muscle tone and reducing body fat. Slater and Tiggemann (2011) conducted research focusing on body image and its relationship with participation in physical activity and sports. The study showed that there was no significant impact among gender differences, highlighting that participation in sports activities help in promotion and improvement of subjective well-being, body image as well as self-esteem. Campbell and Hausenblas (2009) investigated insight of body image and the impact of exercise on contentment with one's body. They investigate the importance of exercise in promoting positive body image by focusing on exercise intervention and health improvements rather than condition which were controlled. Their work has practical implications for designing exercise interventions that enhance mental health and well-being. They advocate for personalized approaches that consider individual preferences, goals, and psychological needs. This study finds that both aerobic exercises and resistance training positively influence body satisfaction. The researchers emphasized the need to consider exercise modalities when designing interventions aimed at improving body image. Hausenblas and Fallon (2006) examined how regular exercise influences body image perceptions and satisfaction and increased self-esteem. Their research suggests that exercise can improve body image by promoting a focus on physical competence and functional abilities rather than solely on appearance. The findings underscored the role of physical changes and increased body competence in enhancing body. They explored exercise as a therapeutic intervention for improving mental well-being and enhancing body satisfaction and reducing body dissatisfaction.

Self-Esteem and Exercise

Exercise and self-esteem are positively correlated, as is widely known. Frequent exercise is linked to greater levels of self-esteem, especially in groups like teenagers and young adults who may experience problems with body image. The mechanisms encompass

the physiological enhancements resulting from exercise, which bolster one's self-esteem, as well as the psychological advantages, such as less stress and worry. Junwen Shu et al. (2023) in their meta-analysis concluded that college students who engage in aerobic exercise report feeling more confident about their bodies. Enhancement in physical self-esteem is another benefit of increasing exercise intensity. It has been demonstrated that moderate intensity exercise is more beneficial for body self-esteem intervention than small intensity exercise when it comes to aerobic exercise. However, the intensity of exercise cannot be increased beyond a certain point. Whether a college student is obese or extremely fit, aerobic activity increases their body image more. Raising body self-esteem required 90 minutes of exercise compared to 30 minutes, and a 16-week intervention period was more beneficial than a 10-week one. The relationship between exercise and college students' subjective well-being is mediated by their self-esteem. Juncal Ruiz-Turrero, Karlijn Massar, Dominika Kwasnicka, and Gill A. Ten Hoor (2022) suggested that self-esteem, body satisfaction, and body image were consistently considerably greater in the Committed Exercisers (high exercise frequency but low exercise fixation). Low levels of body image, average body satisfaction, and low self-esteem were present in the non-exercisers. The study suggests that college students' subjective well-being and physical activity are mediated by their sense of self-worth. Guo (2019) research made clear that self-esteem is a good indicator of an individual's assessment of their own worth and abilities, as well as their ability to predict subjective well-being. Researchers also agree that physical activity, aerobic exercises or extracurricular; (Zhu et al., 2010), can help people feel better about themselves. McAuley et al. (2005) and his colleagues examined the psychological mechanism which suggested that these exercise-induced changes in mood and psychological states play a significant role in enhancing self-esteem over time. McAuley et al. conducted longitudinal studies to assess the impact of exercise on self-worth. They found engaging in exercise programs is associated with long-term improvements in self-esteem, particularly when exercise becomes a regular part of one's lifestyle. McAuley and colleagues explored how self-efficacy beliefs influence motivation for exercise and physical activity participation. Their research highlighted the importance of self-efficacy in sustaining exercise behaviours over time, emphasizing higher self-efficacy helps in maintaining regular exercise routines which also benefits mental and emotional well-being. Fox (2000) did a comprehensive review highlighted that regular physical activity leads to improvements in self-perceptions and self-esteem across various populations, including university students and people of different age and backgrounds. Fox suggested that exercise can positively impact both global and domain-specific self-esteem, depending on how individuals perceive their competence and achievements in various life domains and integrating exercise as a positive lifestyle intervention for enhancing psychological health and self-worth across diverse populations.

Early research into the psychological benefits of exercise laid the groundwork for later studies. To date, numerous studies have been carried out on these subjects, validating the connection between physical activity and specific aspects of mental well-being, including feelings, character traits, self-perception, and thinking processes. Exercise psychology has confirmed that subjective well-being in college students is closely related to their exercise persistence. It was noted that physical activity can lead to a person's achieving both physical and mental well-being, as well as improving their subjective assessment of their level of satisfaction with life, encouraging pleasant and good peer relation, and improving their overall assessment of their own quality of life. Additionally, empirical study demonstrates that engaging in physical exercise can directly enhance individuals' subjective well-being by producing happy, seamless, and peak emotional responses.

CONCLUSION

The literature examined presents strong evidence supporting the beneficial effects of exercise on body image and self-esteem. Consistent engagement in physical activity, such as aerobic exercises and resistance training, has been linked to enhanced mood, decreased anxiety, and boosted self-esteem. These benefits extend to enhanced body image perceptions, characterized by greater body satisfaction and reduced dissatisfaction with physical appearance. The literature strongly supports the notion that regular exercise has a positive impact on body image and self-esteem. By improving physical fitness and mental well-being, exercise serves as a valuable intervention for individuals looking to enhance their self-perception.

The impact of exercise on body image and self-esteem varies between genders and suggest that women may experience more pronounced improvements in body satisfaction compared to men and highlighting that women may experience greater negative body image than men. Psychological mechanisms underlying these effects include distraction from negative body thoughts, social interactions facilitated by group exercise settings, and improved physical self-perceptions driven by increased physical activity levels.

FURTHER IMPLICATIONS

This review highlights the critical role of exercise in enhancing body image and self-esteem, with implications for health promotion, mental health interventions, and personalized fitness programs. Understanding how factors such as exercise type, intensity, and social environment influence psychological benefits can inform targeted interventions for diverse populations. Integrating physical activity into therapeutic approaches may help address body dissatisfaction and low self-esteem. Future research should explore long-term effects, demographic differences, and underlying mechanisms to refine exercise-based mental health strategies. Additionally, variations in outcomes based on demographic factors, including gender, age, and cultural background, remain underexplored. Most research focuses on general populations, with limited studies examining marginalized or clinical groups. Furthermore, the long-term sustainability of exercise-related psychological benefits is unclear, as few longitudinal studies track changes over extended periods. Future research should further explore specific exercise modalities, durations, and intensities to optimize their effects on psychological outcomes. Much of the existing research focuses on Western populations, necessitating studies in diverse cultural contexts. Addressing these gaps will provide a more comprehensive understanding of how exercise contributes to psychological well-being.

REFERENCES

1. Alleva, J. M., Sheeran, P., Webb, T. L., Martijn, C. and Miles, E. (2015). A Meta-Analytic Review of Stand-Alone Interventions to Improve Body Image. *PLOS ONE* 10(9): e0139177. <https://doi.org/10.1371/journal.pone.0139177>
2. Campbell, A., & Hausenblas, H. A. (2009). Effects of exercise interventions on body image: A meta-analysis. *Journal of Health Psychology*, 14(6), 780-793. <https://doi.org/10.1177/1359105309338977>
3. Fox, K. R. (2000). The influence of exercise on self-perceptions and self-esteem. In S. J. H. Biddle, K. R. Fox, & S. H. Boutcher (Eds.), *Physical activity and psychological well-being* (pp. 88 - 117). Routledge. https://www.researchgate.net/publication/267623155_Self-esteem_self-perceptions_and_exercise
4. Guo, C. H. (2019). The relationship between college students' egocentrism and subjective well-being: the mediating effect of self-esteem. *Studies of Psychology and Behavior* 17, 546–552. <https://psybeh.tjnu.edu.cn/EN/Y2019/V17/I4/546>
5. Hausenblas, H. A., & Fallon, E. A. (2006). Exercise and body image: A meta-analysis. *Psychology and Health*, 21(1), 33-47. <https://psycnet.apa.org/doi/10.1080/14768320500105270> <https://doi.org/10.1177/1359105309338977>
6. Turrero, J. R., Karlijjn, M., Dominika, K. and Gill, A. Ten Hoor. (2022) The Relationship between Compulsive Exercise, Self-Esteem, Body Image and Body Satisfaction in Women: A Cross-Sectional Study. *Int J Environ Res Public Health*. 19(3): 1857. <https://doi.org/10.3390/ijerph19031857>
7. Shu, J., Lu, T., Tao, B., Chen, H., Sui, H., Wang, L., Zhang, Y., Yan, J., (2023). Effects of aerobic exercise on body self-esteem among Chinese college students: A meta-analysis. *PLOS ONE* <https://doi.org/10.1371/journal.pone.0291045>
8. Koyuncu M., Tok S., Canpolat A.M., Catikkas F. Body image satisfaction and dissatisfaction, social physique anxiety, self-esteem, and body fat ratio in female exercisers and nonexercisers. *Social Behavior and Personality: an international journal (SBP Journal)*, 2010; 38:561–570. <https://doi.org/10.2224/sbp.2010.38.4.561>
9. McAuley, E., Elavsky, S., Motl, R. W., Konopack, J. F., Hu, L., & Marquez, D. X. (2005). Physical activity, self-efficacy, and self-esteem: Longitudinal relationships in older adults. *Journal of Gerontology: Psychological Sciences*, 60B(5), P268-P275. <https://doi.org/10.1093/geronb/60.5.P268>
10. Tiggemann, M., & Slater, A. (2014). Netweens: The internet and body image concerns in preteenagers girls. *The Journal of Early Adolescence*, 34(5), 606–620. <https://doi.org/10.1177/0272431613501083>
11. Shang, Y., Xie, H. D., and Yang, S. Y., (2021). The Relationship Between Physical Exercise and Subjective Well-Being in College Students: The Mediating Effect of Body Image and Self-Esteem. *Front. Psychol., Sec. Movement Science*. <https://doi.org/10.3389/fpsyg.2021.658935>
12. Zhu, F. S., Yan, J., Xu, K. Y., and Chen, A. G. (2010). Effects of aerobics exercise on mental health of female college students and its psychological mechanism. *Journal of Capital University of Physical Education and Sports*, 22, 76–80. <https://doi.org/10.14036/j.cnki.cn11-4513.2010.06.004>