

Research Paper

## The Effect of Weight Training on Body Esteem and Psychological Well-Being

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### ABSTRACT

This research explores how weight training affects body esteem and psychological well-being in individuals aged 20 to 35, comparing regular weight trainers to non-trainers. Using a cross-sectional design with 143 participants, including 71 males and 72 females, the study employs validated measures and statistical analyses like t-tests. Surprisingly, no significant differences were found in body esteem or psychological well-being between weight trainers and non-trainers, challenging initial assumptions. However, limitations such as the small sample size and the lack of a specific time frame for training engagement were noted, suggesting the necessity for more comprehensive studies considering various well-being influencers beyond weight training alone. The study acknowledges potential impacts from other activities, social support, and factors like muscle dysmorphia on well-being, emphasizing the need for holistic approaches to promoting well-being among physically active individuals.

**Keywords:** *Weight Training, Body Esteem, Psychological well-being*

The quest for holistic well-being covers not only physical fitness but also mental and emotional well-being. This thesis explores the significant influence of weight training on individuals' body image and overall mental well-being.

### Weight Training

Weight training is a vital part of holistic well-being, enhancing physical and psychological health (Box et al., 2021). It involves training muscles against resistance, enhancing strength, endurance, and overall fitness (Vasudevan & Ford, 2021). Organizations like ACSM endorse weight training for its benefits, including improved physical performance, fall prevention, and addressing conditions like osteoporosis in post-menopausal women. However, barriers exist, particularly for women, highlighting the need for tailored approaches (Louw et al., 2012). Weight training empowers individuals physically and enhances body esteem, promoting strength and satisfaction with physical appearance.

### Body Esteem

Body esteem is a crucial factor in mental health and self-esteem. Social comparisons, influenced by social media, can intensify this impact. Objectification Theory suggests that

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societal objectification can reduce body esteem, especially in media contexts (Tantleff-Dunn & Thompson, 2011). Self-Determination Theory suggests that activities like weight training can positively impact self-perception and well-being (Dunaev et al., 2018). The Body Image Resilience Model suggests interventions prioritizing self-care and self-acceptance to enhance body esteem and psychological well-being (Tylka & Wood-Barcalow, 2015). Cultural influences, such as upward social comparison in Asian cultures, also affect body esteem. Physical activity, like weight training, can improve body image perceptions and self-esteem, contributing to subjective well-being. Further research is needed to fully understand this relationship.

### Psychological Well-Being

Psychological well-being is a crucial aspect of life satisfaction, influenced by various theories such as Ryff's model, Subjective Well-Being, Self-Determination Theory, Positive Psychology, Resilience Theory, mindfulness practices, body image, physical activity, and weight training (Ryff & Keyes, 1995). These theories emphasize autonomy, personal growth, positive relations, resilience, coping mechanisms, mindfulness, body image, physical activity, and weight training. These theories aim to understand how weight training impacts body esteem, mood, self-esteem, and overall psychological well-being, contributing to holistic health improvement efforts. The study aims to explore how weight training influences these aspects, contributing to holistic health improvement efforts.

## REVIEW OF LITERATURE

Vasudevan and Ford (2021) conducted a systematic review on women's motivations and barriers in strength training (ST). They analysed 20 studies with 402 participants, finding common barriers such as negative comments, demotivation, and gender stereotypes. Social support, improvements like weight loss, and programs highlighting women's valued advantages were noted as motivators, emphasizing the need for gender-friendly gym environments and reduced criticism to enhance women's participation in ST.

Shang et al. (2021) investigated the relationship between physical exercise and subjective well-being in 671 college students majoring in science and engineering in Sichuan, China. Their study found that higher levels of physical activity correlated positively with subjective well-being across dimensions and that body image and self-esteem acted as complete mediators between exercise and well-being.

You and Shin (2019) studied 1127 Korean adolescents, focusing on self-concept clarity and external influences (media, parents, peers) regarding body esteem and thin-body ideal internalization. They found that high self-concept clarity, low external influences, and low internalization of the thin-body ideal were positively associated with body esteem, with gender differences observed.

Lawal et al. (2019) investigated the impact of attitudinal factors, anxiety, and body esteem on adolescent girls' attitudes towards menstruation. They found that lower anxiety levels were associated with a positive menstrual attitude. Body esteem, particularly related to appearance, influenced attitudes towards menstruation, with higher body esteem correlating both positively and negatively with attitudes. Overall, body esteem and low anxiety were identified as key factors influencing menstrual attitudes in adolescent girls.

Bustos et al. (2019) studied how body dissatisfaction, body image, and BMI mediate the relationship between physical activity and self-concept in adolescents. Using a sample of 652

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Spanish students aged 12-17, they employed questionnaires and structural equation modeling to examine these relationships and their impact on self-value and mental well-being among adolescents.

### **METHODOLOGY**

#### *Aim*

To assess the effect of weight training on body esteem and psychological wellbeing: a comparative study between regular weight trainers and non-weight trainers.

#### *Objective*

- To assess the effect of weight training on body esteem and psychological wellbeing.
- To assess the difference between body esteem of weight training practitioners and non-weight training practitioners.
- To assess the difference between psychological well-being of weight training practitioners and non-weight training practitioners.

#### *Hypothesis*

- There will be a positive significant difference between the body esteem of Weight training practitioners and non-weight training practitioners.
- There will be a positive significant difference between the psychological well-being of Weight training practitioners and non-weight training practitioners.

#### *Tools to be used*

- Body Esteem Scale for Adolescents and Adults (BESAA)
- Ryff Scales of Psychological Well-Being Scale- Short Version

#### **Research Design - Experimental Design**

#### *Sample Size*

Target population

- Sample Size – 143
- Male – 71
- Female – 72
- Sampling – Purposive sampling
- Age range – 20-35 year

#### *Variables*

**Independent Variable-** Weight Training Participation.

**Dependent Variable -** Body Esteem and Psychological well-being.

#### **Inclusion Criteria**

- Both males and females between the age group of 20-35 years.
- Those who participate in weight training (weighted machines, free weights, body weight) 2-3 times a week at least for the past 6 months as part of their fitness regimen and those who do not engage in weight training.

#### **Exclusion Criteria**

- Individuals below the age of 20 or above the age of 35.
- Individuals not giving consent for the study.

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- Inability to understand or respond to questions in the English language.

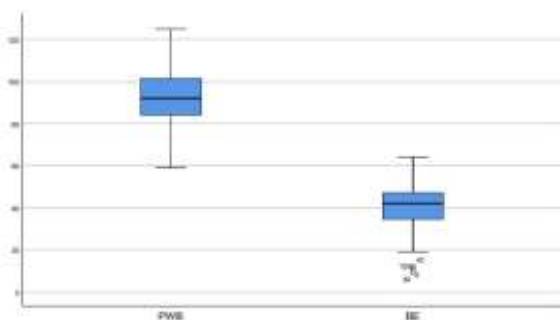
### *Statistical Tests to be Used*

- **Independent T-Tests:** Used to compare means between two groups.

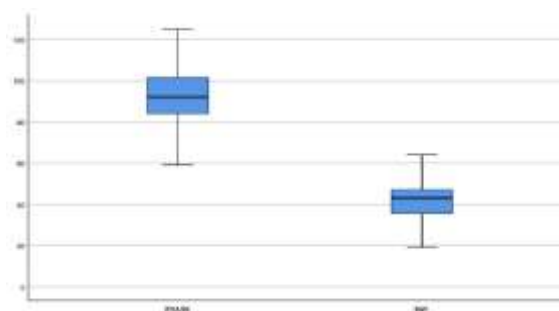
## RESULTS/DISCUSSION

### *Weight training participation*

Following Graphs- Indicate the outliers for the dependent research variables which are Body Esteem (BE) and Psychological Well-Being (PWB)



**Figure 1** Box plot representing the data outliers in study variables



**Figure 2** Box plot representing the data for study variables after removing outliers

Following Tables - Indicate a comparison between the means of Body esteem and psychological well-being of Weight Training Participants

**Table 1** Normality test among participants for study variables

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PWB	.054	139	.200 <sup>*</sup>	.993	139	.678
BE	.097	139	.003	.981	139	.053

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 1 represents the normality test statistics among the study variables. The Shapiro-Wilk Sig. index indicates that the data for the study sample was normally distributed for PWB and BE suggesting a parametric condition.

**Table 2** T test between weight trainers (1) and non-weight trainers (2) across study variables

	Mean	SD	T	Sig. (2 tailed)	Result	
PWB	weight trainers	91.11	12.05	.55	.57	NS
	non-weight trainers	92.27	12.35			
BE	weight trainers	40.86	10.30	.19	.84	NS
	non-weight trainers	41.17	7.66			

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Table 2 represents the t statistics between weight trainers (1) and non-weight trainers (2) on PWB and BE. There is no significant difference in the PWB and BE between the two sample groups.

The study examined the impact of weight training on body esteem and psychological well-being in individuals, comparing regular weight trainers to non-trainers. Analysis involved 143 participants aged 20-35, with statistical tools such as box plots and T-tests employed. Outlier cases 2, 20, 42, and 105 were identified, reducing the sample size to 139. Figure 1 and 2 represent a box plot distribution of data for the study variables of body esteem and psychological well-being, including outliers. Table 2 shows the mean difference in psychological well-being and body esteem between weight trainers and non-weight trainers. The mean scores for psychological well-being were 91.11 for weight trainers and 92.27 for non-weight trainers, while body esteem scores were 40.86 for weight trainers and 41.17 for non-weight trainers. Surprisingly, no significant differences were found in psychological well-being or body esteem between weight trainers and non-trainers.

### **Limitations**

The study acknowledged limitations, notably the small sample size and unspecified time frames for weight training engagement, possibly affecting data reliability. Other physical activities' potential influence on well-being was recognized, citing Jimenez et al. (2022) regarding significantly higher psychological well-being scores in individuals engaging in activities beyond weight training. Additionally, social support's diverse impact on well-being was noted, referencing Golaszewski and Bartholomew (2019) on its multifaceted nature. Furthermore, the study acknowledged factors like muscle dysmorphia among weight trainers (Kramer, 2013), highlighting the complexity of individual differences impacting outcomes. Despite the non-significant findings, the study underscores the necessity for larger studies encompassing various well-being influencers beyond weight training alone.

## **CONCLUSION**

The study compared the impact of weight training on body esteem and psychological well-being among regular and non-weight trainers. Results showed no significant difference between the two groups. Other physical activities, such as swimming and martial arts, may contribute to positive well-being. Muscle dysmorphia, a common disorder among weightlifters, may lead to mental health challenges.

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### **Conflict of Interest**

The author(s) declared no conflict of interest.

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