



A Study on Body Image Anxiety and Psychological Distress among Exercisers and Non-Exercisers

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Abstract

In the 21st century, where physical appearance is closely tied with self-worth, physical exercise plays a critical role in mitigating body image anxiety as well as psychological distress in adolescents and young adults. The current study examined the relationship between body image anxiety, psychological distress, and exercise among young adults. A sample of 62 participants between the age group of 18-25 were divided into two groups (31 exercisers and 31 non-exercisers) and were recorded using The Body and Appearance Self-conscious Emotion Scale (BASES) and Kessler Psychological Distress Scale (K10). The results showed non-exercisers exhibiting higher levels of guilt related to body image. However, no significant difference in the psychological distress was observed between the two groups. The lack of significance suggests the presence of other factors beyond physical activity, such as academic pressure and societal expectations, which

may contribute to psychological distress. The study concludes that while exercise positively improves body image perception, its impact on psychological distress requires further comprehensive research and emphasizes the importance of holistic approach to health, positively impacting body perception and emotional resilience against psychological distress.

Keywords: *Body image anxiety, psychological distress, young adults, exercise, mental health*

Introduction

“Exercise can promote positive body image by enhancing physical health, improving fitness, and fostering a sense of accomplishment and control over one’s body.”

Body image anxiety can be defined as a complex phenomenon that involves an individual's distorted perception of their body appearance, especially weight and shape. This issue is observed largely among adolescents and young adults owing to their vulnerability to succumb to family and peer pressure, societal expectations, media's portrayal of ‘the perfect body image’ as well as their fear of being isolated from the social group.

A study was conducted on undergraduate students at Health Science Faculty UiTM, Malaysia, to identify the relationship between body image perception, body shape concern with body shape dissatisfaction (BSD) using self-reported body mass index (BMI), self-rating Body Silhouette and Body Shape Questionnaire (BSQ-16A). The results showed that almost 48% of females were dissatisfied with their body shape, and 44% of males desired to be heavier (Kamria, Mohan & Ayiesah, 2016). However, another study was conducted on 169 males and 246 females among college students to understand relationship of body image dissatisfaction among male exercisers, male non-exercisers, female exercisers, and female non-exercisers using the Stunkard

scale. The results revealed less dissatisfaction among male exercisers than male non-exercisers and less dissatisfaction among female exercisers than female non-exercisers (Melching et al., 2016). This leads us to hypothesize that exercise does have a positive impact on an individual's body image and potentially resolves their negative self-evaluation.

Psychological distress is a complex state encompassing a range of symptoms such as anxiety, functional impairment, troubling personality traits, and behavioral issues (DSM 5). It reflects an imbalance in an individual's coping mechanisms, leading to symptoms like mood swings, lack of concentration, appetite changes, insomnia, and even more serious concerns such as substance abuse, social withdrawal, and suicidal thoughts. The vulnerability of young adults to emotional turmoil is evident, attributed to factors such as academic stress, career pressures, societal influences on body image, limited mental health support, and substance abuse.

In a study of 1,528 adolescents over four years, researchers explored the relationship between psychological distress and Body Mass Index (BMI). Findings indicated an association between greater psychological distress and higher BMI, although causality couldn't be determined (Kubzansky, Gilthorpe & Goodman, 2012). However, a study involving 2,100 university students in Zebreg employed structured questionnaires to investigate the link between physical activity, physical fitness, and psychological distress. Results demonstrated a correlation between insufficient physical activity, low physical fitness levels, and higher psychological distress, even after adjusting for various other factors (Stefan, Sporis & Kristicevic, 2018). This suggests that promoting regular physical activity might be linked to reduced levels of psychological distress.

Body Image Anxiety

Castonguay et al., (2014) described social physique anxiety as “the anxiety individuals experience when they perceive that others are evaluating their bodies. This form of anxiety is particularly prevalent in contexts where physical appearance is emphasized, such as fitness or sports settings, and it is associated with negative body image, lower self-esteem, and avoidance of physical activity.”

Sabiston et al. (2019) described body image as a “complex and multifaceted construct that encompasses how individuals perceive, think and feel about their physical appearance. It plays a critical role in mental health, influencing behavior, emotions, and overall well-being. Disturbance in body images is linked to various psychological issues, including disordered eating, depression, and anxiety.

Psychological Distress

Lerutla (2000) defined psychological distress as “the emotional condition that one feels when it is necessary to cope with unsettling, frustrating, or harmful situations.”

Decker (1997) and Burnette and Mui (1997) conceptualized psychological distress as “lack of enthusiasm, problems with sleep, feeling downhearted or blue, feeling hopeless about the future, feeling emotional, and feeling bored or a passing interest in things and thoughts of suicide.”

Review of Literature

A study was conducted on 160 undergraduate female students to estimate the range of body image dissatisfaction. The result found that 79% have difficulty accepting their body image even with 87.7% of them being in the normal and underweight category (Pop, 2018). Research was conducted on 614 college students to study exercise behavior, motivation, self-efficacy and Body image anxiety. The results shows that BIA was related to both controlled extrinsic and autonomous extrinsic Self-Determination theory motivational variables, as well as intrinsic motivation suggesting a more intrinsic approach to fostering long-term exercise maintenance (Scioli-Salter et al., 2014).

Research was conducted on 8350 adolescents and young adults in the age range of 16-24 using 12-item General Health Questionnaire (GHQ) to measure psychological distress. The result showed a high level of psychological distress, with girls being more distressed than boys; 41% of girls were classified as mild or moderate cases, compared with 26% of boys (Rickwood & d'Espaignet, 1996). A study was conducted on students enrolled in universities to examine the relationship between college career stage, negative life events, and psychological distress using the life event inventory and several psychological distress scales (depression, anxiety, anger/hostility). The result showed that negative experiences in affiliative opportunities (peer relationships) were most predictive of distress with younger students being more likely to be hostile/angry about negative life events (Jackson & Finney, 2002).

Research was conducted on 156 participants to investigate the relationship between body image, social anxiety and psychological distress among young adults using Body Image Concern Inventory (BICI), Social Interaction Anxiety Scale (SIAS) and Kessler Psychological Distress (K10). The result showed a positive correlation between Body Image and Social Anxiety as well

as in Body Image and Psychological Distress (Luqman & Dixit, 2017). Another research was conducted on 1,112 students at King Abdulaziz University to estimate the prevalence of Body Dysmorphic Disorder (BDD) and identify its association with depression, anxiety, and stress using a validated questionnaire with items on sociodemographic characteristics and body dysmorphic Disorder, as well as the Depression, anxiety, and stress scale - 21 items (DASS 21). The result showed that BDD is relatively common in students of Jeddah and is associated with depression, anxiety, and stress (Hakim et al., 2021).

Purpose

The purpose is to study body image anxiety and psychological distress among exercisers and non-exercisers

Hypothesis

- There will be significant differences between the guilt levels of exercisers and non-exercisers.
- The non-exercisers will have higher guilt levels.
- There will be a significant difference between the psychological distress levels of exercisers and non-exercisers.
- There will be significant difference in the body image anxiety between exercisers and non-exercisers, with non-exercisers showcasing higher levels of body image anxiety.

Method

Sample

A total sample of (N=62), (31 exercisers, 31 non-exercisers) in the age group of 18-25 was collected from the city of Port Blair.

Measures

The Body and Appearance Self-conscious Emotion Scale (BASES): The Body and Appearance self-conscious emotion scale, as developed by Castonguay and colleagues (2014), is a 16-item self-report measure. The BASES contain 4 subscales: shame, guilt, authentic pride, and hubristic pride. Respondents were asked to rate each item on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Kessler Psychological Distress Scale (K10): The Kessler Psychological Distress Scale, as developed by Kessler and Mroczek (1992), is a 10-item self-report measure. Respondents were asked to rate each item on a 5-point scale ranging from 1 (none of the time) to 5 (all of the time).

Procedure

The participants were informed about the purpose of the research, and the questionnaire was filled out through Google Forms; each participant was thanked for their cooperation. Standardized psychological tests were administered to the participants.

Analysis of data

Results

Table 1: *Correlation Matrix*

	SHAME	GUILT	AUTHENTIC PRIDE	HUBRISTIC PRIDE	PSYCHOLOGICAL DISTRESS
SHAME	—				
GUILT	0.676***	—			
AUTHENTIC PRIDE	-0.213	0.016	—		
HUBRISTIC PRIDE	-0.296*	-0.119	0.651***	—	
PSYCHOLOGICAL DISTRESS	0.569***	0.303*	-0.226	-0.095	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 2: *Independent Samples T-Test*

		Statistic	df	p
SHAME	Student's t	-1.169	60.0	0.247
GUILT	Student's t	-2.206	60.0	0.031
AUTHENTIC PRIDE	Student's t	0.680	60.0	0.499
HUBRISTIC PRIDE	Student's t	0.689	60.0	0.494
PSYCHOLOGICAL DISTRESS	Student's t	1.272	60.0	0.208

Table 3: *Group Descriptives*

	Group	N	Mean	Median	SD	SE
SHAME	exercisers	31	8.94	8.00	4.02	0.723

	non-exercisers	31	9.97	10.0	2.82	0.507
GUILT	exercisers	31	9.74	10.00	3.37	0.605
	non-exercisers	31	11.42	12.0	2.57	0.461
AUTHENTIC PRIDE	exercisers	31	11.71	12.00	3.22	0.578
	non-exercisers	31	11.19	11.0	2.74	0.492
HUBRISTIC PRIDE	exercisers	31	11.29	12.00	3.61	0.648
	non-exercisers	31	10.71	11.0	3.00	0.539
PSYCHOLOGICAL DISTRESS	exercisers	31	26.16	25.00	9.71	1.744
	non-exercisers	31	23.42	24.0	7.05	1.266

Discussion of Results

The results found that there is a positive correlation between guilt and shame ($r=0.676$, $p<.01$). The result also found that there is a negative correlation between hubristic pride and shame ($r=-0.296$, $p<.05$) and a positive correlation with authentic pride ($r=0.651$, $p<.001$). Further, we found that psychological distress is positively correlated with shame ($r=0.569$, $p<.001$) and with Guilt ($r=0.303$, $p< 0.5$). The result found that non-exercisers are higher on guilt than exercisers ($t=11.42$). No significant difference was observed between the exercisers and non-exercisers when it came to psychological distress ($t=0.208$). This may be due to various factors beyond the scope of physical activity such as academic stress, peer pressure, social expectations and require further exploration on the subject.

An investigation was conducted to explore the relationship between body image anxiety and psychological distress in individuals who exercise and those who do not. This study aimed to test the hypothesis that individuals who exercise experience lower levels of psychological distress and body image anxiety compared to non-exercisers. The study involved 62 student participants, with 31 classified as exercisers and 31 as non-exercisers. Questionnaires were administered to assess body image concerns and psychological distress among college students. The findings indicated that non-exercisers reported higher levels of guilt compared to exercisers ($t=11.42$), indicating that non-exercisers do have a negative perception of their body image in comparison to exercisers which aligns with the research conducted on 122 college students to assess the role physical activity plays in resilience, self-esteem, and body image. The result indicated that those who engage in regular physical activity and those who do not differ significantly on measures of body image. There was a significant positive correlation between resilience and total physical activity and a significant negative correlation between physical activity at work and body image. It was observed that body image was a significant predictor of self-esteem and resilience influenced the relationship between physical activity and body image (O'Donoghue, 2016). Another similar study was conducted on 219 college students (78 men and 141 women) in the age range of 22 ± 1.9 years to investigate the relationships between body dissatisfaction and self-esteem with social physique anxiety using the social physique anxiety scale, body dissatisfaction scale, and self-esteem scale. The result indicated a positive correlation between social physique anxiety, body dissatisfaction, and body mass index and a negative significant correlation between social physique anxiety and self-esteem (Tsartsapakis et al., 2023).

These findings support that exercise plays a role in improving body image perception and self-esteem. However, it is still under investigation whether an individual's level of physical activity affects their psychological distress.

Conclusion

The current study has several limitations that need to be addressed. One is that the small sample size (N=62) and the homogenous age group of the participants (18-25) may hinder the generalization of the findings as it provides less precise estimates and may not accurately represent the larger population. Second, the participants may have also included bias by manipulating their responses to present socially desirable outcomes. In terms of future research, this study supports the implementation of exercise in daily life activities to improve mental as well as physical health and raise awareness and intriguing questions for further studies. In addition, the insignificant difference in psychological distress level between exercisers and non-exercisers stresses on the need for more in-depth research to account for other factors impacting it.

Some suggestions for future research include the inclusion of physical activity for 30 minutes, 5 days/week to improve overall well-being and boost confidence, as well as incorporating healthy eating habits. Moreover, the habit of intermittent fasting has been observed to improve gut health, potentially leading to the adoption of further healthier habits. Additionally, meditation, positive reaffirmations, and a supportive social group may reinforce the societal perception of “the desired body image.” The present study has enhanced our understanding of the relationship between exercise and body image perception. It is hoped that the current research will stimulate further investigation of this important topic.

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