

BODY DISSATISFACTION AMONG GYM-GOING FEMALES: INTERPLAY OF BMI, DIET PREFERENCES AND STRUCTURED FITNESS ROUTINE

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Abstract

The research study was carried out to study body dissatisfaction among adolescent and young adult female gym-goers. The factors studied were assessing the reasons for joining gym or fitness club, whether they observe any positive modified patterns in their physical bodies, which dietary designs they follow, and what were the reasons for them to follow fitness routine. The difference in body image perceptions with regards to dissatisfaction was also studied between both the groups. The sample population comprised of 200 female gym-goers adolescents and young adults, from various gyms and fitness clubs in Karachi. Their consent was obtained and BMI were recorded, followed by presentation of the study questionnaire that required them to fill up demographics and the BSQ-34 scale. Body Shape Questionnaire (BSQ-34) was used to evaluate the body dissatisfaction in sample. The findings were assessed by using SPSS-23 software with descriptive statistics, t-test, Pearson's Product Moment Correlation Coefficient, Point Biserial Correlation and ANOVA for testing the hypotheses. The results yielded that BMI was significantly associated with body dissatisfaction, the body awareness showed links with body dissatisfaction, the difference was also studied with regards to body dissatisfaction across preferred dietary patterns among the female population of the study.

INTRODUCTION

The construct of Body Image in empirical researches, has brought about multiple insights into the correlates, consequences, treatments and the predictors (Tylka & Wood-Barcalow, 2015). Body image as defined by Cash (2004), is basically a multifaceted construct in psychology that attempts to explain an individual's personal feelings, thoughts, behaviors, and perception regarding their own physical appearance (Cash, 2004). Transcending beyond visually perceived connotation, the construct of body image comprises both the perceptible vision as well as the emotional and cognitive implication the impose to their physical bodies (Thompson et al., 1999). Body image furthermore, endures on a spectrum

from positive body image (identified by acceptance and approval of one's physical body (Tylka & Wood-Barcalow, 2015), through negative body image (signifying relentless dissatisfaction, deformed perception and psychological discomfort) (Grogan, 2021). Due to the strong affiliation of body image with anxiety, depression, low self-esteem and distorted eating patterns, it has been linked with significantly occurring public health concerns in various age groups (K. A. Bailey et al., 2017).

The Body Dissatisfaction basically refers to a person's own perception of his/her own body size, shape and weight revolving around feeling dissatisfied with the appearance (Cash, 1994). The body dissatisfaction is one dimension of negative

body image; that encompasses discrepancies between perceived self and ideal self (Cash & Smolak, 2011). Self-attributed weight stigmatization is the point to which negative, critical stereotypes are applicative to one's own self (Durso et al., 2016). Body dissatisfaction is strongly associated with maladjusted eating patterns for attempting to gain control over body weight or as a coping mechanism for negating emotions within the self (Stice & Shaw, 2003). Body dissatisfaction and weight bias internalization may be string through a common primitive/underlying aspect with different connotations to maladjusted eating patterns (Durso et al., 2016). A research study of body dissatisfaction identified three profiles in women depicting positive and negative body images such as average, dissatisfied, appreciative, and adding to the evidence that there is likelihood for both positive and negative body image perceptions to co-occur with their distinct patterns (Raspovic et al., 2022).

Adolescence and Young Adults Vulnerability

Mental health concerns have been seemingly increasing particularly among younger cohorts through the past two decades (Dowds, 2010). The most familiar ones have been found to be emotional, and behavioral disorders with accelerating disruptions in eating patterns in young females (A. P. Bailey et al., 2014; Fardouly & Vartanian, 2015). Women tend to suffer with these disruptive attitudes in their eating patterns that reflect in their perception of body dissatisfaction, thoughts and emotions and is more commonly described as irregular eating patterns may or may not authorizing any clinical diagnosis (Telch et al., 1998). Research evidence suggests that females falling under the age bracket of adolescence and twenties (A. P. Bailey et al., 2014). Females who undergo these disruptive patterns commonly exhibit transformed behaviors, attitudes, apparent weight issues with their physical bodies (Plateau et al., 2018). These patterns however, may not classify for disorder initially, rather considered to be an aspect of diagnosed eating attitude (Croll et al., 2002). Body dissatisfaction has been found to be commonly

occurring among adolescents with 24%-46% of girls while 12% of adolescent boys (Bucchianeri et al., 2016; Wang et al., 2019). Mainly adolescent girls manifest distress or concern regarding their body images where their main focus remains losing body weight (Gualdi-Russo et al., 2024; Lacroix et al., 2023). These disruptions possibly start occurring at the outset of puberty resulting in a course of transformations that deter them from body ideals; permeating the peer pressure (Foster et al., 2024). These aspects put the adolescent girls at significant risk for developing eating attitudes that may pose harm on their mental and physical health (Galmiche et al., 2019), with high percentages on body weight concerns (D'Anna et al., 2022) (Bonfanti et al., 2025). During the recent years, the body dissatisfaction concerns increased primarily among young adult females because of various risk elements such as physical appearances, making comparison with others, internalization and social conformity (Momeñe et al., 2023) (Jiotsa et al., 2021). These behavioral outcomes may produce multiple mental health challenges such as low self-esteem, mood fluctuations, socializing, (Eck et al., 2022; Lantz et al., 2018). A substantial body of literature maintains that the aforementioned disparity between real and ideal body image is associated with negative emotions with discrepant emotional regulation (Brytek-Matera, 2011; Mason et al., 2019). Thus the disruptions in emotional regulation and negative emotional patterns towards one's own body serve as basic factors for developing body dissatisfaction in adolescents and young adult females (Canals & Arija Val, 2022; Pfit et al., 2020).

Body Mass Index – BMI

Globally, obesity is a considerable health concern in children, adolescents, and adults (Förster et al., 2023). Obesity brings about multiple psychological disparities and negative physical health risks (Breinker et al., 2021; Caprio et al., 2020; Kelsey et al., 2014; Schreckenbach et al., 2021). According to the World Health Organization (WHO), the predominance of obesity has been increased three times globally since year 1975 (*Obesity and Overweight*, n.d.). In

associations with the literature from 1980s and 1990s time, rise in obesity has been 50% among children and adolescents (Mauz et al., 2020). Increased body weights started getting considered as a psychopathological condition with other mental health concerns (Steptoe & Frank, n.d.; Tan et al., 2023). Research studies on eating disorders such as bulimia nervosa and binge eating disorder revealed significant associations with social anxiety, depression, and distress as hazards for developing disruptive eating behaviors like negative body image showed links with obesity (Weinberger et al., 2016). However, many obese people have reported to combat body dissatisfaction issues by engaging themselves in rigorous exercise regimen and dietary changes that in turn reduce their psychological distress (Pudney et al., 2020). A substantial literature body shows the statistical association between mental health issues and obesity more prevalent in female adolescents as compared to other age groups (Brumpton et al., 2013; Kiss et al., 2025). Social ramifications are more influential for females since they go through prejudiced behaviors given their body weight and appearances (Kiss et al., 2025; Urdapilleta et al., 2019), despite having lower BMI as compared to their male counterparts adolescents (Puhl et al., 2008). Adolescent girls are more concerned about their body appearances such as weight, shape and self-image that leads to body dissatisfaction because thinness has long been considered desirable and a standard of beauty and acceptance carried on through ages for females regardless of their age groups (Neighbors & Sobal, 2007; Olatona et al., 2023). Obese and overweight female individuals reported greater dissatisfaction with their bodies as compared to the ones falling under normal ranges of BMI (Webb et al., 2014). Among young adults, there has been found to be more anxiety related to their physical appearances and how to work on it to make according to their ideal body shape (El Ansari et al., 2010). Young adults in order to deal with body dissatisfaction, engage in weight management behaviors including exercises, diet and lifestyle transformations (Olatona et al., 2023; Sirang et al., 2013).

Gym Culture and Exercise Motivation

Regular physical practical exercise routine brings about myriad benefits on psychological and physical grounds (Sallis et al., 2016). Regular workout routines show significant progress in better physical (Lu et al., 2022), mental (Cowley & Schneider, 2025) and psychosocial (Marquez et al., 2020) health in women. Research studies maintain that women who engage in physical exercise routines, account for better health benefits as compared to men resulting in lesser frequency of all-cause mortality as well as decreased risk for developing cardiovascular diseases (Ji et al., 2024). Additionally, following a regular exercise regimen also relieves postpartum indicators (Yuan et al., 2022), backs bone density during perimenopause and post menopause (Mohebbi et al., 2023), and alleviates premenstrual syndrome indicators (Sanchez et al., 2023). With significant emphasis on strength training, there is significant improvement in cognitive functioning (Herring et al., 2011), better stamina building (Vizza et al., 2016), confidence, self-efficacy, managed symptoms of PCOS and body image perceptions in women (Walters & Hefferon, 2020). Consistency is studied to be more in females of all age groups as compared to men of all age groups given the body image concerns that hold more prevalence in females (Guthold et al., 2018, 2020). In accordance with the literature, adolescent and young adult females are more prone toward experiencing distress regarding their body dissatisfaction which significantly impacts their decision making regarding exercise regimen (More et al., 2019; Turnock, 2021). Exercise selection, developing a program according to one's body needs, and consistent adherence to it are deeply influenced by the levels of dissatisfaction with their bodies. The exercises built on patterns that address appearance centered workout (aerobics) are highly linked with more dissatisfaction with one's own body images and self-objectification in women (Tiggemann et al., 2014). Women who engage in resistance training in their regular gym routines, in some instances, report hesitance to lift heavier weights in fear of becoming "too muscular" that might deter them from attaining their idealized body image (Bell et

al., 2024). Hence it is essential to examine exercise as a potential vigilant feature considering that fact that exercise can support improved levels of body image related to women's perceived dissatisfaction (Campbell & Hausenblas, 2009; Carraça et al., 2020) and enrich healthier eating behaviors in females (Bassett-Gunter et al., 2017; Carraça et al., 2013; Hausenblas & Fallon, 2006).

Diet and Mood Connections

A substantial body of research represent that body dissatisfaction during adolescence and young adulthood can be triggered by influence of various sources of exposure such as cultural and social norms, media influences, athlete recruit requirements, personal relationships and media (Hartman-Munick et al., 2020; Mishina et al., 2024). The societies with modern western mindsets have also endorsed certain body shape ideations in females of all ages that revolve around thinness, sharp jawlines, and looking like a certain model-type figure (Grogan, 2016). The female figures from adolescence till young adulthood are expected to present themselves "beautiful" physically which must be slim/thin, with great muscle mass and least inclined towards fat (Campos et al., 2021; Ramos et al., 2025; Silva et al., 2018). The sense of body dissatisfaction in females brings about significant risk factors for relentless pursuit for the ideal body images, disruptive eating behaviors (Aparicio-Martinez et al., 2019) along with energy restricted diet regimes (Silva et al., 2018). Several different types of diet programs with restricted patterns on food have been in practice since a long time that focus on weight loss goals (Oliveira & Souza, 2021; Santiago, Cervato, Mancuso, Rosalino, Chicoli, & Cyrillo, 2020) to deal with body dissatisfaction in females. These restricted energy diet strategies work temporarily and results are short term (Santiago et al., 2020), they bounce back the body weight rather quickly (Pélissier et al., 2023). However, the diet strategies and programs that are built to assist girls and women to work on their appearances, are subject to appropriateness since they are liable to create a sense of failure (in case of non-suitability), uncontrollable cravings for food, distress, guilt (in case of losing control), constant fear of gaining

weight, irritability, anxiety, depression, financial burden and decreased self-esteem (Chew et al., 2022; Eaton et al., 2024; Ramitez Carfdenas et al., 2023). Restricted eating attitudes manifest themselves in long term unhealthy patterns that adversely affect social and psychological life in daily routine along with disrupted self-image (*Diagnostic and Statistical Manual of Mental Disorders*, 2013; Jaruga-Sękowska et al., 2025). The prevalence of these eating attitudes has been found in increased statistics among adolescents and young adults (age ranging from 15-24 years) females, in high schools and college students (Lonergan et al., 2020). Researches maintain that students struggle hard related to their body dissatisfaction due to peer pressure, environmental pressures, difficult family relationships, and influence of social media exposure (Mabe et al., 2014; Saul et al., 2022); if left unnoticed and untreated for longer duration, can result in deteriorating mental and physical health (Lonergan et al., 2020).

However, the available literature and research findings on the occurrence and commonness of disrupted body images, eating patterns and inadequate knowledge on establishing a suitable and workable exercise regimen among adolescence and young adults are alarming and highlights the need for further in-depth research (Hartman-Munick et al., 2022; López-Gil et al., 2023).

The Gap in the Literature

The body dissatisfaction has been renowned subject globally as a public health concern, but pragmatic research examinations within Pakistani and South Asian environments remain particularly narrow and limited (A. N. Khan et al., 2011). The cultural precision related to physical appearances, family pressures, peer pressures, and social standards of beauty ideals in Pakistan recommend/propose that research literature from Western findings may restrain explicit applicability to young female sample of Pakistan (L. Khan et al., 2025). Whereas the narrow/limited literature regarding Pakistani research findings on the topic principally centered around influence of social and mass media as contributing towards body dissatisfaction in

females (Bilal et al., 2021). There is no literature available that focus on the role of rising gym culture, fitness predispositions dietary behaviors, and impact of mood on engaging into impulsive eating attitudes among young Pakistani females. As the gym culture is rapidly emerging among urban women in Pakistan, this depicts a significant and appropriate gap in the existing literature. Consequently the current research study intends to explore/examine body dissatisfaction and its associations with fitness related routines, among adolescent and young adult females going to the gyms in Pakistan, that may contribute towards culturally relevant practical research based evidence to the field of Psychology.

The Study Objectives and Hypotheses

1. To study the relationship between BMI and body dissatisfaction of gym-going females
2. To assess if the reported improvements in body images by the participants are a result of their fitness/gym-going routines
3. To assess the mean differences between dietary choices and body dissatisfaction of the females
4. To study the differences between gym-going adolescent and young adult females with respect to their body dissatisfaction

Hence, it is hypothesized that,

1. There will be a significant relationship between BMI and body dissatisfaction
2. Those who report noticeable changes in their bodies due to fitness routine will experience body dissatisfaction.
3. There will be significant differences in mean body dissatisfaction scores among participants with along the various dietary preferences
4. Adolescents will report significantly higher body dissatisfaction as compared to young adult females' gym goers

Methodology

Research Design

The current study employed a quantitative, cross sectional approach to examine the relationship between body dissatisfaction and its psychological correlates. The entire set of was collected in single

attempt, at one time. The data were analyzed using descriptive statistics, Pearson Product Moment-Correlation Coefficient, t-Test and ANOVA.

Participants

The sample comprised of 200 female gym-goer participants. Adolescent girls' (80) age ranging from 11-19 years and young adult females' (120) age ranging from 20-40 years. The sample was obtained from various gym and fitness clubs of Karachi city, through purposive and snowball sampling techniques.

Instruments/Measuring Tools

The questionnaire consisted of self-developed, close ended questions in the demographic section in order to obtain the basic information of their gym and food preferences, along with getting to know their specific reasons for following fitness routines. The self-developed questions present in the demographic section are as follows,

1. Body weight and height (to calculate the BMI)
2. Gym duration (for how long they have been attending the gym)
3. Reasons to follow the fitness routine (to look good, self-care, felt dissatisfied, to improve overt image, to improve physical health, to improve mental health, diabetes, heart issues, PCOS, fertility issues, postpartum, obesity, fatty liver, high blood pressure, societal pressure, peer pressure)
4. Preferred diet options (Portion control, low carb, crash diet, healthy/balanced diet, keto diet, maintenance diet).
5. Reasons for following a fitness routine (sedentary lifestyle, eating habits, late night cravings, work from home, emotional eating, stress eating, love for food)
6. Body Shape Questionnaire - BSQ-34 (Cooper & Fairburn, 1987)

The Body Shape Questionnaire (Cooper & Fairburn, 1987)

The Body Shape Questionnaire was developed by Cooper et al. (1987). The BSQ-34 is a 34 item self-reporting measure to evaluate concerns about one's own body shape. Responses are logged on a

6 point Likert scale that ranges from “never” to “always.” The scale has established good internal consistency in previous research studies, with Cronbach’s alpha coefficients recorded about 0.90. In the current study, the BSQ-34 revealed acceptable reliability, with a Cronbach’s alpha of 0.772.

Procedure

Participants were employed through a convenience sampling technique from various gyms and fitness clubs in Karachi. There were 200 female gym-going participants out of which 80 were adolescents (11-19 years) and 120 were young adults (20-40 years). The entire data was collected in single attempt at one point of time. Preceding to data collection, participants had been debriefed about the purpose of the research study, request to their honest responding, their right to withdraw from the study at any stage while keeping all the obtained information confidential. Their consent was obtained in both verbal and written. They were also made assured that the data collected in the study would be utilized for scientific research only. Participation was voluntary. Data was gathered via obtaining weight and height of the participants to calculate BMI, the form was presented to them that covered demographics statements inquiring about their preferences for fitness and diet, reasons for joining gym and the BSQ-34 assessing their own viewpoints regarding their own bodies shape and how they feel about it. The same method was carried out with online participants, Google Forms was used to administer the questionnaire. The administration took approximately 10- 15 minutes both online and in-

person. The participants were shown acknowledgement at the end of the procedure.

Data Analysis

The data was encoded into SPSS-23. For analysis of the data following tests were applied for assessing the results, descriptive Statistics (for percentage tilt), t-Test was applied to study the differences between two groups i.e. adolescent and young adult gym-goer females, Pearson Product Moment-Correlation Coefficient was used to evaluate the association between body image dissatisfaction, BMI, Point Biserial Correlation was used to assess the noticeable changes in one’s physique post joining gym, and One way ANOVA (for studying the mean differences in body dissatisfaction fueled by dietary patterns preferences across various choices)

Results

The current research study investigated body dissatisfaction among 200 participants, which consisted of 200 female gym-goers (adolescents and young adult). To carry out the study, based on the gap in South Asian literature in this domain, the study aimed at testing 4 hypotheses related to the features associated with body dissatisfaction. The major findings remained:

- a. A strong positive relationship between BMI and body dissatisfaction ($r = 0.56, p < 0.001$)
- b. Significant mean differences in body dissatisfaction through diet preferences ($F = 4.156, p = 0.001$)
- c. A counterintuitive positive relationship between perception of physical changes and body dissatisfaction ($r = 0.24, p < 0.001$)

Table 1

Reasons for joining the gym

Reason	n (%)
To Look Good	30 (%)
Self-care	10 (10%)
Felt Dissatisfied	100 (100%)
To Improve Overall Image	54 (54%)
To Improve Physical Health	98 (88%)
To Improve Mental Health	90 (90%)
Diabetes	08 (08%)
Heart Issues	02 (02%)
PCOS/PCOD	44 (44%)
Fertility	14 (14%)
Obesity	36 (36%)
Fatty Liver	30 (30%)
High Blood Pressure	26 (26%)
Societal Pressure	72 (72%)
Peer Pressure	78 (78%)

Table 1 presenting percentage tilt towards each of the reasons for joining gym. As can be seen that 100% female gym attenders marked for feeling dissatisfied with their body image as a reason to

join gym, 90% and 98% for seeking to improve physical and mental health respectively. 78% marks for peer pressure as a reason to join gym.

Table 2

Body Mass Index-BMI Categories for Descriptive Statistics (N=200)

BMI Category	n	M	SD	Range
Normal (18.5-24.9)	47	22.79	0.99	21-24
Overweight (25.0-29.9)	78	28.42	0.85	27-29
Obese (≥30.0)	67	36.19	6.07	30-61
Total Sample	200	23.60	4.50	18-35

Table 2 shows different ranges of BMI categories. 145 participants (72.5%) fell under obese category. Female gym-goers with Normal BMI (n=47, M = 22.79, SD = 0.99) whereas Overweight BMI (n = 78, M = 28.42, SD = 0.85) depicted comparatively

similar allocations of BMI in females. Greater variability was shown by Obese category (n = 67, M = 36.19, SD = 6.07) for BMI ranged from 30 to 61, showing diverse obesity prevalence within the sample population of the study.

Table 3

Descriptive Statistics with Pearson Correlation between BMI and Body Dissatisfaction (N=200)

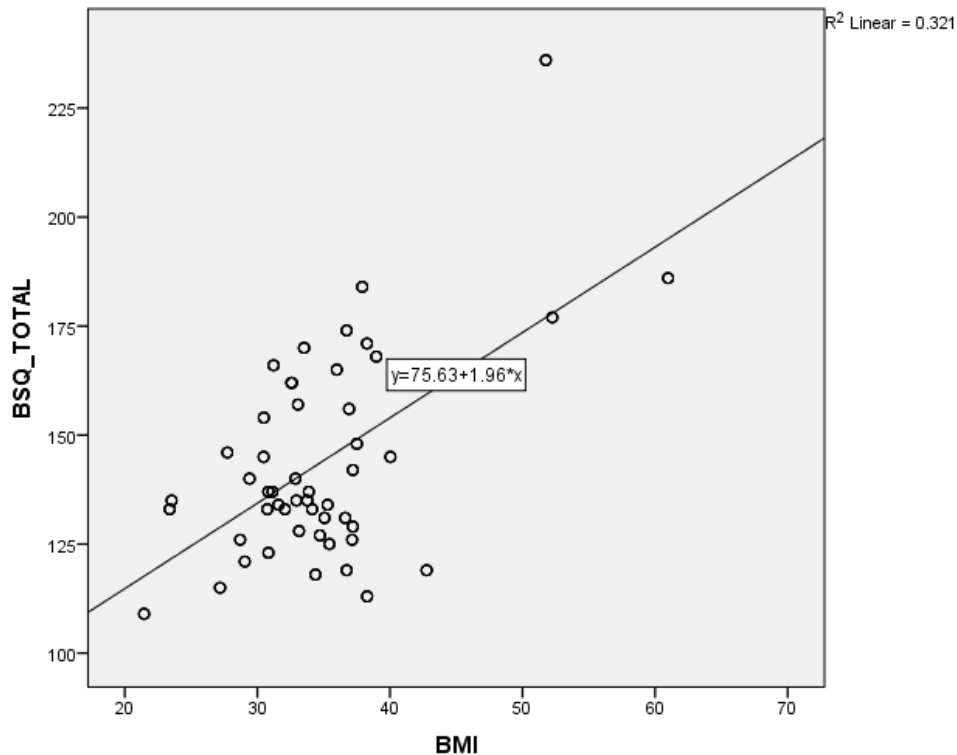
Variable	n	M	SD	Min	Max	r	p
BMI (kg/m ²)	200	23.60	4.50	18.0	35.2		
Body Dissatisfaction	200	143.40	23.27	109	236	0.056***	<0.001

A strong positive correlation (r = 0.056, p < 0.001) is shown in Table 3, that explains a strong

association between BMI and body dissatisfaction among adolescent young adults gym-goer females

in the study. BMI ranged from 18.0 to 35.2 (M = 23.60, SD = 4.50). The values for body dissatisfaction ranged from 109 to 236 (M =

143.40, SD = 23.27). The variance calculated accounted for 32% ($R^2 = 0.32$) for body dissatisfaction in the current study.



The Scatter plot displays visual illustrations of the findings for Table 3

Table 4
Pearson Correlation: BMI and Body Dissatisfaction

Variables	r	p
BMI and Body Dissatisfaction	0.567**	<0.001

Table 3 representing strong positive correlation between BMI and Body Dissatisfaction ($r = 0.567$,

$p < 0.001$). The findings reveal statistically significant relationship between the two variables.

Table 5
Point Biserial Correlation: Noticeable Physical Changes and Body Dissatisfaction

Variables	r	p
Noticeable Changes and Body Dissatisfaction	0.246**	<0.001

Table 5 shows the findings that female gym-goers who perceived and noticed physical changes in them given the fitness regimen, recorded

Significantly increased body dissatisfaction ($r = 0.246$, $p < 0.001$), paradoxical to hypothesized conception.

Table 6

Body Dissatisfaction by Dietary Choices – One Way ANOVA

Diet Preference	n	M	SD	F	p
Portion Control	80	140.05	18.2		
Low Carb	8	146.50	19.5		
Crash Diet	28	136.57	17.3		
Healthy/Balanced Diet	4	186.00	15.8	4.156	0.001**
Keto Diet	36	146.22	20.1		
Maintenance Diet	44	147.09	19.6		

Table 5 displays One-Way ANOVA depicting significant differences in body dissatisfaction across Diet groups/preferences. The findings reveal Post Hoc comparisons (Tukey

HSD) differed/contrasted significantly from Low Carb diet (p = 0.050), Portion Control (p = 0.001), Keto Diet (p = 0.012), Crash Diet (p = 0.001) and Maintenance Diet (p = 0.013).

Table 7

Independent Sample t-Test for Body Dissatisfaction in Adolescents and Young Adults

Variable	Adolescent (M) SD	Young Adult (M) SD	(df)	p
Body Dissatisfaction	143.50 (19.76)	143.33 (25.41)	198	0.96

Table 2 represents that the two age groups with adolescents (11-19 years) and young adults (20-40 years) female gym-goers reported no difference in body dissatisfaction in the current study.

body as a manner to gain acceptance by other (Jiménez Flores et al., 2017). Research evidence maintain that exercise provides multiple physical health, mental health and aging benefits whereas weight reduction and modification of body image top the list for major reasons among young females to engage in exercising (Yesildemir & Tek, 2022). This may further lead to developing body dissatisfaction more particularly in females who already follow certain dietary patterns that switch their eating behaviors (De Sá Resende, Ayane, 2017). Globally gyms and fitness spaces are taking up more significance in peoples' routine lives as the internal environment is greatly associated with providing a motivational inclination towards exercising that can help with body image concerns (Freire et al., 2020). The current study was carried out in various gym settings in Karachi city among adolescent and young adult female gym-goers because as per the Active Lives Adults Survey 2021 concluded that only 55% of Asian adults had been studied to be physical active with regular exercise routine, which is relatively much lower than in UK adults (16 years+) where around 63% adults followed regular exerciser regimen (Active Lives Data Tables | Sport England, n.d.; Deshmukh et al.,

Discussion

The research study was designed to examine body dissatisfaction and key variables that were BMI, reasons for following fitness routine, preferences for dietary designs, impact of mood, future necessities to continue following gym routine and if body awareness plays any role in negative perception of body image among 200 adolescent (80) and young adults (120) female gym-goers. Body image is a structure that takes into account an individual's personal identity with intricate/multifaceted construction (Dion et al., 2015). It is commonly observed that a countless people try several ways to fit "the ideal beauty standards" in Western Societies, giving rise to developing dissatisfaction with their body images in case of failing to meet (Alves et al., 2009). A parallel dissatisfaction has been evident more in adolescents and young adults since they are more susceptible to societal pressures, peer pressures, family, and media exposure to attain the perfect

2025). Literature from previous years also show that the South Asian adults (Pakistan, Bangladesh, India, and Sri Lanka) engage less in physical activities on routine basis hence they bear lower muscle mass and strength in their lifecycle as compared to English nationals (Narayan & Kanaya, 2020). Research studies demonstrate that females of growing and younger cohorts are more troubled by body dissatisfaction as compared to men (Gualdi-Russo et al., 2022; He et al., 2020). Body dissatisfaction concerns put such females at the stake of developing health issues on multiple facets such as disturbed eating habits, body dysmorphic disorders, reduced self-worth, decision making related to exercising, avoiding to exercise due to mental distress and anxiety as to what to begin with (Carvalho et al., 2020; Cowley & Schneider, 2025; Donyavi et al., 2015; More et al., 2019; Verplanken & Velsvik, 2008). On the basis of the aforementioned literature, the current study obtained the sample population from regular gym members of Karachi city. A considerable amount of practical research based on psychological, epidemiological and public health domains maintain that an individual's body weight works as an essential factor for determining body dissatisfaction in female populations. Testing the hypothesis in the current study, findings depict that body mass index (BMI) was strongly associated with body dissatisfaction among the 200 gym-attending females of our sample, that yields a strong positive correlation between the variables ($r = 0.56$, $p < 0.001$). Markedly, this finding simulates the strong BMI and body dissatisfaction correlation in gym-attending females, by increased health and body perceptions. According to a study, association between body dissatisfaction and BMI contribute to the predisposition of mental health concerns and eating disruptions in females (Schrempft et al., 2025). Another research finding concluded that poor body dissatisfaction is linked with BMI in adolescents that further executes a psychosocial mechanism and deprived mental health (Blundell et al., 2024). Obesity is generally characterized by a high degree of body mass index BMI for adults with being closely linked to declining mental and physical health concerns in individuals (Zhang et

al., 2022) as well as worsened quality of life (Ramel & Stenholm, 2021). A large body of literature supports the statistics that overweighing and obese individuals have higher possibilities to develop body dissatisfaction within themselves (Kilpela et al., 2021) in Western Societies. There also exist remarkable socioeconomic and hereditary factors that might work differently for various different nations (Ramachandran & Snehathala, n.d. 2010). A 10 year longitudinal study from adolescence to young adulthood, concluded that there has been a consistent association between negative body image such as body image dissatisfaction and increased BMI in females (Bucchianeri et al., 2013). These literature findings support the findings of the current study where 72.5% female population fell under obese category with BMI ranging from ≥ 30.0 , shown in table 2. The current study's next hypothesis tested was that females who perceived to have noticed any positive physical changes in them after following a gym or fitness routine, would state lesser body dissatisfaction. However, the analysis yielded contradictory findings revealing a significant positive relationship between perceiving positive physical changes and body dissatisfaction ($r = 0.24$, $p < 0.001$). This finding was counterintuitive in nature as it signifies that females who could perceive noticeable positive changes in their physique after fitness routine, recorded significantly higher body dissatisfaction as compared to those females who perceived no changes. This result can be understood in the context of Body Surveillance Theory (Hyde, 1996). Body surveillance is regarded as viewing one's own body and evaluating themselves on the basis of how their body looks rather than how the body feels (Hyde, 1996). Literature revealed that constant watchfulness on your own body often result in increased feels of body dissatisfaction, body shame, and self-objectification (Isra Tahseen & Aasma Yousaf, 2023). The findings of the current study also reveals the similar trend that body awareness in females as they observe even positive modifications in their bodies while carrying on with their fitness regimen, goes parallel with their body dissatisfactory parameters. Despite whatever females are doing in other

domains of life, their focus of attention consumes a larger part of their appearances, which correlates negative body image and body dissatisfaction with body surveillance phenomenon (Paulisova & Orosova, 2023). The findings further supports the current study correlates that significantly studies the link between body dissatisfaction in females and body surveillance that focuses on knowing your own body also termed as body awareness in positive direction (Khan et al., 2023). Additionally the current study also tested for the hypothetical statement that different, preferred dietary choices will yield mean differences with body dissatisfaction in adolescent and young adult females. For assessing the data, one-way analysis of variance (ANOVA) was carried out to study associations between body dissatisfaction across six (6) dietary options (Portion Control, Low-Carb, Crash Diet, Healthy/balanced diet, Keto diet, and Maintenance diet). Results revealed statistically significant mean differences in body dissatisfaction through preferences for dietary designs, $F(5,194) = 4.156$, $p = 0.001$, signifying that there existed a relationship between dietary patterns preferences by females and ranks of body dissatisfaction. Particularly, female gym-goers who signed up for a healthy/balanced diet design, revealed considerably higher body dissatisfaction ($M = 186.00$, $SD = 15.8$) in comparison to the rest of the dietary designs or groups. Females who followed crash diet plan yielded the least body dissatisfaction ($M = 136.57$, $SD = 17.3$), depicting a differential gap with 49 points between the two groups. Assessing the Tukey's tests using Post hoc analysis, generated that group of females who were following healthy/balanced diet remained significantly different from all other choices of dietary patterns; Portion Control ($p = 0.001$), Low Carb ($p = 0.050$), Crash Diet ($p = 0.001$), Keto diet ($p = 0.012$) and Maintenance diet ($p = 0.013$). On the contrary, other dietary choices/groups displayed comparatively related dissatisfaction, ranging from $M = 140.05$ (Portion Control) through $M = 147.09$ (Maintenance diet). These statistics explain that the most health-based dietary programs were associated with highest levels of body dissatisfaction whereas crash diet strategies were associated with lowest body dissatisfaction in

female gym-goers, given the fact that crash diet programs are designed on the borderline of human food consumption survival. Women more commonly hold this belief that diet culture is directly equivalent to body weight reduction and they further associate with social acceptance and validation (Faw et al., 2021). A body of literature suggests that female adolescents who reported dissatisfaction with their bodies, attempted to cut down on consumption of nutrient dense food items such as vegetables, dairy, fruits, and whole grains (Carrard et al., 2024). Furthermore, body dissatisfaction may possibly lead to various types of dietary patterns in young adult women where they can avail customized diet designs according to their body statistics and needs as per their Basal Metabolic Rate (BMR) (the basic number of calories one's body requires to function through each day) (Monthuy-Blanc et al., 2023a). Controlled eating is basically adapted as compromising strategy to bring one's body weight and shape under specific figure which is generally triggered by body dissatisfaction. Such controlled eating involves unrealistic behavioral and cognitive approaches to avoid eating certain food groups such as a carbohydrates, fats, dairy and fruits (Monthuy-Blanc et al., 2023b), to combat body dissatisfaction.

Studies show that body dissatisfaction is firmly associated with eating behaviors and following certain diet patterns where the quality of diet plan is categorized by specific body needs, availability of various options; striking a balance between wide choices of required essential nutrition (Malloy et al., 2024). Similarly the findings of the current study revealed the results corresponding to the aforementioned literature where positive body image concerns are associated with healthier diet designs and mindful eating behaviors, while body dissatisfaction and controlled eating patterns are linked with low quality dietary designs, built on poorer nutritional guidelines (Abdoli et al., 2023; Baceviciene et al., 2020; Bibiloni et al., 2013; Jackson et al., 2024; Jankauskiene & Baceviciene, 2019; Malloy et al., 2024; Min et al., 2018; Panão & Carraça, 2020; Silva et al., 2018; Yong et al., 2021).

However, on the contrary to the proven hypotheses of the current study, one of the hypothetical statements could not develop on the ground of statistical significance. Age group did not depict difference in body dissatisfaction, as with adolescent females ($M = 143.5$, $SD = 23.2$) and young adult females ($M = 143.3$, $SD = 23.4$) showing closely similar dissatisfaction, $t(198) = 0.049$, $p = 0.96$. This finding concludes that body dissatisfaction concerns turned out to be homogenous across adolescent and young adult female gym-goers. However, to conclude, looking at the Table 1, the descriptive analysis shows that 100% of the sample population opted for “felt dissatisfied” in the demographics that puts an alarming urgency to assess the severity of negative body image perceptions in women in this 21st century where exposure and awareness are extremely bombarded broadly through multiple, accessible, and instant sources such as social media. The same table also depicts that 98% and 90% of the population marked for “improving physical health” and “improving mental health” respectively that indicates the struggles of fitting into certain circle of validation and acceptance. There was 78% of the sample population who chose for “societal pressure” as another reason to join gym or follow specific fitness routine. This further indicates the amount of external pressure women of most age groups load themselves with in return to nothing in concrete rather mere approval and validation.

Future Recommendations

Firstly, the convenience sampling approach could bring limitation to the external validity of the findings. Secondly, the cross sectional design of the study could also intersect the findings. Longitudinal approach would work more practical for this subject matter where participants could be administered the test over different periods of time to assess the variance of findings on similar spectrum. Since cross sectional studies can particularly study relationship between variables, the cause and effect phenomenon has been overlooked that could have yielded more direct findings. Future research should include

qualitative approach to analysis as well as it incorporates subjective perspective of participants.

Conclusion

The present research study was designed to explore body dissatisfaction amongst gym-goer adolescent and young adult females. It aimed at investigating the statistical relationship between body dissatisfaction, BMI, eating behaviors, diet culture, preferences for dietary choices for attaining desired body weight and shape goals, and if any difference co-existed between the two age groups of female population in the study i.e. adolescents and young adults. The findings revealed statistically significant correlation between body dissatisfaction and BMI, noticeable physical differences within one's own body and body dissatisfaction, and dietary patterns preferences or choices and body dissatisfaction. These findings underscore the significance of addressing these concerns in female gym-goers that are liable to affect their mental health in various ways. The reasons for excessive indulgence into exercise, eating behaviors and body dissatisfaction perceptions need to be addressed and worked on to avoid turning them into any mental health concern. Overall, the findings of the study may contribute largely to the existing body of literature and may also deliver empirical foundations for future research.

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