Evaluation of the Relationship between Obesity and Life Satisfaction among Male and Female Students of Pakistan

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Abstract

The study intends to explore the relationship between Obesity and life satisfaction among male and female students. The sample of present study was 400 comprises of both male and female (200 each) and explored their respective demographics. The study is located at Faisalabad. The Instrument used to access the life satisfaction and Obesity was the life Satisfaction Scale and BMI of the participants respectively. Data was analyzed using different statistical techniques including repeated measures ANOVA and Univariate analysis, correlations along with basic descriptive. It was found that there is Negative correlation present between obesity and life satisfaction in students. Additionally, there is a negative correlation between age and marital status whereas there is a positive correlation between age and BMI. Additionally, the correlation analysis established a stronger negative association between Body Mass Index and Marital Status. The relationship between married status and life satisfaction is favorable but not very

substantial. Results have demonstrated that there is a substantial relationship between gender, body mass index (BMI), and life satisfaction. Age, marital status, and gender are three demographic factors that have a significant influence on the degree of resilience, life satisfaction, and BMI.

Introduction

In the modern era people are more concerned about their body image, shape and size due to the self-perceptions and social pressure of being perfect. People compare themselves to other and even follow strict routines of diet if they perceive themselves obese. As research identifies that between 1980 and 2006, the Center for Disease Control estimates a 12 percent rise in the prevalence of obesity in both children and teenagers (Center for Disease Control and Prevention, 2009). Obesity has severe and pervasive negative impacts, especially on young people. Obesity in young people is linked to low self-esteem, withdrawal from interpersonal contact, melancholy, anxiety, and a sense of ongoing rejection in addition to obvious health problems such diabetes and asthma (Centers for Disease Control and Prevention, 2009). (Deckelbaum and Williams, 2001; Ge et al., 2001; Strauss and Pollack, 2003). All of these elements may have a detrimental impact on kids' general well-being and level of happiness in life. Furthermore, the detrimental impacts of childhood obesity have an impact on future wellbeing. (Cawley and Spiess, 2008).

OBESITY

A medical disease known as obesity occurs when extra body fat builds up to the point that it might be harmful to one's health. Body mass index (BMI) is used to characterise it, and the waist-hip ratio and overall cardiovascular risk factors are used to further assess how fat is distributed (Piche, Poirier, Lemieux, & Despres, 2018). Both percentage body fat and total body fat are highly correlated with BMI. A child's healthy weight varies depending on their age and gender. Obesity in children and adolescents is defined as a BMI over the 95th percentile, rather than as an absolute figure in comparison to a historical normal population. (Pomeroy, Macintosh, Wells, Cole, & Stock, 2018). The most widely used definitions were developed by the World Health Organization (WHO) in 1997 and published in 2000. A few organisations have modified the WHO criteria. The surgical literature divides class II and class III obesity into other groups,

the values of which are currently up for debate. BMI between 35 and 40 The most frequent causes of obesity include an excessive food intake, a lack of exercise, and a hereditary predisposition. Some instances are largely brought on by genes, endocrine issues, drugs, or mental health issues. There isn't much evidence to support the idea that fat people eat less yet still put on weight as a result of a sluggish metabolism. Because it takes more energy to maintain an obese person's weight than a normal person, obese persons often have higher energy expenditures. (Speiser et al., 2005).

Most cases of obesity may be avoided by combining societal improvements with individual decisions. The major therapies are dietary modifications and exercise. Diet quality may be raised by consuming less foods that are rich in energy, including those that are high in fat and sugar, and more dietary fibre. To suppress the appetite or lower fat absorption, medications may be used in conjunction with a healthy diet. A gastric balloon or surgery may be used to shrink the size of the stomach or the length of the intestines if diet, exercise, and medicine are ineffective. This results in an early sense of fullness or a decreased capacity to absorb nutrients from meals. (Lang & Froelicher, 2006).

A person's weight is determined by how well their calorie intake and energy expenditure balance out. A person accumulates weight if they consume more calories than they can burn off (metabolise) (the body will store the excess energy as fat). A person will lose weight if they consume less calories than they burn off through metabolism. Overeating and lack of exercise are hence the main contributors to obesity. In the end, genetics, metabolism, environment, behaviour, and culture all contribute to body weight. (Stubbs et al., 2018). Whatever the causes may be the obesity has a strong connection with the body image and perfection which in turn leads towards life satisfaction.

LIFE SATISFACTION

In recent decades, the notion of life satisfaction has been employed regularly to assess the subjective well-being of older adults (60 years and older) (Lai, Cummins, & Lau, 2018). However, diverse factors have been discovered to be connected with life satisfaction due to heterogeneity in the included samples' characteristics, such as age, gender, or country, questions utilised, as well as indicators included. Additionally, there are relatively few cross-national

comparison studies examining a variety of variables linked to life satisfaction while using the same tools. (Skevington, & Böhnke, 2018). It has been stated that life satisfaction and quality of life are comparable concepts that refer to an individual's overall assessment of their own existence. indicated that pleasure is similar to life satisfaction. She claims that the difference between potentiality and reality, or the prospect of a good life, and the good life itself, is what defines life pleasure (Jamaludin, Sam, Sandal, & Adam, 2018).

The way people express their emotions and sentiments (moods) and how they feel about their future plans and possibilities are both indicators of their level of life satisfaction. It serves as a gauge of wellbeing and may be evaluated in terms of mood, contentment with interpersonal relationships and goals attained, self-concepts, and self-perceived capability to deal with day-to-day challenges. It is having a positive outlook on one's life as a whole as opposed to a judgement on their current emotions. Life satisfaction has been assessed in connection to a variety of factors, including socioeconomic status, level of education, life events, place of residence, and many more. Experiences that have positively impacted a person's life might be reflected in their level of life satisfaction. People might be inspired by these encounters to pursue and accomplish their objectives. Two different types of emotions can affect how people view their life. Both hope and optimism are made up of cognitive processes that are often focused on achieving objectives and how those goals are perceived (Gross, & John, 2003).

Seligman asserts that individuals tend to focus less on the negatives when they are pleased. A happy atmosphere is fostered by happier individuals, which in turn increases a person's degree of life satisfaction. Happier people also tend to enjoy other people more. Others, however, have shown that deeply unpleasant emotional states like sadness may coexist with life pleasure (Lyubomirsky, 2001). Life satisfaction is a general evaluation of one's views and sentiments toward their life at a specific period, ranging from good to negative. It is one of the three key measures of wellbeing together with life satisfaction and positive and negative effects (Martela, Ryan, & Steger, 2018).

Strine et al. (2008) investigated the correlations between adult adults' health-related quality of life, chronic disease, and unhealthy behaviours. They examined data from the Behavioral Risk Factor Surveillance System from 2005, in which 5.6% of US adults (or roughly

12 million people) reported being somewhat or very unhappy with their life. Life dissatisfaction, unpleasant emotions, and excessive consumption—including smoking and heavy drinking—were all strongly and consistently correlated. The incidence of fair or poor general health, disability, and infrequent social support rose along with physical distress, mental anguish, activity limitation, depressive symptoms, anxiety symptoms, insufficient sleep, and pain as the degree of life satisfaction fell.

Rational of the study

This study explores the relationship between obesity and resilience and how it affects life satisfaction. These viewpoints give rise to excessive worries and preoccupations about how these factors affect both male and female students. The study advances our understanding of these factors' relationships with one another and their impact on life satisfaction. It will be helpful to stakeholders and a source for future study.

Objectives of the study

1. To determine whether there is a difference in teacher obesity between men and women.

2. To compare the life satisfaction levels of pupils who are male and female.

3. To examine the relationship between obesity and life satisfaction among students, both male and female.

Hypotheses of the study

H1. Female students would be more likely to be obese than male students.

H2. Male students would be more satisfied with their lives than female pupils.

H3: Obesity and life satisfaction should be correlated in both male and female students.

Materials and Methods

Sample. In this study, the demographics of the sample of 400 students, including their age (15 to 30), gender (male and female), level of education (intermediate to higher education), marital status (single or married), and place of residence, (Faisalabad) were targeted.

Research design. In the current study, a correlation research design was used.

Sampling technique. This study used a technique called purposeful sampling. In addition to being mentioned, demographic factors were not included in the criterion for collecting study data.

Instruments

BMI

To examine the obesity level of the participants of the study BMI is inquired.

The life Satisfaction Scale. To assess a respondent's level of happiness with their life as a whole, the life satisfaction Scale (SWLS) was initially established. a 5-item scale for assessing one's overall cognitive assessments of their level of happiness (no longer a measure of both constructive and poor affect). Using a 7-point scale that ranges from 1 strongly disagrees to 7 strongly agrees, contributors indicate how much they agree or disagree with each of the five items.

Procedure

After completing out an informed permission form, participants completed a demographic questionnaire, a BMI chart, and a life satisfaction scale. In addition to being mentioned, demographic factors were not included in the criterion for collecting study data. They received a thorough debriefing at the end of the session. Repeated measures analysis of variance (ANOVA) and Univariate analysis of variance (ANOVA), together with inferential statistics for interaction breakdown, were used to examine the data. The link between the Variables was further examined using the Pearson product moment correlations. The characteristics of the subjects were described using descriptive statistics.

Results and Discussion

Hypothesis test was conducted on these findings using a Pearson's Product Moment relationship display. Repeated measures analysis of variance (ANOVA) and Univariate analysis of variance (ANOVA), together with inferential statistics for interaction breakdown, were used to examine the data. The connections between gender, BMI, and life happiness were also examined using the Pearson product moment correlations. The characteristics of the subjects were described using descriptive statistics.

Tables display the average values for gender, BMI, and life satisfaction. Age of the participants was divided into three groups: 15–20 years, 20–25 years, and 25–30 years. Gender distribution was 50–50 male and female, and married status was assigned to 9% of the sample. 90.5% are single, while 0.5% are divorced.

The average levels of life satisfaction prevalence according to analysis that Extremely dissatisfied 4.5%, Dissatisfied 19%, Slightly dissatisfied 30.5%, Neutral 7.5%, Slightly satisfied 25%, and Satisfied 13.5% were documented are the most significant outcome of this comparison.

Table 1. Age of the Sample (N=400)

Age	Frequency	%	Valid Percent	Cumulative Percent
15-20	98	24.5%	24.5%	24.5%
20-25	214	53.5%	53.5%	78.0%
25-30	88	22.0%	22.0%	100.0%
Total	400	100.0%	100.0%	

Age of the individuals categorize into 3 groups (15-20years) were 24.5%, (20-25 years) were 53.5% and (25-30 years) 22%,

Table 2. Gender of the Sample (N=400)

Gender	Frequency	%	Valid Percent	Cumulative Percent
Male	200	50.0%	50.0%	50.0%
Female	200	50.0%	50.0%	100.0%
Total	400	100.0%	100.0%	

According gender male 50% and female 50%, were recorded

Table 3. Marital Status of the Sample (N=400)

Marital status	Frequency	%	Valid Percent	Cumulative Percent
Married	36	9.0%	9.0%	9.0%
Unmarried	362	90.5%	90.5%	99.5%
Divorced	2	.5%	.5%	100.0%
Total	400	100.0%	100.0%	

Marital status of the sample were categorize as married 9% Unmarried 90.5%, and divorced 0.5%.were examined .

Table 4. Life satisfaction of the Sample (N=400)

Level of Life Satisfaction	Frequency	%	Valid Percent	Cumulative Percent
Extremely Dissatisfied	18	4.5%	4.5%	4.5%
Dissatisfied	76	19.0%	19.0%	23.5%
Slightly Dissatisfied	122	30.5%	30.5%	54.0%
Neutral	30	7.5%	7.5%	61.5%
Slightly satisfied	100	25.0%	25.0%	86.5%
Satisfied	54	13.5%	13.5%	100.0%
Total	400	100.0%	100.0%	

The average levels of life satisfaction according to analysis that Extremely Dissatisfied 4.5%, Dissatisfied 19%, Slightly Dissatisfied 30.5%, Neutral 7.5%, Slightly Satisfied 25%, and Satisfied 13.5% were documented are the most important outcome of this comparison. As seen in (figure.1), the mildly unsatisfied are higher than the others.

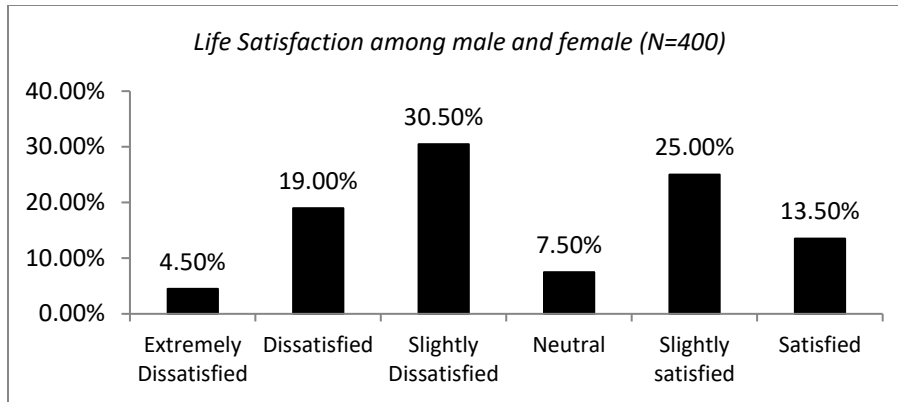**Figure1**. *Level of Life Satisfaction*

Life Satisfaction among male and female (N=400)

Table 5. BMI of the Sample (N=400)

Level of BMI	Frequency	%	Valid Percent	Cumulative Percent
Underweight	2	.5%	.5%	.5%
Normal weight	190	47.5%	47.5%	48.0%
Overweight	8	2.0%	2.0%	50.0%
Obese Class I	174	43.5%	43.5%	93.5%
Obese Class II	26	6.5%	6.5%	100.0%
Total	400	100.0%	100.0%	

Using the World Health Organization classification, we group the individuals into five groups based on their BMI: There were five categories: underweight (0.5%), normal (47.5%), overweight (2.0%), obese I (43.5%), and obese II (6.5%). Figure 2 below illustrates how the Class I obesity rates are greater than those of other obese people.

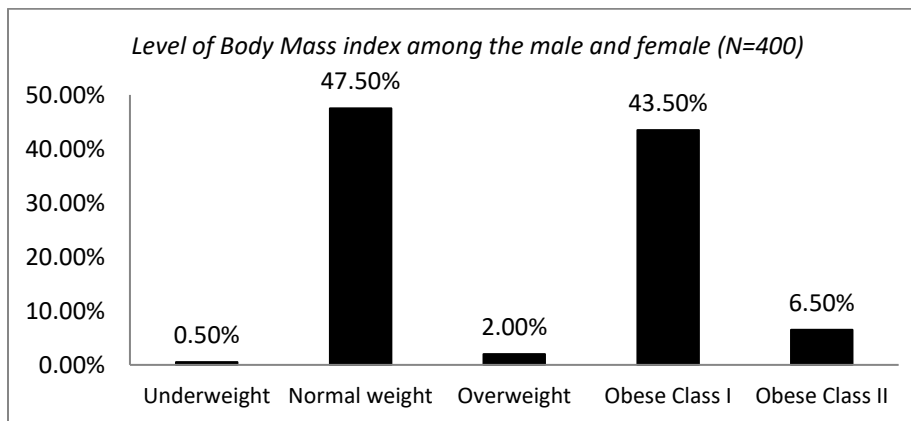**Figure 2.** *Level of Body Mass index*

Level of Body Mass index among the male and female (N=400)

Table 6. Summary of Correlation Analysis: Relationship of Life satisfaction, Body Mass index (BMI) and Gender. (N=400)

		Age	Gender	Marital Status	Body Mass index	Life Satisfaction
Age	Pearson Correlation	1	-.022	-.209**	.259**	-.089
	Sig. (2-tailed)		.661	.000	.000	.075
	N	400	400	400	400	400
Gender	Pearson Correlation	-.022	1	.118*	.000	-.077
	Sig. (2-tailed)	.661		.018	1.000	.125
	N	400	400	400	400	400
Marital Status	Pearson Correlation	-.209**	.118*	1	-.212**	.129**
	Sig. (2-tailed)	.000	.018		.000	.010
	N	400	400	400	400	400
Body Mass index	Pearson Correlation	.259**	.000	-.212**	1	-.606**
	Sig. (2-tailed)	.000	1.000	.000		.000
	N	400	400	400	400	400
Life Satisfaction	Pearson Correlation	-.089	-.077	.129**	-.606**	1
	Sig. (2-tailed)	.075	.125	.010	.000	
	N	400	400	400	400	400

**. *Correlation is significant at the 0.01 level (2-tailed).*

*. *Correlation is significant at the 0.05 level (2-tailed).*

To establish the scope and direction of the relationship between the two parameters, a correlative analysis was conducted by calculating Pearson's Product Moment Correlation Coefficient.

In both male and female students, the relationship analysis created a more solid Negative association between obesity and life satisfaction (r =-.606** p=.000 .01). (ii) The study discovered a significant positive correlation between age and BMI (r =.259** p =.000.01). (iii) The connection study established a stronger negative relationship (r = -.209** p =.000.01) between age and marital status. (iv) The correlation analysis revealed a stronger negative link between Body Mass Index and Marital Status (r = -.212** p =.000.01). (vi) The correlation between married status and life satisfaction is positive but not very significant (r =.129** p

=.010.01). score as seen in Table 2 of the SPSS result. Following these results, it was assumed that, despite the fact that there was a significant link between gender and body mass index (BMI), resilience, and life satisfaction.

Table 7 Model Summary on Regression Analysis of Influence of BMI on Life Satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.606[a]	.367	.365	4.37531

a. Predictors: (Constant), BMI

According to Table 2, a coefficient of confidence, R2=.367, indicates that the two components were correlated with a fluctuation of 36.5%. This implies that the BMI model accurately captured the variation in overall change in life satisfaction across male and female students at.606a. There was really little of an effect of a variable on the particular dependent variable. In any event, Analysis of Variance (ANOVA) was performed as in the following table to determine if BMI was the important indication relating level of Life satisfaction among the male and female students.

Table 8 ANOVA Influence of Influence of BMI on Life Satisfaction

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	4416.042	1	4416.042	230.683	.000[b]
1	Residual	7619.036	398	19.143		
	Total	12035.078	399			

a. Dependent Variable: Life Satisfaction

b. Predictors: (Constant), BMI

Child rearing style was a significant predictor of students' life happiness, according to Table 8 [F (1, 398) = 230.68p =.000b, R2 =. 4416.042]. This suggests that BMI really has an effect on how satisfied students are with their lives. Unmistakably, BMI results demonstrate a significant variation in how life happiness is estimated. Additionally, a direct relapse was created to determine the level of BMI and Life satisfaction, as shown in the table below.

Table 9 Coefficients of Linear Regression: *BMI on Life Satisfaction*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	33.563	1.045		32.128	.000
	BMI	-3.054	.201	-.606	-15.188	.000

a. Dependent Variable: Life Satisfaction

Table 9 shows that observed scores in the degree of Life satisfaction connected with pupils would increase by.201 standard deviation units and significance.000 in the event that the BMI was increased by one standard deviation at that moment.

Discussion

The frequency of life satisfaction, resiliency, and obesity among male and female students has been examined in this study. It has been proven that female students are more likely to be obese than male pupils. (b) Male students would have better life satisfaction than female pupils. (c) Both male and female students' life satisfaction and obesity should be correlated.. After detailed analysis results supported and rejected following hypothesis respectively.

In both male and female students, the relationship analysis established a more solid negative association between obesity and life satisfaction. The correlation study established a more convincingly negative relationship between age and marital status. The correlation study established a stronger link between married status and body mass index. The investigation discovered a bad relationship between resilience and marital status. The relationship analysis established a more solid negative relationship between resilience and BMI.

The study's conclusions have been backed up by a tonne of research. It was hypothesised that male students would have higher levels of life satisfaction than female students. Findings from the results confirm that female students' levels of life satisfaction are lower than those of male students'.

Additional support for the claim that people derive happiness from a variety of sources was discovered by Pinquart and Sorsen in 2000. For males than for women, life happiness was more strongly correlated with pay. According to the results, sexual orientation has an impact on

life satisfaction. According to one theory, single students would have more life happiness than married students. Life satisfaction and marital status don't seem to be associated. Individuals who are alone, solitary, widowed, or separated are less content with their lives than married or cohabiting women. Adults who aren't married attribute being single to the two restrictions and choices. The never-married need to get married more than the separated, and men want marriage more than women do (Bailey & Synder, 2007).

Conclusion

The goal of the current study was to learn more about students' levels of resiliency and life satisfaction. The results of the investigation showed a strong positive association between life satisfaction and resilience in both male and female students. Age and BMI were revealed to be significantly positively correlated by study. Results additionally revealed that there is no critical distinction found in that Male students have more elevated amount of resilience when compare with female students, however there was critical correlation found in females students have low level of life satisfaction as compared to male students.

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