WE AVEC U PUBLICATION

Psychological Journal of Modern Assessment and Intervention
An Open Access Peer Reviewed Journal

Jan-Mar 2025, VOL 02, NO. 01, P. 13-19

ISSN: 3048-8214 (online)

A Study On Anxiety, Stress And Depression Between Male And Female Obese Patients

Dr. Shadab Ahamad Ansari[1] and Mahima Yadav[2]

[1] Associate professor, Dept. of Applied Psychology, Galgotias University, UP, 203201 India

[2]Undergraduate student, Dept. of Applied Psychology, Galgotias University, India

Abstract

Background: *In many studies on this topic were focused on the prevalence and effects of obesity on both male and female patients and obese peoples, gender differences in obesity and mental health. both male and female obese patients are facing psychological distress studies had indicated towards the existence, risk and effects of anxiety, stress and depression among both male and female. those studies were engaged towards finding suitable ideas to deal with these mental health conditions for obese patients. There were some other aspects also of the studies such as body image and self-esteem, social and cultural aspects, social support, healthcare disparities etc. Upcoming literature sheds light on the effect of stigma on mental health of obese patients.*

Methods and tools: *The study got conducted through the google form with a sample of 60 patients of obesity those who are adult and come between the age of 18-25. They asked to fill a questionnaire related to the assessment of anxiety, stress and depression. The name of that questionnaire is DASS21. Among those 60 patients 30 were male and the other 30 were females.*

Result: *According to the results of 60 patients showed no significant difference in prevalence for mental health conditions in both gender's patients based on DASS21 scale. The result of T-test has shed light on the significance level which is 0.05.*

Conclusion: *This study concludes that male patients face more anxiety, stress and depression than female patients.*

Keywords: *Mental health conditions, Male, Female, Obese patients, DASS21, Significance, Anxiety, Stress, Depression.*

Introduction

Severe obesity is associated with significant psychological and social challenges. Overweight individuals often face criticism and judgment from both acquaintances and strangers, who may attribute their condition to a low strength.

As a result, many obese individuals feel self-conscious and may avoid social situations or activities they once enjoyed. Everyday tasks, like going to the movies or traveling, can become sources of discomfort due to physical limitations or the perception of others.

Study shows, severely harmed persons were asked to select from their current weight and other disabilities, such as blindness or limb amputation. Surprisingly, many respondents expressed a preference for alternative health conditions over obesity. This underscores the profound impact that weight-related stigma can have in person's well-being.

Obesity is characterized by being significantly above one's usual body weight. Traditionally, a person was seen as obese if they exceeded ideal poundage by above 20%. Experts have provided a more precise definition, stating that obesity is indicated by a body weight of 30-above . While body weight correlates strongly with total body fat, to see some individuals, particularly those with high muscle mass, may have a high BMI without significant health risks. Therefore, BMI serves as a crucial tool for assessing the relationship between body weight and height.

The factors contributing to obesity include:

- An ongoing imbalance between the amount of energy consumed and the amount expended.

- Excessive consumption of dietary fats can also contribute to obesity.

- Lack of physical activity and leading a sedentary lifestyle are primary factors leading to obesity.

- Complex behaviours and psychological factors can lead to overeating and subsequently, obesity.

- Metabolic abnormalities in energy utilization may promote the accumulation of fat.

- Obesity during childhood and adolescence can predispose individuals to obesity in adulthood.

Obesity levels are determined based on an individual's ideal body weight, which reflects the weight suitable for optimal physical performance among young adults. The primary measure used for this is body weight This computation entails dividing the weight in kilograms by the square of the height in meters. Body weight below 18.5 indicates undernourishment, while a BMI exceeding 25 tells about the much weight , and a BMI above 30 shows obesity.

RATIONALE

The previous researches about this topic were engaged with the idea of many things such as prevalence in between male and female obese patients. Researches on the this topic helps to build an understanding about circumstances of anxiety, stress , depression for obese patients. There were some gaps in the studies on this topic like stigma faced by patients, body image and self-esteem, comparing coping mechanisms, impact of body image perception on mental health, etc. In this study we will find out the effect of stigma on obese patients mental health.

OBJECTIVES

- To examine the difference between stress level of obese patients.
- To assess the difference between anxiety level of obese patients.
- To investigate the difference between depression level of obese patients.

HYPOTHESES

- There will be a notable difference between stress levels of obese patients.
- There will be a notable difference between anxiety levels of obese patients.
- There will be a notable difference between depression levels of obese patients.

METHODOLOGY

Sample size of 80 patients, comprising 40 males and 40 females, was included in the study, alongside participants lying from 18-25 years old and representing diverse backgrounds without regard to caste, culture, or ethnicity.

The most prevalent age group in the sample was 21 years old, closely followed by 20-year-old.

Tool:

The primary instrument utilized in this research was the DASS-21 scale, which assesses levels of anxiety, stress, and depression. This scale consists of 21 items, with 7 items dedicated to each of the three mental health conditions.

RELIABILITY AND VALIDITY

Research has demonstrated that the DASS-21 exhibits strong reliability, with Cronbach's alpha values ranging from 0.74 to 0.93 across various studies conducted with both clinical and non-clinical populations.

STAISTICAL ANALYSIS

The data were analyzed on the base of norms and t-test using in MS excel. The variables were given in descriptive statistics like mean and standard deviation. T-test used to explore differences on the preponderance of conditions related health in between male and female obese patients using the DASS21 scale.

Table 1.1 Descriptive Statistics for Variable 1 and Variable 2 about stress level

	Variable 1	Variable 2
Mean	12.55	20.525
Variance	35.22820513	24.6660
Observation	40	40
Pearson Correlation	0.170880529	
Hypothesized mean difference	0	
df	39	
T stat	-7.145940316	
P(T<=) one-tail	6.76111E-09	
T Critical one-tail	1.684875122	
P(T<=t) two-tail	1.35222E-08	
T Critical two-tail	2.022690901	

This table 1.1 shows the difference in between stress level of two variables in which the mean of variable 1 is 12.55 and variance is 35.22820513 and In variable 2 mean is 20.525 and variance is 24.6660 .

Table 2 Descriptive statistics for Variable 1 and Variable 2 about anxiety level

	Variable 1	Variable 2
Mean	11.175	20.525
Variance	30.35320513	24.66602564
Observation	40	40
Pearson Correlation	0.410752076	
Hypothesized mean	0	
df	39	
T stat	-10.36635287	
P(T<=t) one-tail	4.57328E-13	
T Critical one-tail	1.684875122	
P(T<=t) two tail	9.14656E-13	
T Critical two-tail	2.022690901	

Table 2 indicates that mean of Variable 1 is 11.175 and variance is 30.35320513 and in Variable 2 mean is 20.525 and variance is 24.66602564 .

Table 3 Descriptive statistics for Variable 1 and Variable 2 about depression level

	Variable 1	Variable 2
Mean	25.55	12.775
Variance	17.02307692	43.10192308
Observations	40	40
Pearson Correlation	-0.029392034	
Hypothesized Mean Difference	0	
df	39	
t Stat	10.28460031	
P(T<=t) one-tail	5.74482E-13	
t Critical one-tail	1.684875122	

P(T<=t) two-tail	1.14896E-12	

Table 3 indicates that the mean of Variable 1 is 25.55 and variance is 17.02307692 and in Variable 2 mean is 12.775 and variance is 43.10192308 .

DISCUSSION AND CONCLUSION

This study has found a considerable difference between condition of male and female obese patients. This research could be described with the help of various tables and their data as follows:

The data presented in Table 1.1 reveal distinctions in stress levels between two variables. Variable 1 has an average stress level of 12.55, indicating a lower mean stress level compared to Variable 2, which averages at 20.525. This suggests that individuals in Variable 2 experience higher stress levels on average than those in Variable 1. Furthermore, Variable 1 shows a higher variance in stress levels (35.22820513) compared to Variable 2 (24.6660). Variance measures the spread of data around the mean, indicating that stress levels vary more widely among individuals in Variable 1 than in Variable 2. This suggests a slight tendency for stress levels to increase together across the two variables, but the correlation is relatively low, implying that other factors may also influence stress levels independently in each variable.

The t-test results demonstrate a high mean stress levels in two variables, second variable showing more stress level than first variable. The t-statistic of -7.145940316 and the associated p-value of 6.76111E-09 confirm this difference as statistically significant. In summary, the data analysis indicates notable variations in stress levels between Variable 1 and Variable 2, with Variable 2 exhibiting higher mean stress levels and lower variability compared to Variable 1.

The data in Table 2 reveal variations in anxiety levels between two variables. Variable 1 has an average anxiety level of 11.175, indicating lower anxiety compared to Variable 2, which averages at 20.525. This implies that individuals in Variable 2 experience higher anxiety levels on average than those in Variable 1. Additionally, Variable 1 shows higher variability in anxiety levels (30.35320513) compared to Variable 2 (24.66602564). Variability measures the spread of data around the mean, indicating that anxiety levels vary more widely among individuals in Variable 1 than in Variable 2. This suggests that as anxiety levels increase in Variable 1, there's a tendency for them to also increase in Variable 2, and vice versa. However, the correlation isn't very strong, suggesting other factors may influence anxiety levels independently in each variable.

Furthermore, the t-test results show a significant difference in mean anxiety levels between the two variables. The t-statistic of -10.36635287 and the corresponding p-values significantly below from 0.05 significance level suggest that the mean anxiety level in Variable 2 is significantly higher than in Variable 1. This is supported by non-

overlapping confidence intervals and t-critical values, confirming the statistical significance of the difference. In summary, the data analysis indicates noticeable differences in anxiety levels between Variable 1 and Variable 2, with Variable 2 showing higher mean anxiety levels and lower variability compared to Variable 1.

The data from Table 3 highlight differences in depression levels between two variables. Variable 1 has an average depression level of 25.55, indicating a higher mean depression level compared to Variable 2, which has an average depression level of 12.775. This suggests that, on average, individuals in Variable 1 experience greater levels of depression compared to those in Variable 2. Moreover, the variance of depression levels is 17.02307692 for Variable 1 and 43.10192308 for Variable 2. Variance measures how spread out the data points are around the mean, with higher variance indicating greater variability in depression levels. Hence, Variable 2 shows greater variability in depression levels compared to Variable 1, indicating that depression levels among individuals in Variable 2 vary more widely.

This suggests that there is almost no linear association between depression levels in Variable 1 and Variable 2. However, the correlation is extremely close to zero, implying that other factors may independently influence depression levels in each variable. Furthermore, t-test results gives a notable difference in mean depression levels of two variables. With a t-statistic of 10.28460031 and corresponding much lower than significance level of 0.05, it suggests that the mean depression level in Variable 1 is significantly higher than in Variable 2. This conclusion is supported by non-overlapping confidence intervals and t-critical for both one-tail and two-tail tests, confirming statistical significance of the difference.

In summary, the descriptive statistics and t-test outcomes highlight noticeable distinctions in depression levels between Variable 1 and Variable 2, with Variable 1 showing higher mean depression levels and lower variability compared to Variable 2.

In summary, the examination of stress, anxiety, and depression levels across Variable 1 and Variable 2 reveals distinctive trends in each parameter. Variable 2 shows significantly higher mean stress levels compared to Variable 1, while Variable 1 displays greater variability in stress levels. However, the weak correlation between stress levels in the two variables indicates that additional factors may independently impact stress levels. Similarly, Variable 2 exhibits notably higher mean anxiety levels compared to Variable 1. Despite a moderate positive linear relationship between anxiety levels in both variables, the correlation is not robust, implying that other factors may influence anxiety levels autonomously. Regarding depression levels, Variable 1 stands out with significantly higher mean depression levels compared to Variable 2. Although depression levels vary more widely in Variable 2, there is almost no linear association between depression levels in the two variables. In summary, these findings suggest that individuals in Variable 2 tend to

experience increased the level of conditions compared to those in Variable 1. Moreover, this analysis underscores the intricate nature of these mental health indicators, with various factors potentially influencing their expression independently in each variable.

REFRENCES

- Hassan, Raihan, et al. "Depression, anxiety and stress among obese patients with chronic illnesses: Prevalence and associated factors in North East Malaysia." Bangladesh Journal of Medical Science 18.2 (2019): 252.
- Lykouras, L., and J. Michopoulos. "Anxiety disorders and obesity." Psychiatriki 22.4 (2011): 307-313.
- Heidari-Beni, Motahar, et al. "Relationship between obesity and depression, anxiety and psychological distress among Iranian health-care staff." Eastern Mediterranean Health Journal 27.4 (2021): 327-335.
- Rosenbaum, Diane L., and Kamila S. White. "The relation of anxiety, depression, and stress to binge eating behavior." Journal of health psychology 20.6 (2015): 887-898.
- Esposito, Maria, et al. "Anxiety and depression levels in prepubertal obese children: a case-control study." Neuropsychiatric disease and treatment (2014): 1897-1902.
- Abouzed, Mohamed, et al. "Relation of depression and anxiety disorders in choosing obesity management in obese patients." International Journal of Preventive Medicine 13 (2022).
- Alsaleem, Mohammed Abadi. "Depression, anxiety, stress, and obesity among male adolescents at Abha City, Southwestern Saudi Arabia." The Journal of Genetic Psychology 182.6 (2021): 488-494.
- Rosenbaum, Diane L., and Kamila S. White. "The relation of anxiety, depression, and stress to binge eating behavior." Journal of health psychology 20.6 (2015): 887-898.
- Skilton, M. R., Moulin, P., Terra, J. L., & Bonnet, F. (2007). Associations between anxiety, depression, and the metabolic syndrome. Biological psychiatry, 62(11), 1251-1257.
- Zhao, G., Ford, E. S., Dhingra, S., Li, C., Strine, T. W., & Mokdad, A. H. (2009). Depression and anxiety among US adults: associations with body mass index. International journal of obesity, 33(2), 257-266.