Causes and Consequences of Obesity among Males in District Faisalabad

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Abstract
According to research, obesity is defined as having a body weight that is higher than the ideal weight for the person's age and height, while obesity is defined as having an excessive amount of unwanted fat stored in the body. The primary goal of this study was to identify the factors that contribute to obesity and its effects in Faisalabad district. One District in Punjab, Faisalabad, was the site of the study. Two hundred Faisalabad residents made up the study's sample. A pre-tested interview schedule that was well-structured and included both open-ended and closed-ended questions was used to gather the data. Each student's weight and height were also recorded using calibrated scales. For every respondent, the body mass index (BMI = weight (kg)/height (m2)) was computed. A questionnaire was prepared in light of the research objectives, and research hypothesis' pre-testing on 15 respondents. The analysis demonstrate that over eating sedentary lifestyle, no interest in physical activities, depressions about gaining weight, teasing and bulling behavior of others and more eating in social activities were the contributing factors of the obesity. The study finding also reviles the implications of the obesity such as difficulty in walking, shortness of breath, joint pain, fatigue and social isolation. The influential analysis indicates family income, family size, family history, eating habits and life styles were the correlates of the obesity. The analysis also identified social, psychological and health implications of the obesity. In the light of research findings active lifestyle such as healthy eating,

physical activities like walking, jogging, gym and sports are recommended to minimize over weight and obesity.

Key words: *Obesity, Body mass index (BMI), Faisalabad*

Introduction

Obesity can have detrimental impacts on one's health and is caused by an excessive or inappropriate accumulation of adipose tissue, or fat, in the body. Obesity has become worse and spread like wildfire during the last half century. An estimated $100 billion is the yearly economic burden in the United States. We now know that a number of global sociocultural factors exacerbate gender disparities in excess weight gain. Although women report eating healthier diets than men, a number of contextual factors may cause them to consume more items high in sugar. Obese or overweight people are more likely to get prostate, colon, and rectum cancers. Overweight people are more likely to develop breast cancer, uterine lining cancer, and gallbladder cancer. Obese or overweight people are more likely to get prostate, colon, and rectum cancers. Obese or overweight women have a higher risk of developing breast cancer, uterine lining cancer, and gallbladder cancer. Obesity is a complicated disorder that is diagnosed when a person weighs more than what is considered healthy for their height. Obesity affects both adults and children. (Puhl & Suh, 2015)

Global Significance and Implications

Globally, obesity has reached epidemic proportions, affecting millions of people across different age groups and regions. The implications of obesity are extensive, encompassing various health, economic, and social dimensions. Many chronic diseases, such as type 2 diabetes, heart disease, high blood pressure, and some types of cancer, are linked to obesity (WHO, 2000). The increased health risks necessitate more frequent medical interventions, impacting overall quality of life. Fat has a significant financial impact, including direct medical expenses for treating illnesses linked to fat as well as indirect costs from lost productivity and early death. In the United States, obesity-related healthcare costs run into billions of dollars annually (Kiess et al., 2004). Obesity can lead to stigma, discrimination, and psychological distress. Individuals with obesity often face bias and negative stereotypes, affecting their mental health and social interactions (WHO, 2000).

Preventing obesity in children is relatively easy, but treating this epidemic is a difficult task. Nearly 30% of adult obesity starts in childhood, and Southeast Asia accounts for about 300,000 deaths annually from obesity, according to the World Health Organization. Childhood is the starting point for over 30% of adult obesity. According to the World Health Organization (2008), obesity causes over 300,000 deaths in Southeast Asia annually. Overcoming this issue will cost around $100 billion USD, including all countries. Only by maintaining a healthy weight by certain weight-avoiding behaviors, such as eating a balanced diet and engaging in regular physical activity, might children avoid the epidemic of overweight and obesity (Jennifer, 2003).

Nearly half of children who are overweight will grow up to be overweight adults, according to a number of scientific papers. Children in households with overweight and obese adults are at serious danger from these risk factors; they carry obesity and its associated conditions. Compared to children from families with no evidence of cardiovascular disease, children from those with a prevalence of the condition are more likely to grow up to be fat. It is clear that a youngster who is obese has higher risk factors that could cause him to grow up to have cardiovascular disease. Obesity in children is associated with an increased risk of morbidity and mortality, among other epidemics. Obesity-related increases in all causes of mortality are a persistent trend. Overweight children who are obese and whose parents suffer from cardiovascular disease as a result of their obesity are at a significantly increased risk of dying from cardiovascular disease as adults. BMI higher than the Men who were in the 70th percentile compared to the 25th percentile during their formative years had a higher chance of dying from coronary heart disease (CHD), whereas women were not affected. Both men and women had a higher related risk for every cause of death. (Zock et al., 1997).

The advancements and difficulties in putting obesity prevention strategies into practice globally were covered by Lyn et al., (2019). The authors stress the necessity of robust consumer, business, and governmental initiatives to promote obesity prevention laws. They stress the significance of using equity-focused frameworks to target vulnerable communities, mobilize civil society, and lessen the influence of commercial interests. Shafiee et al., (2024) assessed the prevalence of obesity and overweight among medical students globally. The study found that the overall pooled prevalence of overweight among medical students was 18%, with obesity at 9%. The authors highlight the importance of understanding the extent and contributing factors of obesity among medical students to develop targeted interventions.

The WHO provides comprehensive information on the global prevalence and implications of obesity. According to their data, in 2022, around the world, 1 in 8 persons suffers from obesity. According to the report, adolescent obesity has quadrupled and adult obesity has more than doubled globally since 1990. The World Health Organization highlights that obesity raises the risk of cardiovascular disease, type 2 diabetes, and some types of cancer. Misra et al., (2019) emphasized the traits of South Asian obesity, its connection to morbidities, and its treatment. In comparison to white persons, South Asians had lesser skeletal muscle mass and more body fat at the same or lower BMIs, according to the authors1. Increased risks of cardiovascular disease and type diabetes are linked to this "high body fat-normal BMI-low muscle mass" profile. The review emphasizes the need for ethnic-specific guidelines and early, aggressive interventions to manage obesity in South Asians. Bansal et al., (2023) provide a comprehensive review of studies on overweight and obesity among South Asian children and adolescents. The study found that the pooled prevalence of obesity was 6.6% and overweight was 12.4%. They highlight the necessity

for large-scale awareness efforts and context-specific preventative methods to address the rising obesity rates in this population.

All age groups' eating habits and behavioral patterns are changing as a result of the growing industrialization, urbanization, and mechanization that is taking place in the majority of the world's nations. Foods with high fat content, high energy content, and low micronutrient content have been found to have declining quality. Additionally, sedentary lifestyles are getting more and more common. It has also been observed that developing countries experience economic transitions, and concurrently, there is a growing obesity epidemic among the populace and among different individuals residing in the same household. Chronic undernutrition is another phenomenon that occurs in the developing world and contributes to the development of other diseases. Even though Pakistan is on the list of nations with undernourished populations, there is childhood obesity there. The Asia-Pacific Regions will contrary to the conventional worldwide guidelines of more than 25 and more than 30 for overweight and obesity, respectively, use a Body Mass Index (BMI) of more than 23 for overweight and more than 25 for obesity (Anuurad et al. 2003).

Pakistan Perspective

Randhawa et al., (2020) assesses the nationwide prevalence of obesity across Pakistan. Conducted across 11 cities, the study included individuals aged 15 years and older1. The findings revealed that 88.2% of the participants were obese, and 6.7% were overweight. The study highlighted significant associations between obesity and factors such as middle age, hypertension, and lack of exercise, sedentary professions, and eating habits. Asif et al., (2019) the prevalence of overweight and obesity among Pakistani adults were examined using secondary information from a residential survey of the general public. Out of 10,063 participants, 22.8% were overweight, and 5.1% were obese, according to the study. Sociodemographic characteristics include marriage status, sex, and approximately one-fourth of Pakistan's population is overweight or obese if we compare them to the standardized BMI cut-off values established for the Asian and Pacific regions. Lower than the suggested BMI cutoff values will need to be established if individuals with high-risk diabetes and hypertension can be recognized, and if Pakistan and other Asian nations are to reach a healthy targeted objective. According to Pakistan's National Health Survey, the obesity epidemic is more prevalent in cities and less so in rural areas. Body weight categories were substantially correlated with residential area. As a response variable, childhood obesity is closely associated with sedentary lifestyles characterized by high calorie intake, low levels of physical exercise, and high socioeconomic position. Children who grow up with healthy eating habits are more likely to keep them up as adults and are less likely to develop chronic illnesses like diabetes, osteoporosis, cardiovascular disease. (World Health Organization, 2000)

The Current Rate of Obesity, Overweight, and Underweight in Pakistani School-Aged Children Associated with Demographic Factors and Adolescents Overweight and Obesity

Prevalence and Socioeconomic Correlates in Pakistani Primary School Students. Mushtaq et al., (2011) conducted a population-based cross-sectional study to investigate the prevalence of overweight and obesity among primary school students in Lahore, Punjab, as well as its socioeconomic implications. 1,860 youngsters between the ages of 5 and 12 participated in the study. According to the results, 7.5% of the kids were fat and 17% were overweight. According to the study, children who live in metropolitan regions with greater socioeconomic level are more likely than those who live in rural areas to be overweight or obese.

Research Questions

1. What are the socio-economic and demographic characteristics of obese males in Faisalabad?
2. What are the prevalence and levels of obesity among males in Faisalabad?
3. What are the primary causes of obesity among males in Faisalabad?
4. How does obesity impact the socio-psychological health of males in Faisalabad?
5. What interventions can effectively reduce obesity rates among males in Faisalabad?

Objectives

1. To examine socio-economic and demographic, characteristics of the respondents (married persons).
2. To identify the level of obesity among the respondents.
3. To explore the causes of obesity among the respondents.
4. To identify socio- psychological and health implications of the obesity among the respondents.
5. To suggest measures to address the growing level of obesity for creating health environment.

Hypothesis

H1: Family income is associated with respondents 'obesity.
H2: Family size has bearing upon the obesity of the respondents.
H3: There is a relationship between family history and obesity of the respondents.
H4: Obesity of the respondents is associated with their social, psychological and health implications.
H5: Eating habits are associated with obesity of the respondents.
H6: Life style of respondents (exercise) is associated with obesity of the respondents.

Methodology

The prevalence and causes of obesity among males in Faisalabad were evaluated using a quantitative research approach. The purpose of this design was to make it easier to gather numerical data that could be statistically examined to find trends, connections, and correlations among the different factors affecting obesity. By using a cross-sectional survey approach, information from a sample of respondents were gathered. This approach helps pinpoint the causes of obesity and gives a quick overview of the condition's current

prevalence in the population. The study's target population included adult males aged 18 years and older residing in District Faisalabad. This respondents were selected due to the rising prevalence of obesity in urban male populations and the unique socio-economic and cultural factors influencing their dietary habits and lifestyle choices. For the analysis, a sample size of 200 males was found to have enough statistical power. This sample size was deemed appropriate to allow for meaningful comparisons and generalizations within the population. A standardized questionnaire intended to evaluate a number of obesity-related characteristics, such as eating patterns, levels of physical activity, socioeconomic status, and psychological aspects, was used to gather data. Both closed-ended and open-ended questions were included in the survey to facilitate both qualitative and quantitative analysis.

Results and Discussion

Table 1: Distribution of respondents by their age, education and income.

Ages	Frequency	Percentage
18 to 30	40	20
31 to 40	85	42.5
41 to 50	75	37.5
Educational Achievements		
No formal	20	10
Primary	40	20
Secondary	60	30
Bachelor's	50	25
Master's	30	15
Monthly Incomes		
Less than 15,000	70	35
30,000 to 50,000	90	45
Above 50,000	40	20

Table 1 shows the distribution of the respondents according to their age. Table reveals that 20% of the respondents were between the age of 18 and 30. Additionally, 42.5% of surveyed respondents were between the ages of 30 and 40. 37.5% of the remaining respondents were between the age of 41 and 50. Table 1 indicates the academic level of the respondents. Table shows that the majority of respondents (30%) had completed secondary school. 25% of those surveyed held a bachelor's degree, 20% of those surveyed had only completed primary school and 15% of those surveyed held a master's degree or above. Very small portion of respondents had no formal education, and their percentage

was 10%. Education level is closely linked to health behaviors and awareness. People with higher educational attainment are more likely to engage in physical activity and make healthier dietary choices, reducing their risk of obesity (Adams, 2020). Table also indicates that monthly income of respondents. Table reveals that 45% of the respondents were in the category of 30,000 to 50,000. 35% fell in the low-income category and remaining of the respondents fell in above 50,000 categories, their percentage was 20%. Jobs that require physical labor may contribute to higher energy expenditure, while sedentary office jobs can lead to weight gain. Additionally, job stress and long working hours can negatively impact health behaviors, increasing the risk of obesity (Adams, 2020). Socio-economic status (SES) is a critical determinant of obesity. Higher earners and educated people frequently have more access to wholesome foods, recreational opportunities, and healthcare services, which can help prevent obesity (Ball & Crawford, 2010). Jobs that require physical labor can contribute to higher energy expenditure, while sedentary office jobs can lead to weight gain. Job stress and long working hours can negatively impact health behaviors (Albuquerque et al., 2017). Obesity is a complex public health issue influenced by various factors, including socio-economic status (SES). SES encompasses elements such as income, educational attainment, occupational prestige, and access to resources. Research has shown that socio-economic factors play a significant role in the prevalence and distribution of obesity. Income and access to resources: Individuals with lower income levels often have limited access to healthy food options and recreational facilities, contributing to higher rates of obesity. In contrast, those with higher income levels can afford healthier food choices and have better access to fitness centers and parks (Adams, 2020).

Table 2: High-calorie and water intake.

High Calorie	Frequency	Percentage
Yes	120	60
No	80	40
Water Intake Daily		
Less than 1 liter	60	30
1–2 liters	100	50
More than 2 liters	40	20

Table 2 indicates the consumption of High-calorie snacks (e.g., chips, chocolates) between meals by respondents. Table reveals that majority of the respondents consumed high-calorie snacks (e.g., chips, chocolates) consumed between meals, their percentage was 60% and the remaining respondents consumed less high-calorie snacks consumed between meals their percentage was 40%. The availability of healthy food options in neighborhoods can significantly affect dietary choices. Areas with limited access to fresh produce and

nutritious foods, often referred to as "food deserts," are associated with higher obesity rates (Mackenbach et al., 2014). Table reveals that a significant percentage of respondents consumed less than one-liter water daily and their percentage was 30%. Half of the responders consumed 1-2 liters of water daily and the percentage was 50%. The remaining respondents consumed more than 2 liters of water daily and their percentage was 20%. The availability of healthy food options in neighborhoods can significantly affect dietary choices. Areas with limited access to fresh produce and nutritious foods, often referred to as "food deserts," are associated with higher obesity rates (Mackenbach et al., 2014).

Table 3: Respondents respond of physical activities, prolonged sitting, transportation methods and availability of time for regular physical activity.

Physical activity	Frequency	Percentage
Walking	80	40
Jogging/running	30	15
Gym/workouts	20	10
Sports	40	20
None	30	15
Prolonged Sitting		
Yes	140	70
No	60	30
Transportation Methods		
Walking	10	5
Cycling	20	10
Public transport	90	45
Personal vehicle	80	40
Time Availability for Regular Physical Activity		
Yes	90	45
No	110	55

Table 3 indicates the physical activities of the respondents. 40% of the respondents were engaged in walking, 20% of the respondents were engaged in sports and a small percentage of respondents were engaged in jogging/running 10% and 15% of the respondents were engaged in gym workouts. The design of communities, including the availability of parks, recreational facilities, and walkable spaces, can encourage or discourage physical activity. Environment that promotes active lifestyles can help to reduce the extent of obesity (Mackenbach et al., 2014). Table also indicates that workplace required prolonged sitting, 70% of the respondents required prolonged sitting at workplace and the remaining of the

respondents did not require prolonged sitting, their percentage was 30%. Table shows 45% of the respondents usually travelling through public transport and the 40% of the respondents had their personal vehicles to travel. The 10% the respondents travel through cycling, remaining respondents travel through walking and their percentage was 15%. The layout of cities and neighborhoods can influence lifestyle behaviors. Urban sprawl and land use mix have been linked to higher obesity rates (Mackenbach et al., 2014). Table reveals that 55% of respondents had not sufficient time for physical activities.

Table 4: Psychological Factors.

Eat more during stressful situations	Frequency	Percentage
Yes	120	60
No	80	40
Self-Esteem Level		
High	70	35
Moderate	50	25
Low	80	40
Faced teasing or bullying related to your weight		
Yes	120	60
No	80	40

Table 4 shows the tendency of respondents to eat during stress, 60% the respondents had eaten more during stress. Cultural dietary habits play a significant role in obesity. Traditional diets rich in whole foods and balanced nutrients can promote a healthy weight, while diets high in processed foods and sugary beverages can contribute to weight gain (Albuquerque et al., 2017). Table reveals that 40% of the respondents had low self-esteem and 35% of the respondents had high self-esteem level. The bullying behavior faced by the respondents about their weight, 60% of the respondents faced bullying behavior related to their weight resulting in more stress and tension about the body image. Cultural standards of beauty and body image can influence eating behaviors and physical activity levels. Societies that idealize thinness may encourage healthier lifestyles, while those that accept or even celebrate larger body sizes may contribute to higher obesity rates (Ball & Crawford, 2010).

Table 5: Socio-Economic Barriers

Financial Constraints	Frequency	Percentage
Yes	110	55
No	90	45
Visiting Parks, Gyms, or Community Recreational Facilities		
Weekly	30	15
Monthly	50	25
Rarely	45	22.5
Never	75	37.5
Social Practices Influencing Eating Habits		
Yes	130	65
No	60	35

Table reveals the financial situation of the respondents, 55% of the respondents felt that financial situation limited their ability to purchase healthy foods. Table also indicates that how much respondents visited gyms, parks etc, majority of the respondents never visited gyms, parks and their percentage was 37.5%. The 22.5% of the respondents visited gyms very rarely. The social and cultural activities influenced eating habits of the respondents, 65% of the respondents felt that social practices influence their eating habits. Cultural norms around meal times, portion sizes, and social eating can impact caloric intake. For example, cultures that emphasize large family meals and social gatherings around food may lead to higher consumption of calories (Albuquerque et al., 2017).

Table 6: Response on Health, Obesity and Awareness Programs Elements.

Experience Due to Obesity	Frequency	Percentage
Difficulty in walking or exercising	60	30
Shortness of breath	40	20
Joint pain	45	22.5
Social isolation	15	7.5
Fatigue	40	20
Monitoring Weight		
Weekly	50	25
Monthly	80	40
Rarely	70	35
Awareness of Obesity Programs		
Yes	80	40
No	120	60

The respondents faced difficulties due to obesity, table 6 which reveals that 30% of the respondents faced difficulty in walking or exercising, 22.5% of the respondent faced joint

pain, 20% of the respondents faced shortness of breath and the 20% of the respondents faced fatigue. Table also indicates checking of weight regularly, 40% of the respondents monitored their weight regularly and 35% of the respondents monitored their weight very rarely and the remaining of the respondents monitored their weight every week and their percentage was 25%. The response of respondents on government programs about awareness of obesity was that the majority of the respondents were not aware of government programs about obesity and the percentage was 60% and the remaining respondents were aware of government programs about obesity and their percentage by 40%. Implementing policies that encourage the availability of inexpensive healthcare, safe recreational areas, and nutritious food can aid in lowering socioeconomic gaps in obesity. (Adams, 2020). Community-based programs that provide education on healthy eating and physical activity can empower individuals to make healthier choices, regardless of their socio-economic status (Adams, 2020).

Testing of Hypothesis

Table 7: Values of Chi-square and Gamma Tests as Obesity is Dependent Variable

Variables	Chi-square Value	Gamma Value
Family Income	21.5**	0.61**
Family Size	5.2^{Ns}	0.21^{Ns}
Family History	26.6**	0.72**
Eating Habits	17.4**	0.56**
Life style	23.5**	0.54**

** = Highly significant   Ns = Non-significant relationship

Hypothesis 1: Family income is associated with respondent's obesity

The relationship between family income and the obesity has been studied through the application of Chi-square and Gamma tests. The analysis indicates that the value of Chi-square between family income and the obesity is 21.5, which is highly significant at (P<0.01). The relationship between family income and obesity has been also established by gamma test. The value of Gamma test is 0.61, which is also significant at (P<0.01). The positive sign of Gamma value shows the direct relationship between the family income and obesity of the respondents. In other words, it can be said that higher the family income more likely will be the risk of obesity of the respondents. So, in the light of that discussion, the hypothesis "Family income is associated with respondent's obesity" is accepted. The other studies also identified the similar relationship between family income and obesity (Ling & Gebremariam, 2023).

Hypothesis 2: Family Size has bearing upon the obesity of the respondents.

Chi-square and Gamma tests are used to verify whether there is a relationship between family size and obesity of the respondents. The Chi-square test value is 5.2 that is not significant. It shows that the family size has no impact on the obesity of the respondents whether the family size is small, large or very large. It has no relation with obesity of the

respondents. The similar findings have been also established by Gamma test, reflecting in significant relationship between family size and the best of the respondents. So, the hypothesis "Family has bearing upon the obesity of the respondents" is established. Studies conducted by the various researchers could not find the impact of family size and the obesity of the respondents. In other words, whatever the family size there will be no impact on the obesity of the respondents.

Hypothesis 3: There is a relationship between family history and obesity of the respondents.

The relationship between family history and the obesity has been studied through the application of Chi-square and Gamma tests. The analysis indicates that, the value of Chi-square between family history and the obesity is 26.5, which is highly significant at alpha value of 1%. The relationship between family history and obesity also established by Gamma test. The value of Gamma test is 0.72, which is also significant at alpha value of 1%. The positive sign of Gamma test indicates that there is direct relationship between the between family history and the obesity of the respondents. In other words, it can be said that higher the family history more likely will be the obesity of the respondents. So, in the light of that discussion, the hypothesis "There is a relationship between family history and obesity of the respondents" is accepted. The other studies also identified the similar relationship between family history and obesity. (Gray et al., 2018).

Hypothesis 4: Eating habits are associated with obesity of the respondents.

The relationship between eating habits and the obesity of the respondents has been studied through the application of Chi-square and Gamma tests. The analysis indicates that, the value of Chi-square between eating and the obesity is 17.5, which is significant at alpha value of 1%. The relationship between eating habits and obesity also established by Gamma test. The value of Gamma test is 0.56, which is also significant at alpha value of 1%. The positive sign of gamma test indicates that there is direct relationship between the eating habits and the obesity of the respondents. In other words, it can be said that higher the eating habits more likely will be the obesity of the respondents. So, in the light of that discussion, the hypothesis "Eating habits is associated with obesity of the respondents" is accepted. The other studies also identified the similar relationship between eating habits and obesity. (Mayo Clinic, 2024).

Hypothesis 5: Life style of the respondents (exercise) is associated with obesity of the respondents.

The relationship between life style of respondents (exercise) and the obesity of the respondents has been studied through the application of Chi-square and Gamma tests. The analysis indicates that the value of chi-square between eating and the obesity is 23.5, which is highly significant at alpha value of 1%. The relationship between life style of respondents (exercise) and obesity also established by Gamma test. The value of Gamma test is 0.54, which is also significant at alpha value of 1%. The positive sign of Gamma test indicates

that there is a direct relationship between the between life style of respondents (exercise) and the obesity of the respondents. In other words, it can be said that higher the level of life style of respondents (exercise) more likely they are to exhibit obesity. So, in the light of that discussion, the hypothesis "life style of respondents (exercise) is associated with obesity of the respondents" is accepted. The other studies also identified the similar relationship between life style of respondents (exercise) and obesity. (Ling & Gebremariam, 2023).

Hypothesis: Obesity of the respondents is associated with their social, psychological and health implications.

Table 8: Values of Chi-square and Gamma Test and significant level, the independent variable is obesity.

Variables	Chi-square Value	Gamma Value
Social Implications	28.2**	0.63**
Psychological Implications	29.5**	0.69**
Health Implications	34.3**	0.79**

H6: Obesity of the respondents has social implications:
The Chi-square and Gamma test are used to identify the social implications of the obesity of the respondents. The value of Chi-square is 28.3, indicating that obesity of the respondents does effect the respondent's social dimensions. In Terms of feelings, interacting with other's feelings embarrassed due to the body shape. The Gamma test also established the positive relationship of the obesity and social implications on the respondents. So, the hypothesis "Obesity of the respondents has social implications" is supported. The other studies also identified the similar relationship between social implications and obesity. (Puhl & Suh, 2015).

H7: Obesity of the respondents has psychological implications
The Chi-square and Gamma test are used to identify the psychological implications of the obesity of the respondents. The value of Chi-square is 29.5, indicating that obesity of the respondents does effect the respondent's psychological dimensions. In Terms of emotions, interacting with other's feelings embarrassed due to body shape. The gamma test also established the positive relationship of the obesity and psychological implications on the respondents. So hypothesis "Obesity of the respondents has psychological implications" is supported.

The other studies also identified the similar relationship between psychological implications and obesity. (Ling & Gebremariam, 2023)

H8: Obesity of the respondents has health implications

The Chi-square and Gamma test are used to identify the health implications of the obesity of the respondents. The value of Chi-square is 34.3, indicating that obesity of the respondents does affect the respondent's health dimensions. In Terms of feelings, interacting with other's feelings embarrassed due to body shape. The Gamma test also established the positive relationship of the obesity and health implications of the respondents. So, the hypothesis "Obesity of the respondents has health implications" is supported. The other studies also identified the similar relationship between health implications and obesity. (Ling & Gebremariam, 2023).

Conclusion and Recommendations

This study was conducted to determine the causes and implications of obesity among male in the Faisalabad District. The findings reveal that the diary habits, sedentary life style, psychological factors, social and cultural norms, socio-economic conditions significantly contributed towards obesity among males. The study used a cross-sectional design and structured questionnaires to gather quantitative data from 200 male participants who were at least 18 years old. Financial variables contributed to their obesity. The analysis demonstrate that over eating sedentary lifestyle, no interest in physical activities, depressions about gaining weight, teasing and bulling behavior of others and more eating in social activities were the contributing factors of the obesity. The study finding also reviles the implications of the obesity such as difficulty in walking, shortness of breath, joint pain, fatigue and social isolation. The influential analysis indicates family income, family size, family history, eating habits and life styles were the correlates of the obesity. The analysis also identified social, psychological and health implications of the obesity. In the light of research findings active lifestyle such as healthy eating, physical activities like walking, jogging, gym and sports are recommended to minimize over weight and obesity. Due to the weak financial situation they were unable to purchase healthy food.

Based on the findings mentioned above, the following recommendations are directly generated.

- ➢ People need to get better education, particularly in areas related to health, which can enhance their knowledge about obesity and its associated health issues. Higher level of education can provide better awareness about preventive measures.
- ➢ People should avoid sedentary life styles and poor dietary habits.
- ➢ People should improve their physical activities, by engaging themselves in regular activities like exercises, walking, jogging, gym and sports etc.
- ➢ People should encourage local government to make better parks, gyms, and better and save places for exercise.
- ➢ Local government should ensure the availability of affordable health foods by supporting grocery stores and markets near residential areas. This would improve the access to nutritious options.

➢ People should improve their self-esteem level. As a better self-positive image can make their mental better.
➢ People should get advice regularly by health care providers. They should focus on their weight.
➢ People should improve their attitude, behavior and activities at social and cultural programs, where over eating tend to occurs.

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