

# Examining the Causes of Obesity and Their Effects on the Physical and Psychological Well-Being of Women Leaders in Qatari Society:

## An Empirical Study

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### Abstract

*This study aims to identify the main factors contributing to the rise in obesity rates among women in Qatari society and to examine its impact on their physical and psychological health. The research follows a positivist approach, using a questionnaire distributed to a random sample of distinguished women in leadership positions. Two hundred twenty-four questionnaires were distributed, and 220 were fully completed, forming the actual sample size. The study employs fundamental statistical analyses, including demographic distributions and percentage frequencies, and statistical tools, such as correlation analysis and regression analysis, to understand relationships between variables like poor dietary habits, physical activity levels, genetic predisposition, and socio-cultural norms. The findings indicate that poor dietary habits, cultural and social factors, genetic predisposition, and lack of physical activity are the main contributors to the high obesity rates among Qatari women. Obesity leads to physical health issues such as high blood pressure, diabetes, and heart disease, as well as psychological effects like increased depression and lower self-esteem. This study provides reliable data and statistics for future research, aiding a deeper understanding of obesity in Qatar. It offers practical recommendations for improving the health of women leaders through health education programs and the promotion of physical activity. Additionally, the study contributes to public awareness about obesity risks and encourages an improved quality of life within Qatari society.*

**Keywords:** *Obesity, Qatari society, women leaders, health, physical and psychological well-being, dietary habits, physical activity, social norms, cultural factors, and genetic predisposition.*

### Introduction

Obesity is a complex disease with multiple causes that are difficult to control. However, it remains one of the most prevalent medical conditions in the Arab world, particularly in the Gulf region, and one of the most challenging to treat and combat. A person can protect themselves from excessive weight gain by first modifying their lifestyle, choosing a healthy diet, and maintaining regular physical activity. This chapter will extensively and precisely discuss the causes of obesity and its effects on the health of women leaders, shedding light on key factors contributing to the spread of obesity in Qatari society, particularly among women.

Good health is one of the greatest blessings a person can have, enabling them to fully utilize their abilities and senses without the threat of life-threatening diseases. These diseases may be physical, affecting the body, or psychological, impacting the mind and emotions, which can hinder functionality and reduce an individual's ability to serve themselves and their community. A society with strong, healthy individuals is a productive one. As stated in the Quran:

"Indeed, Allah loves those who repent and loves those who purify themselves." (Surah Al-Baqarah: 222)  
"Eat and drink, but do not be excessive. Indeed, He does not like those who commit excess." (Surah Al-A'raf: 31).

Recent statistics reveal an alarming increase in obesity rates in Qatar, ranking the country 16th globally and second in the Arab world, according to the Global Obesity Observatory.

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Although multiple factors contribute to the spread of obesity, nutrition remains the primary cause, alongside genetic predisposition, lack of physical activity, and socio-cultural habits. The fast-paced modern lifestyle significantly increases the risk of obesity-related diseases, exacerbated by the high living standards and quality of life enjoyed by Qatari citizens.

The World Health Organization (WHO) defines obesity as an excessive accumulation of body fat that poses health risks (Abu Hamed, 2009). Obesity is associated with numerous life-threatening disorders, underscoring the need for further research into its causes and effects, particularly regarding women's physical and psychological well-being. Women play a crucial role in society, and their good health is essential for raising future generations capable of contributing to their nation's progress.

Obesity has become widespread in contemporary Qatari society, causing serious physical and psychological issues for Qatari families and increasing national healthcare costs. Among the most severe consequences of obesity are chronic diseases, dissatisfaction with body image, low self-esteem, difficulties in social and family relationships, workplace challenges, and an increasing trend toward surgical interventions and high-risk medical procedures. Lack of regular exercise, insufficient physical activity, consumption of unhealthy calories, social habits, and genetic factors have all contributed to the rising obesity rates in Qatari society. Many women in the community perceive obesity as merely a cosmetic issue and seek surgical solutions without considering the health risks associated with such procedures. Obesity significantly increases the likelihood of severe illnesses such as heart disease, diabetes, hypertension, and certain types of cancer, including breast cancer, which is directly linked to excess weight in women.

The health impact of obesity extends beyond the physical body. Women suffering from obesity often experience depression, low self-esteem, and hormonal imbalances, leading them to develop unhealthy eating habits and fall into cycles of emotional distress. Many studies have found a strong correlation between severe obesity and depression in women. However, it remains challenging to determine whether obesity causes depression or vice versa. Women often struggle to accept their external appearance due to negative societal perceptions, leading to a loss of self-confidence, increased depressive symptoms, physiological and psychological changes, and a tendency to consume more unhealthy food. This, in turn, perpetuates negative thinking, discourages adherence to exercise routines, and diminishes motivation for change.

#### *Healthcare Reports on Obesity among Qatari Women:*

A senior official from the Primary Health Care Corporation revealed that the obesity rate among Qatari women is higher than that of Qatari men, according to the national stepwise survey. The report also indicated that 71% of Qataris generally do not engage in any moderate or vigorous physical activity throughout the week. Losing weight is one of the top concerns of modern women. Achieving an ideal weight and maintaining a fit body undeniably boosts a woman's self-confidence and enhances her chances of societal success. This culture is becoming increasingly prevalent among women in Qatari society. However, consuming minimal energy daily is an indicator of a regular predisposition to immune diseases, such as diabetes and heart disease.

Raising awareness about the dangers of obesity in Qatari society requires collective efforts to encourage healthy eating habits and promote exercise from an early age. There is a need to spread awareness about the importance of family health, as the family is the cornerstone of a strong and developed society. Encouraging initiatives to educate women about the necessity of taking care of their health demands by enacting laws and policies to increase awareness, guidance, and support from an early stage. The affluence of Qatari women and the rise in their income levels have contributed to the increase in obesity rates due to the availability of a variety of foods and the growing reliance on fast food. Over the past five years, there has been a noticeable increase in dining out, leading to a social culture where families and friends gather outside the home to maintain social connections. While this trend has positive social aspects, frequent consumption of high-fat foods is behind many health problems and serious diseases.

Frequent social gatherings, family events, stress, and psychological pressures—such as raising children, being subjected to ridicule, or being compared in terms of appearance and intelligence—contribute to the rising obesity rates among women. Many do not follow a low-calorie diet or engage in physical activity due to their busy social schedules.

## Research Variables:

### *Independent Variable*

Several factors contribute to obesity or excessive fat accumulation. Some of these factors include unhealthy eating habits, societal and cultural influences, lack of physical and mental exercise among women, and genetic and hereditary factors, which play a significant role in obesity development. These independent variables impact women's physical and psychological health (dependent variables). This study will explore these factors in detail.

### *Unhealthy Eating Habits:*

Different types of food provide the necessary energy for daily activities. However, some women adopt unhealthy eating habits regarding food choices and consumption patterns, often unaware of the risks these habits pose to their health and weight. The widespread reliance on fast food and delivery apps has exacerbated the issue, making unhealthy food easily accessible. Studies have shown a significant increase in Qatari women's reliance on restaurants. The fast pace of modern life further influences food choices. Unhealthy eating habits are "incorrect behaviours in selecting and consuming food in terms of type and quantity" (Ishida, 2020). To maintain optimal physical health, it is essential to adhere to the saying of the Prophet Muhammad (peace be upon him): "We are a people who do not eat until we feel hungry, and when we eat, we do not overeat." This highlights the importance of balance in food consumption and timing.

### *Societal Habits:*

Social customs play a significant role in the spread of obesity in our society, mainly due to frequent banquets, family gatherings, and social events. The habitual overconsumption of food, especially high-sugar and high-fat foods, contributes to rising obesity rates. The perception that a fuller figure is more attractive persists among specific segments of society despite the gradual decline of such beliefs. Additionally, obesity rates among women tend to rise during Ramadan, as excessive food consumption during the short eating window leads to fat accumulation, especially in the absence of regular exercise.

In many social gatherings, women may unknowingly consume large amounts of food, as the focus is often on conversations rather than mindful eating. Furthermore, societal norms restrict women's outdoor activities, limiting their participation in physical exercises. Societal habits are "behavioural patterns and cultural heritage passed down within a community, shaping its traditions and norms."

### *Cultural Factors:*

Cultural influences significantly impact obesity rates. Traditional Qatari cuisine often includes high-fat foods, especially in social gatherings and seasonal celebrations. The lack of awareness regarding healthy dietary choices exacerbates the issue. Additionally, cultural norms may restrict women's participation in certain physical activities, limiting their opportunities to maintain a healthy lifestyle. In particular, Qatari female leaders lack the encouragement to maintain their ideal weight. An urgent need is for integrated awareness programs tailored to the local cultural and social context. Authorities must assess the cultural factors affecting Qatari women and how these influence lifestyle and family nutrition.

### *Lack of Exercise:*

Physical inactivity and low fitness levels among Qatari female leaders lead to various health issues, increasing the risk of life-threatening conditions. The Ministry of Culture and Sports surveyed Qatari women's

attitudes toward sports, highlighting the vital role of exercise in maintaining physical, psychological, and social well-being. Qatar's Vision 2030 emphasises encouraging women to participate in sports as a broader strategy to build a healthier society. Recognising the importance of exercise, the country has designated an annual National Sports Day to promote awareness of its benefits. The government has also launched several sports clubs for women, but participation remains limited to specific age groups.

Despite efforts to encourage women's involvement in sports, many women still do not incorporate physical activity into their daily routines. Promoting sports as a way of life is essential in reducing chronic diseases and improving overall well-being.

#### *Genetic Factors:*

Genetic and environmental factors are among the primary causes of obesity. Studies have shown that obesity patterns can be influenced by hereditary factors starting from pregnancy. Pregnant women must maintain a balanced diet, avoid stress and exhaustion, and refrain from excessive mental and emotional strain. Reports from the Primary Health Care Corporation indicate a rise in obesity rates in Qatar, with 54% of patients visiting nutritional clinics being classified as obese. The primary causes include overeating, reliance on processed foods, and lack of physical activity. Genetic predisposition also plays a significant role in increasing obesity rates, as certain hereditary traits make individuals more susceptible to severe health risks, including breast and ovarian cancer, as well as endometrial cancer. A lack of awareness further exacerbates the impact of genetic factors on obesity in Qatar.

#### **Dependent Variables:**

The physical and mental health of female leaders are considered dependent variables affected by the causes of obesity. These variables will be briefly defined as follows:

##### *First: Physical Health of Female Leaders*

Physical health refers to an individual's ability to maintain all vital functions of the body, providing energy, strength, and resilience. It is also a lifestyle that allows individuals to enjoy a high quality of life. Physical and sports activities keep the body healthy, strengthen muscles, and improve organ function. Maintaining physical health undoubtedly enhances self-satisfaction, as bodily health contributes to mental and emotional well-being while protecting against anxiety and depression. Physical health is the essence of life and the key to happiness. A person's habits and daily routine are crucial in preventing diseases, necessitating adherence to a proper and consistent healthy eating pattern.

A woman's body differs from a man's, making her more vulnerable to certain life-threatening conditions. Therefore, she needs to focus on proper nutrition by consuming a balanced diet that includes all essential nutrients. Additionally, physical activity helps burn fat, boost morale, promote prevention, and improve lifestyle quality.

##### *Second: Mental Health of Female Leaders:*

Mental health is a state of reassurance and emotional stability that enables individuals to cope with life's pressures and achieve their work and learning objectives. It also refers to a person's ability to reach psychological harmony with themselves and society, confront crises positively, and find solutions. It represents a state of emotional and cognitive well-being, forming a psychological shield that strengthens resilience against illnesses, fosters self-confidence, and enhances overall well-being. Society plays a significant role in shaping a woman's psychological state, influencing the level of support she receives, her perception of social pressures, and her adaptation to life's challenges. Studies have shown that obesity can be linked to psychological factors rather than just organic or medical reasons. According to *Psychopathology and Its Relationship to Obesity* (Khloufi Lamiya, 2018), depression affects both the mind and body, influencing a person's thoughts and behaviours.

Thus, women struggling with excess weight should consult mental health specialists to identify the psychological triggers of obesity and develop appropriate strategies for safe and healthy weight loss. Recently, an increasing number of Qatari women have resorted to surgical weight-loss procedures such as liposuction and gastric sleeve surgery. This trend reflects the psychological state of female leaders, who may turn to unsafe and risky methods for weight loss.

## Research Problem

The current study addresses the need to understand the causes of obesity in Qatari society and its effects on female leaders' physical and mental health. There is a strong correlation between obesity-related health conditions such as high blood pressure, infertility, fatigue, and depression. Achieving societal progress and prosperity requires improving healthcare and social welfare to ensure the well-being and strength of its members. Qatar's Vision 2030 aims to secure a high quality of life for future generations by providing excellent services, particularly in the healthcare sector, to protect and sustain public health while reducing disease prevalence.

Obesity has emerged as a significant public health concern in Qatar over the past five years. Despite the country's small geographic size and relatively low population, obesity rates continue to rise, particularly among women. Qatar ranks 16th globally and second in the Gulf region for obesity prevalence.

## Research Objectives

Obesity has become a defining health issue of our time due to its significant risks to overall well-being. While medical factors contribute to obesity, it is also heavily influenced by physical and psychological factors. This study aims to investigate the causes of obesity and its effects on female leaders' physical and mental health. The research objectives are outlined as follows:

### 1. Understanding the causes of obesity and its impact on the physical health of female leaders:

(1-1) Examining the impact of unhealthy eating habits on physical health.

(1-2) Analysing the influence of societal customs on physical health.

(1-3) Exploring the role of cultural factors in physical health.

(1-4) Investigating the effects of reduced physical activity on physical health.

(1-5) Assessing the impact of genetic factors on physical health.

### 2. Understanding the causes of obesity and its effects on the mental health of female leaders:

(2-1) Examining the impact of unhealthy eating habits on mental health.

(2-2) Analysing the influence of societal customs on mental health.

(2-3) Exploring the role of cultural factors in mental health.

(2-4) Investigating the effects of reduced physical activity on mental health.

(2-5) Assessing the impact of genetic factors on mental health.

## Research Questions

Obesity presents a significant health challenge for female leaders in their communities, with many women struggling with excess weight across various age groups. This condition affects their overall quality of life

and well-being. To address this issue, it is essential to identify the primary causes of rising obesity rates among Qatari women and examine its effects on their physical and mental health. This study seeks to answer the following key research questions:

1. Does obesity impact the physical health of female leaders?

(1-1) Is there a relationship between unhealthy eating habits and physical health?

(1-2) Does Qatari social customs correlate with physical health?

(1-3) Does Qatari culture influence the physical health of female leaders?

(1-4) Does a lack of physical activity among female leaders affect their physical health?

(1-5) Is there a genetic link to physical health issues related to obesity?

2. Does obesity impact the mental health of female leaders?

(2-1) Is there a relationship between unhealthy eating habits and mental health?

(2-2) Does Qatari social customs correlate with mental health?

(2-3) Does Qatari culture influence the mental health of female leaders?

(2-4) Does a lack of physical activity among female leaders affect their mental health?

(2-5) Is there a genetic link to mental health issues related to obesity?

### **Theories Related to the Causes of Obesity and Its Effects on the Physical and Psychological Health of Female Leaders**

Several theories discuss the causes of obesity and its impact on the health of female leaders. The most significant theories include:

- **Biological Theory:** This theory suggests that genetic, hereditary, and hormonal factors contribute to obesity. For example, appetite hormones can influence the desire to consume large quantities of food, leading to weight gain.
- **Behavioural Theory:** This theory focuses on eating habits and physical activity levels. A sedentary lifestyle combined with unhealthy eating contributes to weight gain. The characteristics of this theory will be discussed in detail later.
- **Psychological Theory:** This theory relates to psychological factors such as anxiety, stress, depression, and emotional instability, which can contribute to obesity. Some individuals turn to food as a way to cope with negative emotions, resulting in weight gain and, consequently, obesity.
- **Social Theory:** Social and environmental factors influence weight gain by encouraging the consumption of unhealthy foods and making them readily available while healthier options are less accessible. Social pressures, such as cultural ideals of beauty and body weight, also contribute to adopting dangerous eating patterns.

#### *Behavioural Theory*



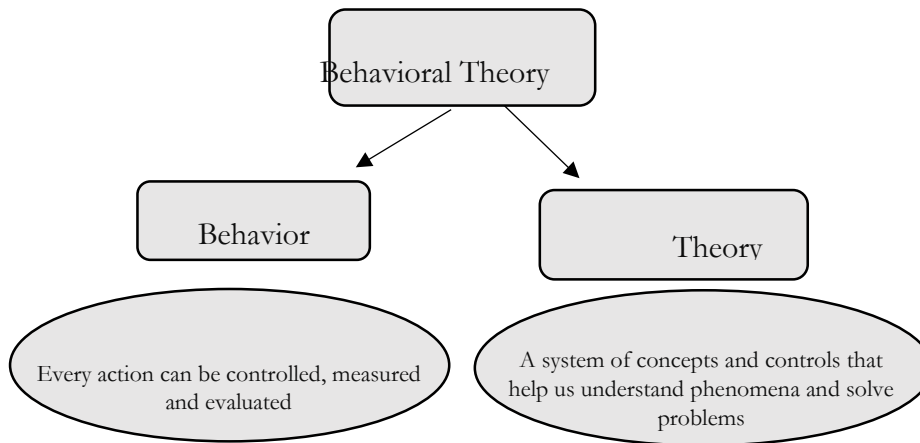


Figure 1: Behavioral Theory, Prepared by the researcher

Russian scientist Pavlov's Behavioral Theory discusses how individuals interact with their environment and how this affects their behaviour and lifestyle choices. Behavioural obesity treatment is currently considered the most effective, as strategies have been developed to address the underlying causes of obesity and the severe diseases associated with it (Theoretical and Social Issues in Behavioral Treatments for Obesity). The behavioural theory views unhealthy eating habits as a primary cause of weight gain. These habits often include consuming large quantities of high-calorie foods filled with saturated fats and added sugars, leading to weight gain.

These dietary behaviours can be measured and analysed in cases of obesity, as they stem from unhealthy eating practices. The theory posits that a sedentary lifestyle lacking structured physical activity is also a major contributor to various obesity-related illnesses. Prolonged sitting at work can negatively impact the health of female leaders, increasing their risk of obesity. Many women are influenced by their surroundings—if the environment promotes the consumption of high-fat and calorie-dense foods, these behaviours can lead to weight gain and serious health problems due to poor dietary choices.

### *Psychological Theory*

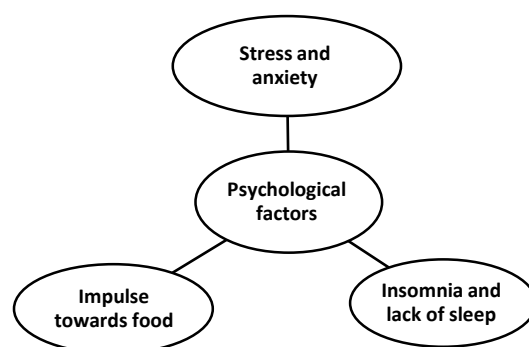


Figure 2: Psychological Theory, Prepared by the researcher

Obesity is a health condition characterised by excessive fat accumulation in the body. It may result from various factors, including genetics, behavioural patterns, and a lack of physical activity. However, psychological factors such as stress, anxiety, and depression significantly impact eating habits and activity levels, often leading to weight gain and obesity, particularly among women. Many women use food to cope with negative emotions, consuming unnecessary amounts of food, which leads to fat accumulation and increases the risk of obesity.

There is a strong connection between emotions and food; people often seek food when bored, lonely, sad, or angry. This can lead to unconscious overeating and, ultimately, weight gain. Poor impulse control and an inability to curb appetite due to psychological issues can lead to obesity and its complications, such as diabetes and heart disease. Additionally, poor sleep habits, insomnia, and irregular sleep patterns caused by psychological disturbances can drive individuals to consume unhealthy, calorie-dense foods, further contributing to weight gain and obesity.

### Research Framework and Variables

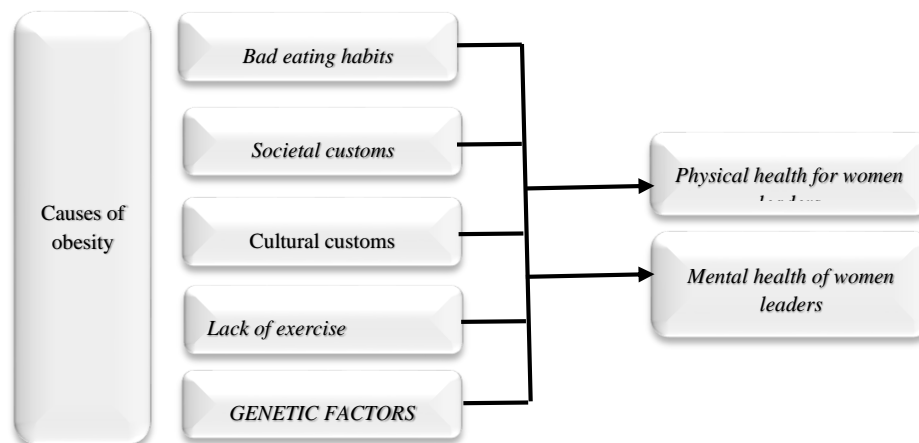


Figure 3: Research Framework and Variables, Prepared by the researcher

### Study Hypotheses

The hypotheses of this study on the causes of obesity and its effects on the physical and psychological health of female leaders include several key points to be incorporated into the research design. These include hypotheses about unhealthy dietary habits, social and cultural factors, physical activity's importance, and genetic influences. By examining these hypotheses, the study aims to understand the relationship between these factors and obesity and their physical and psychological effects, using appropriate research methodologies such as reviewing previous studies, analysing sample results, and drawing conclusions. The current study hypotheses are as follows:

1. There is an inverse relationship between the causes of obesity and the physical health of female leaders.

(1-1) There is an inverse relationship between unhealthy eating habits and the physical health of female leaders.

(1-2) There is an inverse relationship between social factors and the physical health of female leaders.

(1-3) There is an inverse relationship between cultural habits and the physical health of female leaders.

(1-4) There is an inverse relationship between lack of exercise and the physical health of female leaders.



- (1-5) There is an inverse relationship between genetic factors and the physical health of female leaders.
2. There is an inverse relationship between the causes of obesity and the psychological health of female leaders.
- (2-1) There is an inverse relationship between unhealthy eating habits and the psychological health of female leaders.
- (2-2) There is an inverse relationship between social factors and the psychological health of female leaders.
- (2-3) There is an inverse relationship between cultural habits and the psychological health of female leaders.
- (2-4) There is an inverse relationship between lack of exercise and the psychological health of female leaders.
- (2-5) There is an inverse relationship between genetic factors and the psychological health of female leaders.

## Research Methodology

Research methodologies represent the systematic procedures of a study, guiding the researcher in defining the research problem. Selecting the topic and determining its focus from the outset dictate the appropriate research methodology. When numerical data is crucial, the descriptive method is preferred for a detailed study analysis. If the study requires a historical perspective, the historical process is employed. An analytical method is suitable for an in-depth exploration of a problem, while experimental techniques are used in applied scientific research requiring practical testing and comparison. Research focusing on phenomena, hypotheses, and conclusions relies on the philosophical approach.

This study employs a quantitative methodology to examine the causes of obesity and its effects on women's physical and mental health in leadership positions. The research is conducted using a field survey method, collecting data through questionnaires distributed to a random sample of 200 women holding leadership positions in Qatari society. This methodology was chosen because it provides a comprehensive understanding of reality by quantitatively and qualitatively analysing data to derive generalisable conclusions. Data was collected using appropriate statistical tools to examine relationships between factors such as unhealthy eating habits, lack of physical activity, cultural and societal practices, and genetic factors. Additionally, the study analyses the psychological effects of obesity, including depression and low self-esteem.

### *Reasons for Choosing the Methodology*

The descriptive-analytical approach was chosen to study the causes of obesity in Qatari society and its impact on the physical and psychological health of women in leadership roles for several key reasons. This methodology allows for collecting extensive and detailed data from a large and representative sample, accurately depicting reality. It enables the researcher to use questionnaires and statistical analysis tools to understand relationships between variables, including dietary habits, physical activity, and genetic, societal, and cultural factors. The descriptive-analytical approach facilitates a thorough understanding of the studied phenomena by describing and analysing them from multiple perspectives. This contributes to developing scientifically based recommendations that can be applied to health policies and awareness programs. The method helps pinpoint existing knowledge gaps and directs research efforts toward addressing them. This supports the development of health programs based on reliable local data that reflect the actual conditions in Qatari society. This methodology strengthens the credibility and accuracy of the findings, ensuring that the conclusions are applicable and contribute to obesity prevention and quality-of-life improvement.

### *Research Population:*

The study's target population comprises Qatari women of different ages, social backgrounds, and economic levels. This group represents a significant segment of Qatari society, where obesity rates are high, necessitating thorough research and analysis to understand its causes and effects.

#### *Reasons for Selecting Qatari Women:*

1. Women in Qatar experience higher obesity rates compared to men, making them a crucial demographic for studying influencing factors and health implications.
2. Obesity is linked to severe health issues, such as heart disease, diabetes, and high blood pressure, which significantly affect women's quality of life.
3. Women with excessive weight gain face psychological issues like depression and low self-esteem, emphasising the importance of studying the causes of obesity and its impact on mental health.
4. Qatari customs and traditions are vital in shaping dietary habits and physical activity levels, directly impacting obesity rates.

#### *Characteristics of the Study Population:*

1. The study includes women from adolescence to old age, providing insights into how obesity affects different life stages.
2. The study includes participants from different economic and social backgrounds, which enables an analysis of how these factors influence obesity rates.
3. The study examines variations in physical activity and dietary habits among Qatari women to assess their impact on obesity.

#### *Study Sample*

A random sample was used in this study. The sample type was chosen so that there is a chance that the sample will accurately represent the community. The choice of a random sample is due to several important reasons. This type of sample allows every Qatari woman an equal opportunity to be part of the study, which increases the likelihood that the results will represent the community as a whole. Using a random sample also helps reduce participant selection bias, enhancing the results' reliability. The results can also be more generalisable to the community as a whole. The sample size was chosen based on statistical criteria that ensure adequate representation of the target community. In this study, data was collected from 200 Qatari women.

The sample size (200 women) was determined based on:

1. A large sample size ensures higher accuracy in the results and reduces the margin of error.
2. A large sample size comprehensively represents the Qatari community's different age groups and backgrounds.
3. A large sample size can support detailed analyses, such as knowing the implications of obesity on different age groups or social classes.

#### *Study size*

The study size includes 200 participants, which is appropriate for achieving a balance between statistical accuracy and the possibility of generalising the results. This size contributes to providing a strong database that helps in understanding the studied phenomena more accurately and enables the researcher to collect

sufficient information to analyse the relationship between the study variables related to obesity, such as eating habits, physical activity, societal and cultural habits, and genetic factors, which helps in providing practical recommendations based on clear scientific foundations.

### *Data Collection Tool*

Sources of study information vary according to the study's purpose and the time available to complete the study. Scientific research tools are "a set of means, methods and techniques that the researcher relies on to obtain the necessary data and information to complete and accomplish the research on a problem" (Sadiq Youssef Mahmoud, 2010). One of the essential sources of collecting information on the subject of the study is the results of previous research and studies and the random sample by distributing a questionnaire that includes study questions that address the study problem and the scientific objective of its research and identifying the causes of obesity and its effects on the physical and psychological health of female leaders.

A questionnaire (field aspect) was used to collect the necessary data to answer the study questions. The questionnaire consisted of three main sections.

### *Descriptive Data Analysis*

This part of the paper focuses on the descriptive analysis of the data collected from the target sample. It aims to provide a comprehensive understanding of the demographic characteristics of the participants and how these characteristics influence the study's outcome. By analysing demographic data such as age, educational level, nationality, and occupation, the study identifies the factors affecting obesity in Qatari society and its impact on the health of female leaders. These data are essential for presenting an accurate and comprehensive picture of the current situation, which supports future health policies to combat obesity and promote public health in Qatar. Tables and graphical representations are used to present the results clearly, facilitating understanding relationships between variables and analysing other trends related to the research topic.

## **Descriptive Data Analysis**

### *Demographic Data Analysis*

Table 1: Demographic Data (Age)

<i>Age Group</i>	<i>Frequency</i>	<i>Per cent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
18 to 24 years	30	13.4%	13.5%	13.5%
25 to 34 years	73	32.6%	32.7%	46.2%
35 to 44 years	87	38.8%	39.0%	85.2%
Above 45 years	33	14.7%	14.8%	100.0 %
<b>Total</b>	<b>223</b>	<b>99.6%</b>	<b>100.0 %</b>	
Missing	1	0.4%		
<b>Total</b>	<b>224</b>	<b>100.0%</b>		

The age group that ranks first in the sample is "35 to 44 years," with 87 participants in this category. This is followed by 73 participants aged 25 to 34, 33 participants above 45, and 30 participants aged 18 to 24. This distribution suggests that middle-aged individuals show greater interest in maintaining their nutritional health.

Table 2: Demographic Data (Educational Level)

<i>Educational Level</i>	<i>Frequency</i>	<i>Per cent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Bachelor's Degree	119	53.1%	53.6%	53.6%
Master's Degree	37	16.5%	16.7%	70.3%
High School	31	13.8%	14.0%	84.2%
Diploma	27	12.1%	12.2%	96.4%
PhD	8	3.6%	3.6%	100.0 %
<b>Total</b>	<b>222</b>	<b>99.1%</b>	<b>100.0 %</b>	
Missing	2	0.9%		
<b>Total</b>	<b>224</b>	<b>100.0%</b>		

The data indicate that the majority of participants have a higher education background. The number of participants with a bachelor's degree is 119, while 37 hold a master's degree. Additionally, 31 participants have a high school education, 27 hold a diploma, and 8 obtained a PhD. This reflects a high level of education among the participants.

Table 3: Demographic Data Analysis (Nationality)

<i>Nationality</i>	<i>Frequency</i>	<i>Per cent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Qatari	164	73.2%	73.9%	73.9%
Arab	53	23.7%	23.9%	97.7%
Foreigner	5	2.2%	2.3%	100.0 %
<b>Total</b>	<b>222</b>	<b>99.1%</b>	<b>100.0 %</b>	
Missing	2	0.9%		
<b>Total</b>	<b>224</b>	<b>100.0%</b>		

The majority of participants are Qatari, with 164 participants being Qatari and 55 being non-Qatari, which enhances the relevance of the results to Qatari society.

Table 4: Demographic Data Analysis (Job Title)

<i>Job Title</i>	<i>Frequency</i>	<i>Per cent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
Administrative Officer	42	18.8%	18.8%	18.8%
Supervisor	32	14.3%	14.3%	33.0%
Researcher	27	12.1%	12.1%	45.1%
Expert	24	10.7%	10.7%	55.8%
Trainer	22	9.8%	9.8%	65.6%
School Principal	15	6.7%	6.7%	72.3%
Head of Department	14	6.3%	6.3%	78.6%
Assistant School Principal	10	4.5%	4.5%	83.0%
Director	6	2.7%	2.7%	85.7%
General Director	6	2.7%	2.7%	88.4%
Deputy General Director	3	1.3%	1.3%	89.7%
Other	23	10.3%	10.3%	100.0 %
<b>Total</b>	<b>224</b>	<b>100.0%</b>	<b>100.0%</b>	

Most of the positions are held by distinguished women who occupy leadership or supervisory roles in various institutions or organisations within Qatar.

## Survey Distribution

Two hundred twenty-four surveys were collected, and 51 questions were answered, divided into several Axes. The authors observed the responses and approval trends of the sample in the first section, which measures the effect of bad eating habits on the speed of obesity onset. The approval rating for this section is 1.6747, indicating a high level of agreement. This suggests that bad eating habits, directly and indirectly, impact obesity in Qatar, highlighting the need to understand the importance of avoiding these harmful habits, as avoiding them will lead to reduced obesity cases in the community.

The authors observed the responses and approval trends of the sample in the second section, which measures the response of the Qatari community to sports to avoid obesity. The approval rating for this section is 1.953, indicating a moderate level of agreement. This shows that sports influence Qatari citizens' lives in terms of maintaining their health.

The authors observed the responses and approval trends of the sample in the third section, which measures the impact of social habits on the speed of obesity onset. The approval rating for this section is 1.746, indicating a high level of agreement. This suggests a clear consensus among the study participants that these social habits contribute to higher obesity rates.

The survey results indicate that participants consider social habits to be a major factor in the prevalence of obesity, with a significant impact on Qatari society. Social habits contribute to the difficulty of Qataris distancing themselves from these habits for their health.

The authors observed the responses and trends of agreement for the sample on the extent of the impact of cultural habits on Qatari society. The total agreement score for this axis is 1.7741, indicating a moderate level of agreement, which suggests a strong influence of these cultural habits on Qatari citizens' lives in maintaining their health. Based on this analysis, it can be concluded that there is widespread support for the idea that cultural factors play an essential role in linking obesity to these habits, signalling the need to avoid them in the future.

The authors observed the responses and trends of agreement for the sample on the sections of Axis 5, which refers to genetic factors and their relationship to obesity. The total agreement score for this axis is 1.6035, indicating a high level of agreement, suggesting that genetic factors impact the speed of obesity development in Qatari society. These factors are considered part of the population affected by the disease, contributing to the overall number of Qatari citizens suffering from obesity.

This part of the paper presents a descriptive analysis of the demographic data of the participants in the study. The age data shows that the age group between 35 and 44 constitutes the most significant percentage of participants (39%), followed by the 25-34 age group (32.7%). This indicates that the middle-aged group is the most engaged in the study, reflecting an increasing awareness of the importance of maintaining physical health at this stage of life. As for the educational level, the analysis shows that the majority of participants hold a Bachelor's degree (53.6%), while those with Master's degrees (16.7%) and doctorate (3.6%) are fewer. This suggests that higher-education participants form the most significant portion of the sample, potentially enhancing the accuracy and reliability of the study's data.

Regarding nationality, 73.9% of the participants are Qatari, which strengthens the relevance of the findings to Qatari society and provides an accurate picture of the current obesity situation and its impact on women in Qatar. Concerning occupation, most participants are in administrative roles (18.8%) and supervisory positions (14.3%), reflecting women's interest in leadership or managerial positions in their physical and mental health.

The data also showed consensus among participants that poor dietary habits and lack of physical activity are the leading causes of obesity, with a large percentage of participants strongly agreeing with these factors. This highlights the importance of awareness in adopting healthy eating habits and promoting physical activity to combat obesity in Qatar.

## Quantitative Data Analysis

This part of the paper discusses the quantitative data analysis using correlation coefficient analyses to understand the relationships between various factors and obesity. This analytical method was chosen due to its ability to determine the strength and direction of relationships between variables, such as the link between unhealthy eating habits and weight gain. Correlation analysis helps identify hidden patterns among the different variables under study, providing a deeper understanding of the factors influencing obesity. This chapter includes tables presenting the correlation coefficients between variables like sports habits, age, education level, community habits, and cultural habits. Results are interpreted based on the extracted statistical values, providing a comprehensive view of how these factors interact with the obesity problem in Qatari society.

Table 5: Pearson Correlation Results between “Sports Habits” and “Age”

<i>Variables</i>	<i>Sports Habits</i>	<i>Age</i>
Sports Habits	1.000	0.869**
Sig. (2-tailed)		< 0.001
N	222	222
Age	0.869**	1.000
Sig. (2-tailed)	< 0.001	
N	222	223

### *Interpretation of Results:*

- The strong correlation between “sports habits” and “age” indicates a significant relationship, meaning that sports habits also increase as age increases, or vice versa.
- The statistical significance value of < 0.001 means the relationship is highly significant, with less than a 0.1% chance that this correlation occurred by chance, reinforcing the reliability of the results.

Table 6: Pearson Correlation Results Between “Education Level,” “Community Habits,” and “Cultural Habits”

<i>Variables</i>	<i>Education Level</i>	<i>Community Habits</i>	<i>Cultural Habits</i>
Education Level	1.000	0.918**	0.923**
Sig. (2-tailed)		< 0.001	< 0.001
N	222	220	219
Community Habits	0.918**	1.000	0.994**
Sig. (2-tailed)	< 0.001		< 0.001
N	220	220	219
Cultural Habits	0.923**	0.994**	1.000
Sig. (2-tailed)	< 0.001	< 0.001	
N	219	219	219



*Interpretation of Results:*

- A correlation of 0.918 between “education level” and “community habits” indicates that higher education is associated with improved community habits.
- Similarly, the correlation of 0.923 between “education level” and “cultural habits” shows a positive relationship between education and cultural habits.
- The correlation of 0.994 between “community habits” and “cultural habits” suggests that improving community habits correlates strongly with improving cultural habits, highlighting the interconnectedness of these factors.

Table 7: Pearson Correlation Results Between “Nationality,” “Occupation,” “Physical Health Variable of Leading Women,” “Mental Health Variable of Leading Women,” and “Age”

<i>Variables</i>	<i>Nationality</i>	<i>Occupation</i>	<i>Physical Health of Leading Women</i>	<i>Mental Health of Leading Women</i>	<i>Age</i>
Nationality	1.000	0.847**	0.812**	0.845**	0.661**
Sig. (2-tailed)		< 0.001	< 0.001	< 0.001	< 0.001
N	222	222	221	222	222
Occupation	0.847**	1.000	0.920**	0.920**	0.906**
Sig. (2-tailed)	< 0.001		< 0.001	< 0.001	< 0.001
N	222	224	221	222	223
Physical Health of Leading Women	0.812**	0.920**	1.000	0.991**	0.793**
Sig. (2-tailed)	< 0.001	< 0.001		< 0.001	< 0.001
N	221	221	221	221	221
Mental Health of Leading Women	0.845**	0.920**	0.991**	1.000	0.789**
Sig. (2-tailed)	< 0.001	< 0.001	< 0.001		< 0.001
N	222	222	221	222	222
Age	0.661**	0.906**	0.793**	0.789**	1.000
Sig. (2-tailed)	< 0.001	< 0.001	< 0.001	< 0.001	
N	222	223	221	222	223

*Interpretation of Results*

- Regarding the relationship between nationality and the physical health variable of female leaders, the correlation coefficient = 0.812, and the statistical significance value = <0.001, which indicates a positive correlation between nationality and the physical health of female leaders.
- Regarding the relationship between nationality and the mental health variable of female leaders, the correlation coefficient = 0.845, and the statistical significance value = <0.001, which indicates a strong positive correlation between nationality and the mental health of female leaders.
- Regarding the relationship between “occupation” and the physical health variable of female leaders, the correlation coefficient = 0.920, and the statistical significance value = <0.001, which indicates a significant positive correlation between occupation type and the physical health of female leaders.

- Regarding the relationship between “occupation” and the mental health variable of female leaders, the correlation coefficient = 0.920, and the statistical significance value = <0.001, which indicates a very strong positive correlation between occupation type and the mental health of female leaders.
- Regarding the relationship between the physical health variable of female leaders and the mental health variable of female leaders, the correlation coefficient = 0.991, and the statistical significance value = <0.001, which indicates a very strong positive correlation between physical and mental health for female leaders.
- Regarding the relationship between the physical health variable of female leaders and age, the correlation coefficient = 0.793, and the statistical significance value = <0.001, which indicates a positive correlation between the physical health of female leaders and age.
- Regarding the relationship between the mental health variable of female leaders and age, the correlation coefficient = 0.789, and the statistical significance value = <0.001, which indicates a strong positive correlation between the mental health of female leaders and age.

**Table 8: Pearson Correlation between “Unhealthy Eating Habits” and “Nationality”**

<i>Variables</i>	<i>Unhealthy Eating Habits</i>	<i>Nationality</i>
Unhealthy Eating Habits	1.000	0.865**
Sig. (2-tailed)		< 0.001
N	220	220
Nationality	0.865**	1.000
Sig. (2-tailed)	< 0.001	
N	220	222

#### *Interpretation of Results:*

- The correlation value of 0.865 between “unhealthy eating habits” and “nationality” indicates a strong relationship, suggesting that nationality is significantly associated with dietary habits.
- The statistical significance (< 0.001) confirms that this relationship is not by chance, supporting the robustness of the findings.

## Regression Analysis

Table 9: Correlation Analysis of the Relationship between Education Level and Incorrect Dietary Habits, Sports Habits, Cultural Habits, and Social Habits

	<i>Education Level</i>	<i>Incorrect Dietary Habits</i>	<i>Sports Habits</i>	<i>Social Habits</i>	<i>Cultural Habits</i>
Pearson Correlation	Education Level	1.000	0.952	0.947	0.916
Incorrect Dietary Habits	0.952	1.000	0.966	0.959	0.969
Sports Habits	0.947	0.966	1.000	0.972	0.979
Social Habits	0.916	0.959	0.972	1.000	0.994
Cultural Habits	0.923	0.969	0.979	0.994	1.000

**Sig. (1-tailed)**

Education Level	Incorrect Dietary Habits	Sports Habits	Social Habits	Cultural Habits
.	<.001	<.001	<.001	<.001
<.001	.	<.001	<.001	<.001
<.001	<.001	.	<.001	<.001
<.001	<.001	<.001	.	<.001
<.001	<.001	<.001	<.001	.

N

Education Level	Incorrect Dietary Habits	Sports Habits	Social Habits	Cultural Habits
219	219	219	219	219

The table shows that education level is strongly correlated with incorrect dietary habits (0.952), sports habits (0.947), social habits (0.916), and cultural habits (0.923). All correlations are statistically significant (Sig. < 0.001).

Table 10: Model Summary of the Relationship between Education Level and Incorrect Dietary Habits, Sports Habits, Cultural Habits, and Social Habits

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.964	0.929	0.927	0.317

a. Predictors: (Constant) Cultural Habits, Incorrect Dietary Habits, Sports Habits, Social Habits

b. Dependent Variable: Education Level

The R Square value is 0.929, indicating that 92.9% of the variance in incorrect dietary habits, sports habits, social habits, and cultural habits can be explained by education level. The adjusted R Square value is 0.927, reinforcing confidence in the model used.

Table 11: ANOVA Analysis of the Relationship Between Education Level and Incorrect Dietary Habits, Sports Habits, Cultural Habits, and Social Habits

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	279.812	4	69.953	694.993	<.001
Residual	21.540	214	0.101		
Total	301.352	218			

a. Dependent Variable: Education Level

b. Predictors: (Constant) Cultural Habits, Incorrect Dietary Habits, Sports Habits, Social Habits

The model shows that education level significantly affects incorrect dietary, sports, social, and cultural habits (F = 694.993, Sig. < 0.001). The total sum of squares for regression is 279.812, which is large compared to the residual sum of squares of 21.540.

Table 12: Coefficients of the Relationship Between Education Level and Incorrect Dietary Habits, Sports Habits, Cultural Habits, and Social Habits

Model	Unstandardised Coefficients	Standardised Coefficients	t	Sig.
	B	Std. Error	Beta	
1	(Constant)	-0.285	0.051	
	Incorrect Dietary Habits	1.052	0.110	0.758

	Sports Habits	0.931	0.118	0.763
	Social Habits	0.303	0.235	0.211
	Cultural Habits	-1.044	0.272	-0.770

a. Dependent Variable: Education Level

The unstandardised coefficients (B) show that education level significantly positively impacts incorrect dietary habits and sports habits, with each increasing by one unit for every unit increase in education level (1.052 for incorrect dietary habits and 0.931 for sports habits). Social habits have no statistically significant effect on education level (Sig. = 0.198). Cultural habits have a negative impact on education level (-1.044, Sig. < 0.001), with statistical significance.

Table 13: Correlation Analysis for the Study Variables

	<i>Age</i>	<i>Genetic Factors</i>	<i>Mental Health of Female Leaders</i>	<i>Physical Health of Female Leader</i>
Pearson Correlation	Age	1.000	0.807	0.798
	Genetic Factors	1.000	0.993	0.987
	Mental Health of Female Leaders	0.798	1.000	0.991
	Physical Health of Female Leader	0.796	0.987	1.000

**Sig. (1-tailed)**

<i>Age</i>	<i>Genetic Factors</i>	<i>Mental Health of Female Leaders</i>	<i>Physical Health of Female Leader</i>
.	<.001	<.001	<.001
<.001	.	<.001	<.001
<.001	<.001	.	<.001
<.001	<.001	<.001	.

**N**

<i>Age</i>	<i>Genetic Factors</i>	<i>Mental Health of Female Leaders</i>	<i>Physical Health of Female Leader</i>
219	219	219	219

The table shows that age strongly correlates with genetic factors (Pearson Correlation = 0.807), indicating a notable positive relationship between genetic factors and age. It also shows a positive relationship between age and the mental health of female leaders (Pearson Correlation = 0.798) and physical health (Pearson Correlation = 0.796). All correlations are statistically significant (Sig. < 0.001), reinforcing confidence in these relationships.

Table 14: Model Summary for Study Variables

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	0.808	0.652	0.647	0.528

a. Predictors: (Constant), Physical Health of Female Leader, Genetic Factors, Mental Health of Female Leader

b. Dependent Variable: Age

The R Square value is 0.652, indicating that genetic factors, mental health, and physical health can explain 65.2% of the variance in age. The adjusted R Square value is 0.647, which confirms that the model corrects for potential biases due to sample size and the number of independent variables. The standard error of estimate is 0.528, providing insight into the spread of actual age values around the predicted values.

Table 15: ANOVA Results for Study Variables

<i>Model</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Regression	112.576	3	37.525	134.386	<.001
Residual	60.036	215	0.279		
Total	172.612	218			

a. Dependent Variable: Age

b. Predictors: (Constant), Physical Health of Female Leader, Genetic Factors, Mental Health of Female Leader

The model shows a significant effect of the independent variables on age (Sum of Squares = 112.576,  $df = 3$ , Mean Square = 37.525,  $F = 134.386$ ,  $Sig. < 0.001$ ). The residual represents the unexplained variance (Sum of Squares = 60.036,  $df = 215$ , Mean Square = 0.279). The total variance is 172.612, indicating that the model explains a large portion of the total variance.

Table 16: Coefficients for Study Variables

<i>Model</i>	<i>Unstandardised Coefficients</i>	<i>Standardised Coefficients</i>	<i>t</i>	<i>Sig.</i>
B	Std. Error	Beta		
1	(Constant)	1.098	0.101	
Genetic Factors	1.125	0.382	1.034	2.941
Psychological Health of the Female Leader	-0.347	0.445	-	-
Physical Health of the Female Leader	0.120	0.386	0.095	0.310
a. Dependent Variable: Age				

#### *Unstandardised Coefficients:*

- Genetic factors have a strong positive impact on age ( $B = 1.125$ , Std. Error = 0.382,  $t = 2.941$ ,  $Sig. = 0.004$ ), meaning that a one-unit increase in genetic factors is associated with a 1.125-unit increase in age.
- The psychological health of the female leader is a variable that has a negative but statistically insignificant effect on age ( $B = -0.347$ , Std. Error = 0.445,  $t = -0.780$ ,  $Sig. = 0.436$ ), which indicates that the impact of this variable on age is not statistically significant.
- The physical health of the female leader has a positive but statistically insignificant effect on age ( $B = 0.120$ , Std. Error = 0.386,  $t = 0.310$ ,  $Sig. = 0.757$ ), meaning that the impact of this variable on age is also not statistically significant.

#### *Standardised Coefficients:*

- Genetic factors show a more significant impact (Beta = 1.034) compared to other variables, indicating that they have the most substantial weight in explaining the variance in age.
- The female leader's psychological and physical health variables have smaller impacts (Beta = -0.324 and Beta = 0.095, respectively).

## Recommendations and Scientific and Administrative Contributions

### Study Results

The results suggest that poor eating habits are one of the main reasons for the high rates of obesity among women in Qatar. Unhealthy eating habits include consuming foods rich in fats and sugars, excessive fast-food intake, and a lack of fruits and vegetables. The data shows a strong correlation between these habits and weight gain, which increases the likelihood of chronic diseases such as diabetes, high blood pressure, and heart disease. Cultural and societal factors play a significant role in the prevalence of obesity among Qatari women. Food-related customs and traditions, such as banquets and social occasions involving large amounts of food, contribute significantly to weight gain.

Additionally, social pressures force women to adapt to these customs, making it difficult to follow a healthy diet. Genetic predisposition is another factor contributing to increased obesity rates. Many women in Qatar are affected by obesity due to genetic factors that make their bodies more prone to fat storage. The study revealed a strong relationship between genetic factors and weight gain, with individuals having a family history of obesity being more likely to develop the condition.

Physical inactivity is another major factor contributing to obesity. Qatari women often suffer from a lack of movement due to a lifestyle dependent on technology and luxury. The results revealed a strong correlation between physical inactivity and weight gain, which exacerbates the obesity problem and increases the risk of chronic diseases. Obesity significantly impacts the physical and mental health of the female leader. The results showed that obesity increases the risk of chronic diseases such as high blood pressure, diabetes, and heart disease. Obesity also negatively affects mental health, increasing depression rates and reducing self-esteem, which in turn impacts overall quality of life.

The study used statistical tools, including correlation coefficients, to understand relationships between different variables and regression analysis. For instance, the data showed a strong correlation between unhealthy eating habits and gender, as well as between exercise habits and age, supporting hypotheses related to the influence of these factors on obesity.

### **Linking Results to Previous Studies**

The study results align with the findings of Asma Nabil (2022), who confirmed the impact of unhealthy eating habits and cultural and societal factors on weight gain, and Suzanne Capillary (2020).

The study by Mukhtar Rehab (2014) examined the influence of social and cultural factors on health and dietary habits, emphasising the community's role in shaping eating habits. The study by Laura Oshes (2017) addressed the influence of media on the portrayal of the ideal body and its effect on women suffering from obesity, which aligns with the current study's findings on the impact of societal pressures.

The study on the psychological suffering of children (2021) confirmed that genetic factors play a significant role in determining eating behaviour and lifestyle, which increases the risk of obesity. The current results support this hypothesis by highlighting the importance of genetic factors in increasing obesity rates.

The study by Rosanberg (2003) emphasised that physical inactivity is a risk factor for physical and mental health. Armstrong's (2009) study addressed the impact of obesity on women's health and stressed the importance of physical activity in combating obesity, consistent with the current study's findings. The study by Debrasso (2018) discussed the relationship between obesity and mental health, confirming that obesity has a negative impact on mental health. The study on the health, physical, and cognitive consequences of obesity in women (2021) supported these results by highlighting the negative effects of obesity on both mental and physical health, aligning with the current study's findings.

### **Contributions of the Study**

This study significantly contributes to providing reliable local data and statistics on the causes of obesity in Qatari society. These data are crucial for understanding the factors influencing weight gain among women in Qatar, which helps create an accurate and comprehensive picture of the health situation among the local



population. These statistics contribute to guiding future health policies and planning necessary awareness programs and health interventions.

The study comprehensively addresses the impact of obesity on Qatari women's physical and psychological health. This includes chronic diseases such as diabetes and high blood pressure, as well as psychological effects such as depression and low self-esteem. This comprehensive understanding helps guide efforts to improve the general health of women in Qatar by adopting healthy lifestyles and sound dietary practices.

The study provides unique contributions by understanding Qatari society's cultural and social context. It addresses the impact of dietary traditions, community habits, and cultural norms on obesity rates. This focus helps us understand how these factors affect the health of Qatari women and leads to the development of appropriate health strategies for our Qatari community.

The study contributes to developing health education programs aimed at raising awareness about the risks of obesity. These programs include increasing women's awareness of the importance of healthy nutrition and physical activity and providing advice and information on adopting a healthy lifestyle. These programs can be effective in reducing obesity rates and improving the overall health of women in Qatar.

These findings assist in improving national health policies. The gathered data and statistics can be used to develop health policies aimed at preventing and treating obesity and improving Qatari women's quality of life. This includes developing strategies for early intervention and clarifying health risk factors associated with obesity.

One of the study's main contributions is uncovering the relationship between unhealthy eating habits and the health of Qatari women. The study showed that unhealthy eating habits, such as consuming foods rich in fats and sugars and not eating enough fruits and vegetables, contribute significantly to increasing obesity rates. This understanding helps direct efforts to educate women on the importance of adopting healthy eating habits.

The study also examined the role of genetics in increasing obesity rates among Qatari women. The results showed a strong correlation between genetic factors and susceptibility to weight gain, which enhances scientific understanding of this factor and helps guide future research on the impact of genetics on obesity.

One of the critical aspects addressed by the study is the role of physical activity in combating obesity. The results revealed that lack of physical activity is a significant factor in weight gain among Qatari women. This understanding emphasises encouraging women to exercise regularly and adopt active lifestyles to prevent obesity.

The results of the study contribute to providing practical and applicable solutions to fight obesity in Qatari society. These solutions include enhancing health awareness, improving access to physical activities, and developing targeted nutrition programs. These solutions help reduce obesity rates and improve the quality of life for women in Qatar.

This study opens the door for further research on the causes and effects of obesity. The findings and collected data can serve as a foundation for future studies focusing on specific aspects of the many obesity-related issues, such as psychological and social effects, and developing new strategies for intervention and treatment.

### **Study Limitations:**

Although the sample size used in the study (200 women) is sufficient to achieve a balance between statistical accuracy and the ability to generalise the results, this number may not be enough to cover all social groups in society. This leads to limited results and bias toward specific segments of society, affecting the ability to generalise the results on a broader scale. The study heavily relied on questionnaires distributed to women in Qatari society. While questionnaires are an effective data collection tool, relying on self-reports may lead

to information bias due to varying levels of awareness among participants or some participants' desire to present a positive image of themselves. This can affect the accuracy of the data collected. Social and cultural norms are significant limitations that may affect the study's results. Dietary and social traditions in Qatar may lead to substantial variations in behaviours and practices across different regions and social groups. The collected data may not accurately reflect the impact of these factors on obesity rates and women's health nationwide.

### **Direction for Future Studies:**

Future studies should focus on understanding the relationship between psychological factors and obesity. These studies should include aspects such as the effect of stress and depression on weight gain and how social support influences weight loss outcomes. Such studies may help develop psychological and social support programs for women suffering from obesity. Future studies should address more extensive and diverse samples covering different geographical areas and social and economic groups. This will provide a broader understanding of the obesity problem and may reveal potential disparities in obesity rates and their causes among different segments of Qatari society. In addition to quantitative methods, future studies can benefit from using qualitative methodologies such as in-depth interviews and focus groups. These methodologies can provide deeper insights into individuals' experiences with obesity and uncover hidden factors that may not appear in quantitative surveys.

Future studies should focus on evaluating the effectiveness of various health interventions, such as nutrition programs, exercise, and psychological interventions. These studies may include randomised controlled trials to identify the most effective strategies for reducing obesity rates among women in Qatar. Future studies need to examine the long-term effects of obesity on the physical and psychological health of women. These studies should include continuous follow-up of women suffering from obesity to understand the long-term health impacts and the economic costs associated with it. Future studies can contribute to a deeper understanding of the genetic factors in increasing obesity rates. These studies should include genetic analysis to identify obesity-related genes and how they impact weight and overall health.

With the increasing use of technological conveniences in our daily lives, efforts should intensify to study the impact of technology, such as fitness apps, activity trackers, and digital nutrition programs, on obesity rates and how they can be used to support physical and mental health. Future studies should focus on understanding the impact of the food environment, such as the availability of healthy foods and the effects of nutrition policies in schools and public places on obesity rates. These studies can help develop more effective nutrition policies.

### **Recommendations:**

- Promote health awareness programs targeting Qatari women to educate them about proper eating habits and the importance of choosing healthy foods.
- Encourage women to exercise regularly by establishing women-only sports facilities and providing exercise programs for women of all ages.
- Provide psychological support for women suffering from obesity through psychological and social support programs and educate them on how to address the mental health issues caused by obesity-related diseases.
- Offer specific health guidance for women with a genetic predisposition to obesity, including strategies for prevention and weight management.
- Raise awareness about the risks of obesity and associated diseases, such as high blood pressure, diabetes, and heart disease.

- Encourage Qatari society to organise healthy social gatherings and events, offering healthy food options instead of foods rich in fats and sugars.
- Promote a community environment that supports healthy activities and reduces unhealthy eating habits.
- Encourage women to prepare meals at home to ensure the preparation of healthy and appropriate meals.
- Support scientific research related to obesity and women's health to develop effective strategies for prevention and treatment.
- Enhance government policies aimed at combating obesity through improving public health infrastructure and providing necessary support for women.

## Conclusions

Obesity is one of the most significant health challenges facing women in Qatari society, contributing to increased rates of chronic diseases and their negative effects on both physical and psychological health. The study shows that poor dietary habits, community traditions and culture, lack of physical activity, and genetic factors play a significant role in the spread of obesity among Qatari women. Additionally, the risk of obesity has a significant impact on women's mental health, leading to increased rates of depression and decreased self-esteem.

This study has provided practical recommendations to improve the health status of Qatari women by enhancing nutrition awareness physical activity, providing effective psychological support, and developing health policies. Addressing the obesity problem requires the collective efforts of all members of society, starting from families to government entities, to create a healthy environment that supports women and enables them to maintain their physical and mental health consistently and systematically. These recommendations are not just theoretical steps but a call for serious and ongoing work to improve the quality of life in Qatari society. A healthy and strong woman is the foundation for building strong generations capable of giving and contributing. Therefore, we must all work together to empower Qatari women to combat obesity challenges and maintain their health and happiness.

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