

## Dietary Patterns and Their Impact on Public Health: A Case Study of Multan, Pakistan

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### ABSTRACT

The health field concept states that lifestyle is the most significant element influencing health. The complex process of ageing is influenced by a variety of factors that determine whether a person may develop age-related chronic diseases in their later years. These variables encompass various behavioural, environmental, and dietary factors. A healthy diet is crucial for maintaining overall well-being. One of the primary objectives of this research was to assess people's understanding of dietary patterns. "Nutritional pattern and its impacts upon the health of citizens" was the focus of the current quantitative investigation. The current study was conducted in the city of Multan, Pakistan. The study also examines the connection between fast food and its effects on citizens' health. The sample size consisted of 200 respondents, who were selected using basic random sampling techniques. A questionnaire was employed as a data collection instrument. As a result, statistical methods were used to gather, analyse, and interpret the data. The purpose of the current study was to investigate attitudes, practices, and knowledge related to dietary patterns. The main conclusion is that while fast food has adverse health effects, most respondents believe that healthy eating is a key factor in achieving longevity. Some respondents said that overeating was the cause of their illnesses. Many people believe that a balanced diet is an easy way to maintain good health, while it also plays a vital role in the better health of pregnant and lactating women. The study recommended that consumers avoid fast food and overeating and instead follow a balanced diet.

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## 1. Introduction

The eating pattern that we employ is a design for nutrition that is consumed by a population or by a specific person. While factors such as geology, atmosphere, food accessibility, culture, and religion have limited effects on people's eating habits, other factors, including a person's financial situation, personal enjoyment, and health concerns, have a greater influence on the weight-control strategies individuals develop (Popkin et al., 1999).

Within Western populations, the term 'diet' is commonly used to refer to patterns of food consumption followed for health reasons or ethical or religious reasons. A good diet is of profound importance for the maintenance of good health; nutritional lack

severe enough to cause obvious diseases such as scurvy and pellagra are now very rare in Western societies, but diet is a major determinant of the risk for developing many of the commonest fatal diseases, including ischemic heart disease, stroke, and cancers of the large bowel and stomach.

The word "eating regimen" comes from the Greek word "*diaita*," which was used in the past to refer to a man's whole way of life. These days, the term "eating regimen" is typically limited to a person's eating and drinking habits, including their eating style, the types and quantities of food they consume, and the frequency of their meals. For many people, the term connotes an approved payment or food selection for a certain cause (Kalimbira & Chipwatali, 2007). In this regard, maintaining a regular eating schedule can help manage weight. The eating plan designed to regulate weight can be used to limit weight gain, maintain a healthy weight, or promote weight gain (Baron et al., 2007). However, a sizable segment of the public views diets as restrictive and focused on weight loss. Approximately 15 million people in the UK follow some form of calorie-counting weight-loss regimen. These eating practices are not very effective. According to an athletic nutritionist, 95% of people who follow a strict diet plan to lose weight regain the weight they lost within a year, and they consistently gain more fat than muscle (Chipwatali, 2007).

As stated by Turin et al. (2007), nutritional status specifically affects the growth of youngsters in terms of both physical and mental development. In urban shantytowns, poor children often fall behind the essential measure of nutrition and sustenance, which is likely to hinder their proper development (Kant, 2004). This examination was initiated to investigate the dietary intake pattern among urban ghetto-dwelling children attending schools in Dhaka city and to examine the relationship with other social factors (Khan, 1989). Examples of sustenance supply inside the family might contribute to poor pay health in specific individuals. Issues related to sustenance and child well-being, particularly nutritional concerns, have been recognised as common and vital indicators of overall well-being in Bangladesh. The present examination has focused on the dietary habits of schoolchildren in the urban ghetto areas of Bangladesh. These children constitute the most distressed gathering in the nation (Saini et al., 2009). All food consumption in both rural and urban Bangladesh has shown differences in food utilisation between young men and young women, which is attributed to a male bias in the intra-family allocation of food and social security (Wirfält & Jeffery, 1997).

According to Lee et al. (2002), for male children, higher maternal instruction was significantly associated with more nutritious eating habits at home. More prominent family capitals and families, in which schedules were crucial, obviously increased the probability that young men had additional items (Burney & Khan, 1991). Drinking sweetened iced tea is a social decision for the majority of the South, particularly among male youngsters. In contrast, drinking tea was associated with discerning results, such as vocabulary comprehension, word recognition, and quantitative reasoning. Physical capacity was likewise created between tea consumers (Schulze et al, 2006). Tea served as a beneficial drink for both intellectual and physical development in male children.

### *1.2. Dietary pattern in Pakistan*

A population's eating habits are referred to as its diet. Numerous factors influence population diets, such as location, climate, food availability, religion, and culture. Individuals' dietary patterns are influenced by socioeconomic considerations, status, personal preferences, health concerns, and other elements within a nation (Perveen et al, 2010). Diets must have the necessary amounts of vitamins, proteins, and energy to

ensure excellent health (Oxford Dictionary). Daily eating behaviours typically translate into daily food intake throughout suitable meals, between meals, or during any specific eating event (Habib et al., 2013).

Food is the most important need for the impoverished, requiring all of their time and money. While people in wealthy nations spend more on services and non-food items, those in poorer nations allocate a substantial percentage of their available budget to food (Lamri-Senhadj et al., 2009). In the United States, Canada, and the Netherlands, for instance, people spend 10.4%, 13.7%, and 14.4% of their income on food, respectively. In contrast, in less developed nations such as Sudan, India, and the Philippines, food items account for more than 50% of household budgets (Newby et al., 2003). Over three-fourths of the world's population lives in rural areas, and a sizable portion of them are impoverished. In the least developed nations, 40% of rural residents live in absolute poverty (IBRD, 1981).

The Holy Month of Ramadan is the ninth month in the Islamic calendar, and in Islam, it is considered important to fast. This month proceeds to the 29th or 30th. In this heavenly month, Muslims go without smoking, drinking, eating and sex amid their fast and are tremendously longed for to educate other individuals about GOD dutifulness, most profound sense of being, humility and resilience (Khan, 1999). The fast starts from dawn and ends with sunset, coinciding with the *Mugrib* Namaz. For non-Muslim persons, it is important during Ramadan that he would not eat or drink anything in front of any fasting Muslim. In this holy month of fasting, Muslims make a variety of dishes for the evening meals, which is known as *Iftar*. The Whole family gathers at one place to break their fast with the best cooked meal at the time of *iftar*. At the end of Holy Ramadan, the festival occurred that is known as *Eid-ul-Fitr*. This is the festival of fast breaking and is a very energetic Islamic celebration event. On this beautiful event, Muslims must make sweets in their cuisine and go with their family members for fun and enjoyment, and also go to visit their relatives and friends (Esteghamati et al, 2011).

Khan (1999) investigated household spending on food consumption in Pakistan's Charsadda area. According to his research, the typical household spent Rs. 6278.00 on food items each month. This comprised 16.7 per cent of family costs for flour, 15.9 per cent for meat, 13.8 per cent for milk, 13.2 per cent for fruit, 10.1 per cent for edible oils, 9.7 per cent for vegetables, and 6.4 per cent for pulses. He found that the amount consumed and the overall household income were correlated with the amount spent on flour, meat, milk, edible oils, vegetables, and fruit. Approximately two-thirds of Pakistan's population still resides in rural regions and faces several challenges in meeting their basic daily food needs, especially in Southern Punjab (Messina et al., 2001).

People in Pakistan are very interested in food and their cooking, which often features a lot of chillies and oil. Most often, beef and chicken are used in Pakistani dishes. Usually, almost constantly, they make "Chapattis" that are also known as "Roti" with flour to eat. They also used a variety of vegetables and curries, but mostly with meat in their dishes. Another ingredient they use frequently in their cooking is yoghurt (Habib et al., 2017). People in Pakistan often go out with their best friends or families in the evening to try new Cafes and restaurants. They are keenly interested in to drinking tea, coffee and milk there. All the Pakistani and Western foods are cooked in their restaurants and cafes. High tea is a popular evening treat enjoyed by the whole family. High tea typically consists of French fries, pakoras, samosas, chicken rolls, patties, pastries, and a variety of other dishes (Pakistan, 1989).

### *1.3 Significance of the study*

As Pakistan is a developing nation, the majority of its population resides in rural areas. In rural regions, people often lack proper knowledge about healthcare and diet plans, which can lead to a lack of concern for their health. Previously, no research had been conducted on this topic in the selected area. This research will provide them with proper knowledge and awareness regarding dietary patterns and their impact on health. People are suffering badly from disease and malnutrition. The average age is 55 (WHO); people often lack proper knowledge about a balanced diet. Through this research, people in Pakistan will learn that they can maintain their health by adopting a balanced diet and how to improve their health after recovering from a chronic disease. People will come to understand the benefits of incorporating a balanced diet into their daily life, and they will also recognise the advantages of adopting a balanced diet. The study will ensure a balanced diet, and people will understand that they can cure themselves of disease and meet their nutritional deficiencies by adopting a balanced diet. Because most diseases are only prevented by a basic diet, and people lack proper understanding of a balanced diet and its usage.

### *1.4 Objective of the study*

In this research, our objective was to “assess public awareness of dietary patterns and evaluate their impact on health outcomes.

### *1.5 The Impact of a Diet Plan on Health*

As shown by Patrick Helford of the Organisation of Optimum Nutrition, a man contains around 63% water, 22% protein, 13% fat, and 2% minerals and vitamins (Esmailzadeh & Azadbakht, 2008). The atoms that your body needs are conveyed by the sustenance you eat, and you'll eat around hundred tons of nourishment in all your years, or three thousand and eight hundred calories according to day, Physical well-being is influenced by eat less carbs design in such a large number of courses, with the most clear being stoutness (Clare et al, 2011).

## **2. Methodology**

The Present research was directed on "Dietary example and its effects upon the soundness of the resident in Multan, Pakistan. To study the association between various quantitative variables, standard data analysis techniques from quantitative research were applied. The study was based on primary data sources. The study focused city was Multan (Punjab), Pakistan. A questionnaire was developed for the factors, socioeconomic conditions, and the role of **“Dietary Patterns and Their Impact on Public Health: A Case Study of Multan, Pakistan”**.

### *2.1. Sampling Technique and Analysis*

The researcher utilised a straightforward random sampling system in the present research. A sample of 200 respondents was selected with the assistance of a straightforward, random sampling procedure, aiming to gather information from the entire universe of respondents. After assembling the data, it was analysed using PC programming (SPSS) – Statistical Package for the Social Sciences. Cross-arrangement was also used to examine the relationships between different elements. The chi-square test was used to examine the association between the variables.

## 2.2. Percentage

Keeping in mind the end goal to portray the fundamental attributes of the example, the factual device of the straightforward rate was utilised with a specific focus on the improvement of the quantitative qualities into numeric ones. The accompanying recipe would be utilised to figure out rates.

Where

$$P = F/N \times 100$$

F = Frequency

N = total number of frequencies

## 2.3 Chi-Square test

To determine the association between certain independent and dependent variables, the standard Chi-square test was applied. The mentioned formula was used to find out the chi-square test values:

$$\chi^2 = \sum (f_o - f_e)^2 / f_e$$

Where

O = Observed

E = Expected value

S = sum of value

## 3. Results and Discussion

The general information of the sample includes age, education, and dietary habits, such as a balanced diet, calories, meals, and fast food. Table No. 1 displays the frequency distribution of the respondents' ages.

Table 1. Percentage distribution with respect to age

Age Categories	Frequency	Percent
10 to 20	20	10.0
21 to 30	109	54.5
31 to 40	48	24.0
Above	23	11.5
Total	200	100.0

Source: Field Survey data, 2025

Table 1 demonstrates that 10% of respondents' ages fall between 10 and 12, 54.5% of respondents' ages fall between 21 and 30, 24.0% of respondents' ages fall between 31 and 40, while 11.5% of respondents' ages exceed 40. The majority of respondents, at 54.5%, are between 21 and 30 years old. Respondents stated that illness emerges due to overeating.

Table 2. Percentage distribution with respect to, do you know about balance diet?

Categories	Frequency	Percent
Yes	177	88.5
No	23	11.5

Total	200	100.0
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Source: Field Survey data, 2025

Table 2 demonstrates that 88.5% of respondents indicated that they think about adjusting their calorie count, while 11.5% of respondents stated that they don't think about adjusting their diet. The majority of respondents, at 88.5%, think about adjusting their diet to eat less carbs.

Table 3. Percentage distribution with respect to, do you know about calories?

Categories	Frequency	Percent
Yes	177	88.5
No	23	11.5
Total	200	100.0

Source: Field Survey data, 2025

Table 03 shows that 88.5% of respondents reported knowing about calories, while 11.5% indicated that they do not think about calories. The majority of respondents, 88.5%, think about calories.

Table 4. Percentage distributions with respect to are you conscious about your diet?

Categories	Frequency	Percent
Yes	151	75.5
No	49	24.5
Total	200	100

Source: Field Survey data, 2025

Table 4 clarifies that 75.5% of respondents reported being aware of their eating routine, while 24.5% reported being unaware of their eating routine. The vast majority of respondents (75.5%) reported being aware of their eating habits.

Table 5. Percentage distributions regarding whether you are aware of the fatigue?

Categories	Frequency	Percent
Yes	140	70
No	60	30
Total	200	100

Source: Field Survey data, 2025

Table 5 indicates that 70% of respondents report thinking about exhaustion, while 30% report not thinking about weakness. The majority of respondents, 70%, indicated that they consider the weakness.

Table 6. The percentage distribution with respect to fatigue is the cause of overeating

Categories	Frequency	Percent
Yes	80	40.0
No	120	60.0

Total	200	100.0
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Source: Field Survey data, 2025

Table number 06 demonstrates that 40% of respondents believe weakness is the reason for overeating, while 60% of respondents responded that fatigue is not the cause of overeating. The bulk of the respondents, 60%, responded that fatigue is not the cause of overeating.

Table 7. Percentage distributions concerning a smaller number of meals are the cause of fatigue

Categories	Frequency	Percent
Yes	141	70.5
No	59	29.5
Total	200	100

Source: Field Survey data, 2025

Table 7 indicates that 70.5% of respondents reported that a smaller meal is the reason for fatigue, while 29.5% of respondents stated that a smaller meal is not the reason for fatigue. 70.5% of respondents responded that a smaller number of meals is the reason for fatigue.

Table 8. Percentage distributions concerning whether you take exercise after the meal

Categories	Frequency	Percent
Yes	130	65
No	70	35
Total	200	100

Source: Field Survey data, 2025

Table 8 shows that 65% of respondents reported exercising after meals, while 35% reported not exercising after meals. Sixty-five per cent of respondents reported exercising after meals.

Table 9. Percentage distributions concerning whether you feel fatigued after the exercise

Categories	Frequency	Percent
Yes	92	46
No	108	54
Total	200	100

Source: Field Survey data, 2025

Table 9 shows that 46% of respondents reported feeling fatigued after the exercise, while 54% of respondents reported not feeling fatigued after the exercise. Fifty-four per cent of respondents reported that they do not feel fatigued after exercise.

### 3.1. Testing of the Hypothesis

Hypothesis:

There is a relationship between fast food and its effects on the strength of subjects.



Null hypothesis:

There is no relationship between fast food and its effects on the strength of subjects.

Alternate hypothesis:

There is a relationship between fast food and its effects on the strength of subjects.

Table 10. Do you like fast food? Fast Food impacts on health: Cross tabulation

Do you like fast food	Fast food impacts on health		Total
	Yes	No	
Yes	61	45	106
No	40	54	94
Total	101	99	200

Source: Field Survey data, 2025

### 3.1.1 Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.481*	1	.034		

\*significant at 5 per cent level

Table 10 illustrates the relationship between fast food consumption and its impact on the well-being of nationals. The mined outcomes demonstrate critical outcomes. Therefore, the other speculation articulation might be assumed as evident, and it is chosen that the general population utilise fast food; that is why fast food has an impact on the well-being of natives.

## 4. Conclusion

Many people lack basic health information. However, few people know how to have optimal health. Nowadays, when human beings are too busy to make ends meet, there is a great need to make them realise that health is one of the greatest assets they have in life.

Modern civilisation has made our lives complex. All things need energy to grow and to be completed. Regular life nourishment does not fulfil the essential nutritional needs of our body. There is always a superior way and an even better answer for every issue that comes into our lives. Equalisation of eating routine arrangement gives us an approach to avoid the terrible well-being issues in early age; we would be wise to eat well, yet now the circumstance is entirely different. Dietary patterns are beneficial today to accomplish ideal health. Therefore, the investigation suggested that there is a relationship between fast food and its effects on the strength of national populations.

## 5. Suggestions

- People tend to avoid diets that have a negative impact on their health.
- People must exercise after a meal.



- Public seminars should be conducted to enhance awareness about health and the importance of dietary patterns.
- Doctors also need to raise awareness of dietary patterns so that they can help their patients.
- People should be conscious of their diet plan.

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