



# Consumer's Health Consciousness, Behavior, Knowledge, Attitude and Practices towards Dietary Habits among Young Adults of Karachi

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## Abstract

**Background:** Healthy dietary practices established early in life can reduce the risk of being overweight, obese, and developing non-communicable diseases (NCDs) later. This study aimed to explore health-conscious behavior, knowledge, attitudes, and practices towards dietary habits among young adults in Karachi.

**Methodology:** A survey was conducted using SurveyMonkey among 300 undergraduate students from various fields, including medicine, engineering, and commerce, at a college in Karachi. Of the 300 contacted, 244 responded, resulting in an 81% response rate. Data analysis was performed using SPSS v26.

**Results:** The study involved 200 young adults aged 18 to 24, with 59% females and 41% males. Half of the respondents attributed serious health issues to poor diets. Nearly 60% favored a balanced diet with moderate sugar and low fat/salt intake, and 60% perceived dairy as healthy. Dietary choices were primarily influenced by parents (30%), the internet/social media (45%), and traditional media (19%), with approximately 37% being health conscious.

**Conclusion:** The findings highlight dietary perceptions, influences, practices, and health consciousness among young adults, emphasizing misconceptions, varied influences, and challenges in adopting healthier habits.

**Keywords:** Health Consciousness; dietary knowledge; dietary attitude; dietary practices

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## Introduction

Adolescent development is impacted by nutrition in ways other than just musculoskeletal growth, such as immunological function, cardiorespiratory fitness, and neurodevelopment. The growth and nutrition of female adolescents remain at risk due to high rates of early adolescent pregnancy in many countries, which has long-term effects on future generations. Making decisions to undertake health-conscious behavior is heavily influenced by perceived knowledge, attitudes, and dietary patterns as well as health-conscious activity itself (1-3). Dietary trends have changed due to increased production of processed foods, rapid urbanization, and changing lifestyles. These days, a lot of people don't eat enough fruit, vegetables, or other dietary fiber-rich foods like whole grains. Instead, they eat more meals high in fats, sugars that are processed having high salt, and potassium. A greater range of foods, grocery goods, and prepared foods are now available as a result of economic development. Attitudes about eating are significantly influenced by food safety concerns (4).

Children's obesity and overweight rates have been rising more quickly than those of adults (5), which indicates that the time has come to

investigate adolescents' perspectives on knowledge, attitudes, and behaviors as well as their level of health consciousness. Young adults (YAs) are becoming more overweight and obese, and this weight trajectory is supported by health behaviors that may be changed, like eating poorly and not exercising (6). Excessive fat buildup carries serious health consequences, including a higher risk of chronic illness and financial strain on the healthcare system (7). More young adults could relate to immediate, concrete, and frequently gender-specific benefits like improved physical appearance and activity levels than to long-term health advantages (7, 8). In general, the obesity and overweight that are currently plaguing young consumers are expected to persist until maturity. It might result in a number of health issues. A nutritious diet helps ward against non-communicable diseases (NCDs), which include diabetes, heart disease, stroke, and cancer, as well as malnutrition in all its manifestations (9).

The 2018 National Nutrition Survey of Pakistan unequivocally demonstrates that overweight and undernutrition affect adults and adolescents equally. 10.2% of boys and 11.4% of girls were overweight, whereas 5.5% of girls and 7.7% of males between the ages of 10 and 19 were obese. 37.8% of people were

reported to be overweight or obese. Urban/rural disparities are evident: women in urban areas are more likely to be overweight or obese, whereas women in rural regions are more likely to be malnourished (10,11). According to estimations of global health conditions, Pakistan is ranked eighth among the nations that are home to the majority of the world's obese people (12-15).

Although the younger generation is becoming more conscious of health issues, we still need to learn about their attitudes, practices, and understanding around eating habits. Many studies have been conducted in this field because eating a good diet is crucial to one's general health. Eating behaviors and nutrition awareness are closely related. The self-conscious person knows that consuming a healthy diet is necessary for maximum growth. This affects a wide range of diseases, such as type 2 diabetes, hypertension, arteriosclerosis, and deficiencies in certain micronutrients including vitamin A, D, iron, and folate. The literature on the impact of health consciousness on young consumers' knowledge, attitudes, and practices regarding their food habits is somewhat limited. Knowing their consciousness and perception is crucial to determining whether or not they are headed in the right direction. It's critical to understand how they view their illnesses and how it affects their general health. Very little study has been done on how meal choices are influenced by nutritional awareness. We need sufficient information to develop a strategic intervention that will effectively reduce adolescent obesity. The primary aim of this research is to investigate the health consciousness, knowledge, attitudes, and practices of adolescents in Karachi about dietary habits. Additionally, the study aims to construct a profile of these consumers with respect to demographic and psychographic characteristics.

## Methodology

The study, which used a cross-sectional explanatory design and was carried out in Karachi from August 2021 to December 2021, focused on the food habits and health consciousness of college and university attendees who were between the ages of 18 and 24. Data was collected using non-probability convenience sampling using an online survey platform (survey monkey), contacting 300 people over the course of two months. Of those, 200 (81% of the total) responded to the survey. The investigation was conducted with strict adherence to ethical considerations. Scales by Oli et al., and Gould were incorporated in the questionnaire, which was created following a thorough literature search, to measure health consciousness and knowledge, attitude, and practices (KAP) related to nutrition (16, 17). Data was gathered using the convenience sampling technique. Nine items were used to gauge how health-conscious consumers were: self-monitoring, overall attentiveness, engagement, and self-consciousness. The scale was taken from Gould et al.'s work (16).

Variables that gauged consumers' eating patterns in relation to KAP were recommended. Three important factors—knowledge, attitude, and practices—that influence consumers' health consciousness. The perceived health threat scale was adapted from the writings of a five-point Likert scale, with 1 denoting strongly disagree and 5 denoting strongly agree, was used to record responses for each item. The participants' age, gender, socioeconomic status, and place of residence were all gathered as

demographic data. SPSS-26 was used to enter and evaluate the data. For quantitative data, mean and standard deviation were computed. For the qualitative data, proportion and frequency were computed.

## Results

200 young adults between the ages of 18 and 24 participated in the study; 118 of them were female (59%) and 82 were male (41%). 39% of the population was in the 21–22 age group, 33.5% in the 23–24 age range, and 27.5% in the 18–20 age range. 52.5% of family structures were made up of blended families, while 47.5% were made up of nuclear families.

Regarding dietary beliefs, there was general agreement that fruits and salads were inherently healthful foods. There is a knowledge gap, too, since 40% of respondents thought things like deep-fried veggies, sausage, and sweets were neutral. Interestingly, 15% of respondents thought that items that are typically unhealthy, including chips and desserts, were healthy, indicating a need for educational interventions. It's alarming to note that 50% of respondents linked bad diets to major health problems like diabetes and heart disease, underscoring the dangers of ignoring good eating practices. A significant percentage acknowledged the additives, high sugar level, and lack of nutritious value in junk food. Surprisingly, 50% of respondents ignored the nutritional value in favor of taste and food accessibility. A comprehensive frequency distribution of inquiries concerning consumers' comprehension of diets is shown in Table 1.

Based on the replies of around 150 participants, family dinners at home were shown to be an important time to eat healthier foods. About 60% preferred a diet that was balanced, low in fat and/or salt, and moderate in sugar. Opinions on dairy were split, with 60% believing it to be healthful. According to the study, parents and social media/the internet are the main sources of influence over dietary decisions—45% of decisions are influenced by information found online. Remarkably, just 19% recognized the power of traditional media. Making healthier dietary choices could be influenced by 20% to 70% of people who consult health professionals such as dietitians, physicians, or nurses. But only 40% said that their inability to cook prevented them from implementing better habits, with 48% blaming their hectic schedules. Table 2 displays a detailed frequency distribution of questions about customers' attitudes toward diet.

About 45% of unhealthy eating choices were greatly affected by outside variables including media campaigns and eye-catching ads. A significant portion of the population ate out once a week (18%) or once a month (44%) according to dining out trends, which may have an effect on family and individual health. The prevalence of packaged/frozen foods (50%) and sweetened beverages (30%) in households may indicate that less healthful options are easier to obtain. Moreover, more than 60% of people ate their meals while watching TV, which may have an effect on mindful eating habits. Table 3 presents a detailed frequency distribution of questions on customers' diet patterns. According to Table 4, the survey found that although 37% of respondents were health-conscious, most did not know how to effectively monitor and respond to changes in their health.

**Table1. Knowledge of Consumer towards Diet**

Knowledge of Consumer towards Diet	Frequency (Percentage)				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>Healthy dietary habits</b>					
Consuming large quantity of food	18 (9)	13 (6.5)	0 (0)	91 (45.5)	78 (39)
Consuming large variety of food	87 (43.5)	44 (22)	36 (18)	23 (11.5)	10 (5)
Eating hygienic food	48 (24)	70 (35)	13 (6.5)	69 (34.5)	0 (0)
Eating main meals regularly and not snacking in between	29 (14.5)	75 (37.5)	40 (20)	36 (18)	20 (10)
Less sugar/sugary foods	10 (5)	28 (14)	46 (23)	13 (6.5)	103 (51.5)
Lot of vegetables/fresh fruits/fresh juices.	0 (0)	28 (14)	74 (37)	0 (0)	98 (49)
Eating smaller portions	0 (0)	29 (14.5)	83 (41.5)	38 (19)	50 (25)
Using less fat in cooking	12 (6)	26 (13)	28 (14)	31 (15.5)	103 (51.5)
<b>Healthy food</b>					
Salad	10 (5)	10 (5)	11 (5.5)	77 (38.5)	92 (46)
All food which is available	50 (25)	65 (32.5)	60 (30)	13 (6.5)	12 (6)
Deep fried vegetables	69 (34.5)	62 (31)	42 (21)	27 (13.5)	0 (0)
Sausage, hamburgers, pizza	67 (33.5)	68 (34)	42 (21)	23 (11.5)	0 (0)
Sweetened soft drinks	134 (67)	43 (21.5)	0 (0)	23 (11.5)	0 (0)
Fruits	1 (0.5)	0 (0)	0 (0)	69 (34.5)	130 (65)
Bakery products such as doughnut, pastries, cookies	47 (23.5)	60 (30)	68 (34)	25 (12.5)	0 (0)
Jam, desserts, traditional sweets	47 (23.5)	34 (17)	78 (39)	25 (12.5)	16 (8)
Chips	81 (40.5)	34 (17)	79 (39.5)	25 (12.5)	15 (7.5)
Rice, vegetables, dal	17 (8.5)	0 (0)	57 (28.5)	90 (45)	36 (18)
Nimko	48 (24)	46 (23)	68 (34)	23 (11.5)	15 (7.5)
Roti	21 (10.5)	0 (0)	0 (0)	56 (28)	123 (61.5)
Beans	10 (5)	0 (0)	10 (5)	78 (39)	102 (51)
<b>Conditions associated with unhealthy diet</b>					
Bad teeth	49 (24.5)	0 (0)	22 (11)	90 (45)	39 (19.5)
Injuries	27 (13.5)	61 (30.5)	35 (17.5)	55 (27.5)	22 (11)
Diabetes	42 (21)	0 (0)	30 (15)	72 (36)	56 (28)
Heart diseases	42 (21)	37 (18.5)	13 (6.5)	68 (34)	60 (30)
High blood pressure	59 (29.5)	0 (0)	13 (6.5)	45 (22.5)	83 (41.5)
Rabies	88 (44)	37 (18.5)	56 (28)	19 (9.5)	0 (0)
Malaria	88 (44)	49 (24.5)	35 (17.5)	12 (6)	16 (8)
HIV/AIDS	100 (50)	49 (24.5)	23 (11.5)	27 (13.5)	1 (0.5)
Cancer	68 (34)	29 (14.5)	33 (16.5)	60 (30)	10 (5)
Obesity	48 (24)	17 (8.5)	35 (17.5)	21 (10.5)	79 (39.5)
<b>Junk food is defined as</b>					
One purchased from a fast-food outlet	29 (14.5)	23 (11.5)	52 (26)	69 (34.5)	27 (13.5)
Junk foods are lacking in protein, vitamin, and fiber	40 (20)	52 (26)	11 (5.5)	20 (10)	77 (38.5)
It contains high level of refined sugars, white flours, trans fats and food additives	44 (22)	0 (0)	1 (0.5)	60 (30)	95 (47.5)
Those which are high caloric value and low nutritional value	32 (16)	13 (6.5)	21 (10.5)	50 (25)	84 (42)
Those which are easy to consume	27 (13.5)	35 (17.5)	50 (25)	65 (32.5)	23 (11.5)
Family consumption healthy food at home	0 (0)	0 (0)	53 (26.5)	92 (46)	55 (27.5)
Healthy diet should contain					
Moderate salt and sugar	0 (0)	15 (7.5)	80 (40)	43 (21.5)	62 (31)
Low salt and sugar	10 (5)	12 (6)	65 (32.5)	60 (30)	53 (26.5)
High fiber foods	0 (0)	15 (7.5)	27 (13.5)	68 (34)	90 (45)
Fruits and vegetables	0 (0)	0 (0)	0 (0)	59 (29.5)	141 (70.5)
Moderate fat	0 (0)	43 (21.5)	99 (49.5)	37 (18.5)	21 (10.5)
Low fat	20 (10)	12 (6)	39 (19.5)	68 (34)	61 (30.5)
Dairy products	0 (0)	0 (0)	60 (30)	68 (34)	72 (36)
<b>Physical activity effect on health</b>					
Maintain weight	0 (0)	1 (0.5)	11 (5.5)	109 (54.5)	79 (39.5)
Deteriorate our physical health	1 (0.5)	0 (0)	0 (0)	75 (37.5)	124 (62)
Improve mental health	1 (0.5)	0 (0)	0 (0)	81 (40.5)	118 (59)
Healthy bones and joints	105 (52.5)	62 (31)	10 (5)	23 (11.5)	0 (0)
Cause injuries	116 (58)	72 (36)	0 (0)	12 (6)	0 (0)
Cause depression and frustration	15 (7.5)	0 (0)	1 (0.5)	59 (29.5)	125 (62.5)
Reduced risk of blood pressure/ diabetes /heart diseases	0 (0)	0 (0)	0 (0)	67 (33.5)	133 (66.5)
Help us to look better	17 (8.5)	16 (8)	72 (36)	40 (20)	55 (27.5)
Prevent from cancer	102 (51)	24 (12)	22 (11)	13 (6.5)	39 (19.5)
No effect	10 (5)	17 (8.5)	37 (18.5)	82 (41)	54 (27)

Table 2. Attitude of Consumers toward Diet

Attitude of Consumers toward Diet	Frequency (Percentage)				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>Nutrition information source</b>					
Parents, Family, relatives	27 (13.5)	11 (5.5)	28 (14)	73 (36.5)	61 (30.5)
Friends, neighbors	55 (27.5)	18 (9)	46 (23)	59 (29.5)	22 (11)
TV, newspapers	31 (15.5)	38 (19)	40 (20)	52 (26)	39 (19.5)
Books, magazines	31 (15.5)	13 (6.5)	39 (19.5)	73 (36.5)	44 (22)
Internet, social media	21 (10.5)	2 (1)	10 (5)	76 (38)	91 (45.5)
Others	95 (47.5)	65 (32.5)	40 (20)	0 (0)	0 (0)
I don't have nutrition information	15 (7.5)	13 (6.5)	73 (36.5)	45 (22.5)	54 (27)
When feel upset/bad mood, a favorite food will make feel better	20 (10)	23 (11.5)	22 (11)	102 (51)	33 (16.5)
<b>Factors encourage to eat more healthy food</b>					
Own ill health	0 (0)	1 (0.5)	51 (25.5)	120 (60)	28 (14)
Advice from a doctor or nurse or dietitian	0 (0)	0 (0)	13 (6.5)	140 (70)	47 (23.5)
Illness of a close relative	0 (0)	29 (14.5)	46 (23)	53 (26.5)	72 (36)
Having adequate money	0 (0)	37 (18.5)	81 (40.5)	55 (27.5)	27 (13.5)
Healthier food being less expensive	15 (7.5)	11 (5.5)	42 (21)	65 (32.5)	67 (33.5)
Better shops in the local area	0 (0)	10 (5)	44 (22)	105 (52.5)	41 (20.5)
Family members eating healthier food	0 (0)	0 (0)	0 (0)	103 (51.5)	97 (48.5)
Better information about food/healthy eating	0 (0)	18 (9)	10 (5)	98 (49)	74 (37)
Nothing	4 (2)	33 (16.5)	37 (18.5)	85 (42.5)	41 (20.5)
<b>Factors affects food choice</b>					
Family's food preferences	1 (0.5)	0 (0)	31 (15.5)	129 (64.5)	39 (19.5)
Mother's food preferences	0 (0)	1 (0.5)	34 (17)	111 (55.5)	54 (27)
Teaching received from the college/universities	1 (0.5)	28 (14)	79 (39.5)	58 (29)	34 (17)
Advertisement, social media	29 (14.5)	31 (15.5)	36 (18)	82 (41)	22 (11)
Friends	28 (14)	51 (25.5)	34 (17)	65 (32.5)	22 (11)
Neighbors	28 (14)	73 (36.5)	44 (22)	32 (16)	23 (11.5)
Nothing is affecting	102 (51)	55 (27.5)	31 (15.5)	12 (6)	0 (0)
<b>Media influence on dietary habits</b>					
Food ads push unnecessary and harmful products, driving consumer spending	1 (0.5)	12 (6)	34 (17)	70 (35)	83 (41.5)
<b>Difficulty facing with eating more healthy food</b>					
No difficulty in trying to eat healthier	0 (0)	30 (15)	35 (17.5)	100 (50)	35 (17.5)
Cooking skills	17 (8.5)	32 (16)	61 (30.5)	78 (39)	12 (6)
Don't know enough about healthy eating	27 (13.5)	119 (59.5)	32 (16)	22 (11)	0 (0)
Busy lifestyle	0 (0)	41 (20.5)	0 (0)	96 (48)	63 (31.5)
Taste preferences of household members	0 (0)	26 (13)	17 (8.5)	89 (44.5)	68 (34)
Don't want to give up foods that I like	0 (0)	44 (22)	46 (23)	88 (44)	22 (11)
Price of healthy foods	18 (9)	44 (22)	41 (20.5)	67 (33.5)	30 (15)
Lack of will towards healthy eating	28 (14)	27 (13.5)	47 (23.5)	58 (29)	40 (20)

**Table 3. Practices of Consumers toward Diet**

Practices Of Consumers Toward Diet	Frequency (Percentage)				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>Family food cooking is done by</b>					
Myself	51 (25.5)	36 (18)	23 (11.5)	44 (22)	46 (23)
Father	98 (49)	79 (39.5)	23 (11.5)	0 (0)	0 (0)
Maid/cook	104 (52)	79 (39.5)	17 (8.5)	0 (0)	0 (0)
Mother	27 (13.5)	27 (13.5)	1 (0.5)	49 (24.5)	96 (48)
Joint family member	84 (42)	21 (10.5)	1 (0.5)	43 (21.5)	51 (25.5)
Not cooked at home	40 (20)	40 (20)	35 (17.5)	51 (25.5)	34 (17)
<b>The decision-making regarding way of cooking and what to cook is done by</b>					
Myself	67 (33.5)	17 (8.5)	55 (27.5)	49 (24.5)	12 (6)
Siblings	61 (30.5)	61 (30.5)	24 (12)	42 (21)	12 (6)
Maid/cook	135 (67.5)	54 (27)	11 (5.5)	0 (0)	0 (0)
Mother	27 (13.5)	10 (5)	24 (12)	38 (19)	101 (50.5)
Joint family member	58 (29)	20 (10)	14 (7)	53 (26.5)	55 (27.5)
Father	103 (51.5)	28 (14)	25 (12.5)	33 (16.5)	11 (5.5)
<b>Eating outside food</b>					
Every day	108 (54)	57 (28.5)	12 (6)	11 (5.5)	12 (6)
Every alternate day	98 (49)	51 (25.5)	1 (0.5)	50 (25)	0 (0)
Once a week	48 (24)	38 (19)	37 (18.5)	37 (18.5)	40 (20)
Once a month	21 (10.5)	22 (11)	14 (7)	89 (44.5)	54 (27)
Never	122 (61)	67 (33.5)	11 (5.5)	0 (0)	0 (0)
<b>Family eating out together</b>					
Every day	48 (24)	93 (46.5)	17 (8.5)	42 (21)	0 (0)
Every alternate day	0 (0)	10 (5)	47 (23.5)	93 (46.5)	50 (25)
Once a week	21 (10.5)	68 (34)	45 (22.5)	26 (13)	40 (20)
Once a month	38 (19)	22 (11)	34 (17)	50 (25)	56 (28)
Never	17 (8.5)	20 (10)	47 (23.5)	76 (38)	40 (20)
<b>Eat differently during the weekend compared to week-days</b>					
Same food as on other days	17 (8.5)	18 (9)	21 (10.5)	80 (40)	64 (32)
Cooking something special	55 (27.5)	41 (20.5)	23 (11.5)	37 (18.5)	44 (22)
Going eating to relative's, friend's house	28 (14)	54 (27)	33 (16.5)	58 (29)	27 (13.5)
Going out (café, restaurant)	13 (6.5)	30 (15)	31 (15.5)	79 (39.5)	47 (23.5)
Home delivery	17 (8.5)	50 (25)	33 (16.5)	46 (23)	54 (27)
<b>Practices of consumers toward diet</b>					
Sweetened soft drinks available at home during meals	81 (40.5)	30 (15)	25 (12.5)	36 (18)	28 (14)
Store ready to prepare / frozen /packaged foods at Home	50 (25)	48 (24)	57 (28.5)	24 (12)	21 (10.5)
<b>Instant choice of food at home, if meal is not prepared are</b>					
2 minutes noodles	60 (30)	44 (22)	10 (5)	53 (26.5)	33 (16.5)
Nuggets / tender pops	57 (28.5)	15 (7.5)	22 (11)	69 (34.5)	37 (18.5)
Fruits	20 (10)	0 (0)	25 (12.5)	101 (50.5)	54 (27)
Salads	30 (15)	29 (14.5)	57 (28.5)	43 (21.5)	41 (20.5)
French fries	0 (0)	29 (14.5)	75 (37.5)	51 (25.5)	45 (22.5)
Milk shakes /Lassi	9 (4.5)	57 (28.5)	40 (20)	54 (27)	40 (20)
Homemade kababs	38 (19)	21 (10.5)	5 (2.5)	80 (40)	56 (28)
Online order something	9 (4.5)	42 (21)	10 (5)	99 (49.5)	40 (20)
<b>Favorite drinks</b>					
Water	0 (0)	1 (0.5)	36 (18)	42 (21)	121 (60.5)
Milk/milk shakes	0 (0)	1 (0.5)	0 (0)	103 (51.5)	96 (48)
Tea/coffee	1 (0.5)	51 (25.5)	10 (5)	37 (18.5)	101 (50.5)
Real juice, Slice	0 (0)	39 (19.5)	46 (23)	56 (28)	59 (29.5)
Soft drinks	67 (33.5)	44 (22)	28 (14)	37 (18.5)	24 (12)
Fresh juice	34 (17)	1 (0.5)	0 (0)	81 (40.5)	84 (42)
Horlicks /Complan	45 (22.5)	72 (36)	52 (26)	9 (4.5)	22 (11)
Rooh Afza/lemonade	17 (8.5)	27 (13.5)	21 (10.5)	103 (51.5)	32 (16)
Tang	17 (8.5)	37 (18.5)	32 (16)	53 (26.5)	61 (30.5)
Eating while watching TV/ using cell phones	17 (8.5)	36 (18)	21 (10.5)	70 (35)	56 (28)

**Table 4. Health Consciousness**

Health Consciousness	Frequency (Percentage)				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I reflect about my health a lot	0 (0)	0 (0)	99 (49.5)	75 (37.5)	26 (13)
I am very conscious about my health	0 (0)	57 (28.5)	57 (28.5)	63 (31.5)	23 (11.5)
I am generally attentive to my inner feeling about my health	0 (0)	27 (13.5)	34 (17)	119 (59.5)	20 (10)
I am constantly examining my health	20 (10)	35 (17.5)	41 (20.5)	82 (41)	22 (11)
I am alert to changes in my health	0 (0)	23 (11.5)	0 (0)	134 (67)	43 (21.5)
I am usually aware of my health	10 (5)	16 (8)	78 (39)	63 (31.5)	33 (16.5)
I am aware of the state of my health as I go through the day	15 (7.5)	11 (5.5)	29 (14.5)	118 (59)	27 (13.5)
I notice how I feel physically as I go through the day	0 (0)	16 (8)	28 (14)	107 (53.5)	49 (24.5)
I am very involved with my health	10 (5)	62 (31)	49 (24.5)	47 (23.5)	32 (16)

## Discussion

The purpose of this study was to provide insight and suggest strategic approaches to improve the health outcomes of young adults. In order to use effective counseling approaches for the development of positive food habits, it is possible to create an effective intervention by enhancing or growing the knowledge, attitude, and practices of dietary habits while keeping in mind their perspectives (18). Insufficient nutrition awareness from parents, a general shift toward an urban lifestyle, media promotion, and appealing packaging are some of the prevalent causes of the rise in junk food intake. Teenagers who consume large amounts of trans fats, sugar, and preservatives are suppressing their appetites and depriving themselves of essential nutrients, which contributes to the development of obesity, diabetes, and other illnesses (19). The primary sources of accurate knowledge about dietary practices and health-conscious behavior perception are schools, colleges, and health authorities. Peers also play a significant role in this regard (20).

When portion sizes are considered frequently, they paint a picture of an individual's daily eating habits. It was proposed that restricting portion sizes to lower calorie intake could help prevent unhealthful weight gain (21). The Portion Size Effect helps to break the habit of overindulging in food. The research indicated that it is not a significant impact and that a teenager could become malnourished if they just ate three meals or modest quantities without any snacks. The evidence suggests that it ought to be included in nutritional sessions, instruction, and counseling. The findings indicate that young adolescents' three-meal-a-day habits may involve large portions rather than high-energy foods, which may eventually lead to overeating and overconsumption. It is also possible that overeating may result in obesity and overweight because large portions may have an underestimated energy content (22, 23).

The 40% indifferent response to pastries, bakery goods, chips, and soft drinks should raise concerns because these items are major contributors to obesity and other non-communicable disorders. In order to reduce obesity, especially in early adolescents, and to overcome the nutritional crisis, strategic planning should take the portion size effect in this area into account. Reducing the portion

size, especially for high-energy foods like chips and colas, is one way to mitigate the portion size effect.

Unhealthy diets are linked to certain diseases; therefore, it is crucial for strategists to grasp the background of disease situations in order to properly comprehend the disease. In order to properly understand health concerns associated with an unhealthy diet, it is crucial that schools and colleges focus on developing students' health literacy abilities. This will reinforce the idea that eating a balanced diet is important for their personal health rather than dispelling false information (24).

Cravings for food are categorized as hedonistic behavior. It is a powerful motivating condition associated with strong desire, quickly shifting eating and learning environments, and finishing assignments—all of which can trigger food cravings while 50% of respondents recognize that their food cravings are unhealthy, this indicates that they are aware of health-conscious behavior. However, the remaining respondents prioritize food taste and availability when choosing which Ad Libitum snacks to consume. The majority of the foods that are readily available are starchy, made with refined wheat and sugar, and ultimately lead to obesity. Prioritizing taste and availability is heavily influenced by information gleaned from trustworthy sources. It is a crucial concept to take into account, particularly in the context of eating today (25).

Young teenagers' eating habits are improved when they eat meals with their families (26). For young consumers to make a significant dietary shift, parental engagement is required. Today's nutrition knowledge points toward a new frontier of understanding and proficiency. The focus of parental strategies in childhood nutrition education and counseling is on the practices of young adolescents nowadays. Parents who place restrictions on their children's consumption of unhealthy food may influence teenagers' and adults' adoption of good eating habits (27). By promoting food, well-known social media influencers have an impact on dietary intake. Teenagers eat more because of the unhealthy food influencer market (28). The majority of the young customers' waking hours were spent on social media and technology. This is the critical developmental stage that affects an adult's long-term health behavior. It might act as both a deterrent and an inducement to form

new habits. More meal options are said to have been made possible by social media.

## Conclusion

In order to increase knowledge about the diseases linked to unhealthy eating habits, schools should incorporate nutrition and health education into their curriculum. This will help to expose the public to the critical need for young consumers to receive an education. Young adults have accessed a variety of sources for advertising and nutrition-related messaging; they should be thoroughly examined in order to affect dietary behavior as well as attitudes and understanding about nutrition. The education sector needs to take a more proactive role. Research indicates that promoting healthy eating patterns through health education campaigns should prioritize the importance of nutrition knowledge. All schools and colleges should assess their instructional programs on a quarterly basis. More research is needed to understand how financial constraints affect the dietary habits of young, health-conscious customers and how easy it is to choose junk food over healthy options.

## Limitations

The study did not incorporate parental participation or involvement, despite the fact that they are crucial for long-term success and benefits. Teachers and staff from colleges and universities ought to be involved. Due to financial and time constraints, lab parameters—which are also indications of health status—cannot be measured in this study.

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## Ethical Approval:

This study was approved by the Board of Advanced Studies and Research (BASR) of Dow University of Health Sciences, Karachi.

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## Authors' Contribution:

**SS:** Concept and design of the study; acquisition of data, Writing, Drafting and revision of manuscript

**MI:** Analysis and interpretation of data

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