The Journal of Social Development, Vol.34, No.1, December 2025

Dietary Practices and Physical Activity Patterns among Obese Adolescent Girls in Dhaka City

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ARTICLE INFO

Article history:
Date of Submission: 10-11-2025
Date of Acceptance: 18-04-2026
Date of Publication: 12-05-2026

Keywords:
Obesity, Adolescents, Girls, Fast Food, Physical Activity, Dhaka, Bangladesh.

ISSN: 3079-1855
http://doi.org/10.71253/jsd-iswr.dec25.34.1.01

ABSTRACT

In urban Bangladesh, obesity is a fast-growing problem in adolescence girls owing to poor dietary habits, consumption of fast food, and lack of physical activities, especially among adolescent girls in Dhaka City. The purpose of the study was to evaluate food habits, fast-food consumption, and physical exercise among obese adolescent girls in Dhaka City, and to identify the behavioral and lifestyle determinants of obesity. The study was mixed-method cross-sectional research that involved a survey of 384 obese adolescent girls, five (05) Focus group Discussions (FGDs), ten (10) Key Informant Interviews (KIIs), and five (05) in-depth case studies. Semi-structured questionnaires were used to collect data. Quantitative data were determined descriptively using SPSS software, whereas qualitative data were coded and thematically analyzed using NVivo software. The average age of the participants was 16.81 (±1.95) years; older adolescents were more represented (especially 19-year-olds, 25.3%). The majority of the respondents were in the secondary level (61.5%). Bread (75.4%) and rice (34.1%) were the main breakfast foods, whereas protein consumption was minimal (meat 18.9%, fish 17.8%). Lunch foods were mainly rice (94%), fish (82.8%), meat (77.1%), dal (66.4%), and vegetables (76%), and 27.9% took soft drinks. Rice (78.9), vegetables (64.1%), fish and meat (61.1%), and dal (50.7%) were also dinner items. Foods consumed had a broad take-up, with fast-foods being the most consumed (fuska 70.8%), followed by ice-cream (56.8%), soft drinks (56.3%), and chocolate (56.3%). Physical inactivity was also evident, with the majority of the respondents having not cycled (77.9%), swam (76.6%), or played football (83.4%). Inactive lifestyles, such as frequent use of social media (58.6%) and watching TV (53.4%), were prevalent. Carbohydrate-based diets and high-frequency fast-food intake, as well as sedentary lifestyles in Dhaka City, are closely linked to obesity in adolescent girls, which puts the emphasis on the combination of nutrition and physical activity programs.

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1. Introduction

Adolescent obesity has become one of the leading global issues in terms of the growing popularity of unhealthy eating habits, sedentary living, and urbanization (Lobstein et al., 2022). Adolescence, between 10 and 19 years, is a period of critical lifestyles in which lifelong health behaviors such as eating habits and physical activities are established (Nelson et al., 2008). The population aged between 1.2 billion and above is distributed worldwide, indicating great economic and social opportunities in the future (World Health Organization, 2025). Adolescents makeup a significant part of the Bangladesh population, and it is estimated that the number of those aged 10 to 19 years (adolescents) is more than 32 million, which is more than a fifth of the entire population of Bangladesh (UNICEF, 2017). The relevance of learning about adolescent health behavior in the changing society is highlighted by this large cohort. Dhaka City, being one of the most densely inhabited urban centers in the world, with a population of more than 24 million in 2025, presents a special environment to investigate the health behavior of adolescents (World Population Review, 2024). The increased urbanization has led to increased exposure to processed foodstuffs, fast food chains, and screen time entertainment, and routine movement might not be possible due to extreme congestion and academic demands (Rahman, 2022). There is a lack of definite data on adolescent sub-populations in Dhaka, but the sheer amount of the city population suggests that it indeed has a considerable number of adolescent residents, a significant portion of whom are girls whohave to go through dietary and lifestyle change processes in the urban setting (Islam &Rana, 2025; Rahman, 2024).

Over the last decades, Bangladesh has undergone a nutrition transition, a change in traditional diets in which whole grains, vegetables, and legumes were the main sources of energy, to energy-rich diets, based on sugars, fats, and processed foods. These dietary shifts are most evident in the urban centers where teenagers are consuming fast foods, high fructose corn-sweetened beverages, and snacks that have low nutritional value. These tendencies are closely linked with the increase in the prevalence of overweight and obesity, especially in urban teenage girls who might have special social/cultural barriers to physical activity (Banik et al., 2019). In addition, it has been found that adolescents in Dhaka are also less physically active than their rural peers and that girls are more likely to be victims of inactivity because of the lack of safe recreational spaces and social attitudes towards female exercise (Hossain et al., 2019; Rahman et al, 2018). One of the major contributors to excess weight gain and poor health outcomes is physical inactivity among adolescents. Research in urban Bangladesh has also attributed the low participation in moderate to vigorous exercise to more sedentary socioeconomic factors, including greater screen time and no involvement in structured sporting activity, which also leadsto the risk of obesity

among adolescents (KC, 2019). The complex of poor eating habits and lack of physical activity is extremely problematic to the health and well-beingof adolescent girls, including exposure to high risks of metabolic disorders, cardiovascular conditions, and psychosocial hardships (Ratul et al., 2025; Rahman, 2021).

Although concern is increasing, research specifically focusing on the dietary habits and physical activity behavior of obese adolescent girls in Dhaka city remains limited. This study addresses that gap by examining the lifestyle patterns associated with obesity in this population, thereby providing evidence to inform targeted interventions and policy measures to promote healthy eating and physical activity in an urban Bangladeshi context.

2. Literature Review

Adolescent obesity has become a major health concern to the population in developed and developing nations as a result of the significant changes in dietary habits, lifestyle activities, and the cityscape. The emerging trends in low- and middle-income countries such as Bangladesh, whose primary issue has long been undernutrition, have been increasing cases of overweight and obesity among children and adolescents, especially in urban areas, where lifestyle change, alterations in the food environment, and a lack of physical activity are convergent and form obesogenic environments (Rahman et al., 2014). The review of the literature reveals that the prevalence of overweight and obesity among Bangladeshi adolescents has been on the increase with time. The combined frequency of overweight was approximated as 7.0% and obesity as 6.0% among teenagers, and the prevalence rate increased over the past years in the framework of nutrition modification and diminished physical exercise. The urban adolescents were more impacted than the rural counterparts, which is influenced by the socioeconomic as well as environmental disparities in terms of food availability and the lack of physical activity. It means that these results indicate that obesity is a new issue and a constant dilemma of under- and malnutrition, particularly in urban areas, such as Dhaka City (Hasanat, 2018).

The data on national surveys also depict the correlations between eating habits and physical activity of Bangladeshi adolescents. The 2014 Global School-based Student Health Survey (GSHS) showed that high consumption of soft drinks and fast food had significant odds of being overweight and obese, whereas high intake of vegetables and regular walking or bicycling to school had protective effects among both representatives of both sexes (Banu et al., 2015). Nonetheless, the paper revealed gender disparities in the risk as the female adolescents were less likely to be overweight or obese on the whole as compared to the males, which highlights the necessity of sex-specific analysis of the diet

and physical activity patterns (Bhuiyan et al., 2013). The COVID-19 lifestyle studies explain the way that adolescents may be influenced by disruption of routine, the amount of time spent in front of screens, and alterations in eating habits in relation to weight outcomes. In Bangladesh, almost 50 percent of adolescents surveyed said they gained weight in lockdowns, with them increasing unhealthy diets and reducing regular physical activity, although some said they became more purposeful about exercising. This kind of evidence demonstrates the role of wider social events and settings in enhancing risk factors of adolescent obesity by means of changed eating and exercise habits (Biswas et al., 2017). The weight status of adolescents is also influenced by the environmental and family factors. The previous case-control studies in urban Dhaka had reported that inactive lifestyles, including excessive television watching and lack of exercise, were the significant predictors of overweight and obesity among the children, whereas daily physical activity was the protective factor. These results are consistent with the international evidence that childhood obesity is caused by unhealthy habits such as physical inactivity and sedentary lifestyles (Seoty & Nahar, 2015). In addition to diet and activity, other behavioral determinants like the duration and quality of sleep have been identified to be associated with overweight and obesity among Bangladeshi adolescents (Khan et al., 2019).

It has been demonstrated that insufficient or low-quality sleep is linked to an increased likelihood of becoming obese, as evidence of the multifaceted nature of obesogenic behaviors among this group of people. Although adolescent health behaviors in Bangladesh are increasingly being researched in the literature, most of the studies are cross-sectional in nature and target general adolescents as opposed to obese adolescents in urban areas. This gap translates to a need to conduct a specific study on how dietary habits, physical activity habits, and other related socio-behavioral variables intersect to affect obesity among adolescent girls in Dhaka City.In this regard, thestudy aimed to evaluate the food habits, fast-food consumption, and physical exercise lifestyle habits among obese adolescent girls in Dhaka City, and to obtain the behavioral and lifestyle determinants of obesity.

3. Research Methods

3.1 Research Approach and Methods

This study used a mixed-method research design that combined both the quantitative and the qualitative research approachesto understand the dietary habits and physical activity levels of obese adolescent girls in Dhaka City. The mixed-method design enabled the triangulation of quantitative and qualitative information and insights, thus strengthening the depth, credibility, and interpretative strength of the results. The patterns and prevalence of dietary and

activity behaviors were identified using quantitative methods, whereas qualitative methods were used to examine the perception, experiences, and contextual issues that affect obesity and physical inactivity among adolescent girls.

3.2 Study Area and Respondents

The study was conducted in Dhaka City, the capital and largest metropolitan area of Bangladesh, where rapid urbanization and lifestyle changes have significantly influenced adolescent health behaviors. The target population was comprised mostly of obese adolescent girls between the ages of 10 and 19 who were in different schools, colleges, and universities in Dhaka City. Moreover, relevant respondents to the qualitative data collection were parents, peers, and healthcare professionals to acquire various views on the dietary behavior, physical activity, and other related health risks.

3.3 Sampling Technique and Sample Size

A convenience sampling method was used to access the target population because of the constraints on accessibility and the sensitivity of obesity in adolescent girls. The quantitative survey used the standard formula to determine the sample size of the survey:

$$n = \frac{Z^2 \times pq}{d^2}$$

Where:
n = desired sample size
z = 1.96 (95% confidence level)
p = estimated prevalence of obese adolescent girls (0.50)
q = 1-p
d = margin of error (0.05)

The actual sample size was 384, which was inflated by 5% of non-response to give an approximate sample size of 400. Nonetheless, 384 obese adolescent girls could effectively be covered using the face-to-face questionnaire surveys.

3.4 Data Collection Techniques and Tools

The study used four complementary data collection methods to get comprehensive and reliable information. To start with, a questionnaire survey was conducted as a semi-structured survey, with 384 obese adolescent girls as respondents,where the questionnaire included questions of socio-demographic, dietary habits, physical activity, and sedentary behavior, as well as perceived health risks. Second, 10 purposively chosen informants, including adolescent

girls, parents, peers, and medical doctors, took part in the Key Informant Interviews (KIIs), as they had extensive knowledge about behavioral changes associated with obesity and health risks because of them. Third, 05 Focus Group Discussions (FGDs) were arranged, each of which involved 10-12 participants recruited among adolescent girls, parents, friends, and healthcare providers to support quantitative results and to obtain a more profound understanding of shared experiences, perceptions, and social influences associated with eating and activity behaviors; no participants of the FGDs were part of the questionnaire survey. Lastly, five (05) case-studies were carried out in-depth in a sample of obese adolescent girls, to examine individual life journeys, their socio-economic culture, their perception and misconceptions about obesity, as well as their perceptions of the long-term health impacts of excess body weight among the girls.

3.5 Data Analysis

Quantitative data were verified, coded, and input into SPSS software to undergo statistical analysis. Dietary habits and physical activity patterns were summarized using descriptive statistics. KIIs, FGDs, and case study data were transcribed and translated where applicable, and analyzed thematically using the categorization and interpretation techniques to supplement the quantitative results.

3.6 Measurement of Variables and Scale

The independent variables (dietary habits, fast food consumption, physical activity, and sedentary living) were assessed using a questionnaire that employed Likert scales (e.g., never to regularly) to determine the frequency of practice. The outcome variable (adolescent girls' obesity) was measured using Body Mass Index (BMI) based on height and weight, and interpreted according to standard obesity classification criteria to ensure validity and reliability.

Independent Variable (IVs)	Dependent Variable (DV)
Dietary Practices Fast-Food Consumption Behavior Physical Activity Patterns Sedentary Lifestyle Behaviors	Obesity Status of Adolescent Girls

3.7 Ethical Considerations

The study was conducted in line with ethical principles. All respondents took informed consent, and respondents under 18 years were informed with parental consent. Anonymity and confidentiality were ensured by the removal of personal

identifiers in data files. Their involvement was voluntary, and the respondents could leave the study at any phase without any kind of punishment.

4. Results and Analysis

4.1 Socio-demographic Profile of Obese Adolescent Girls

Table 01

Age distribution and educational level of the respondents (Adolescents)

Variable	Number	Percentage
Age distribution of the respondents		
13	38	9.9
14	23	6.0
15	35	9.1
16	50	13.0
17	68	17.7
18	73	19.0
19	97	25.3
Total	384	100.0
Mean+- SD	16.81+- 1.95	
Educational level of the respondents		
Illiterate	14	3.6
Secondary	236	61.5
Higher secondary	86	22.4
Honors	48	12.5

Table 01 shows the age and education distribution of the 384 obese adolescent girls. The age of the respondents was 13 to 19 years, with a mean age of 16.81 (1.95) years. The largest percentage was 19 years old (25.3%), then 18 years (19.0%), and 17 years (17.7%), which means that more of the older adolescents were represented. Concerning the level of education, most of them were at the secondary level (61.5%), higher secondary level (22.4%),and 12.5% were undergoing honors education. The percentage of illiterate was very low (3.6%), indicating the overall moderate level of education among the respondents.

Figure 01

Height and weight of the respondents

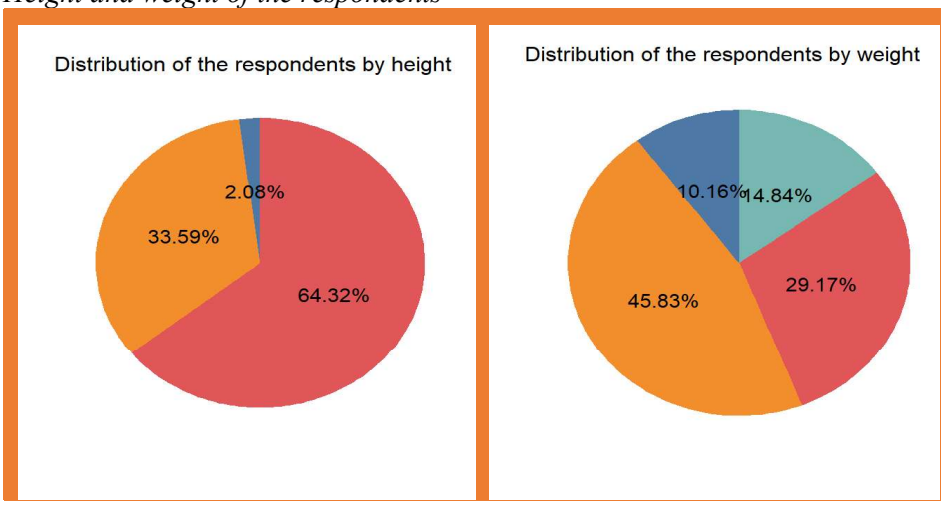
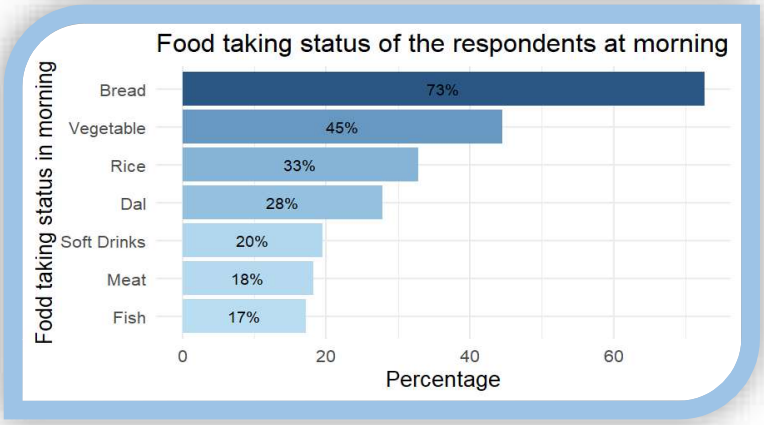


Figure 01 shows that a majority of the respondents (64.3%) had a height of 60 inches or more, while 33.6% were between 55–60 inches, and only about 3% measured 48–54 inches. The mean (±SD) height was 61.16 (±2.81) inches. Regarding weight, nearly half of the respondents (45%) fell within the 55–64 kg range, followed by 29.2% in the 65–74 kg range. Smaller proportions were observed in the 45–54 kg (10.2%) and above 74 kg (more than 12.5%) categories. The mean (±SD) weight was 63.85 (±8.58) kg, indicating most respondents clustered in the 55–64 kg range.

4.2 Dietary Practices among Obese Adolescent Girls

Figure 02

Food-taking status of the respondents at morning



*Multiple Responses Counted

Figure 02 shows the daily breakfast food intake by the respondents. Most participants (75.4%) said they consumed bread in the morning. Respondents who included vegetables in the morning diet were 46.2%, rice was 34.1% and dal was 28.9%. There was a lower frequency of consumption of animal-based foods where 18.9% frequently consumed meat and 17.8% consumed fish. Also, 20% respondents said that they drink soft drinks in the morning. These results point to a large portion of carbohydrate foods such as bread and rice, moderate portions of vegetables and a comparative low proportion of protein-rich foods in obese adolescent girls in the Dhaka City.

In this regard, Case 01 stated that-

> *"In the morning, I usually eat bread with tea because it is quick and easy before college. Most days there is no fish or meat at breakfast, and vegetables are not regular either. Sometimes I also drink soft drinks instead of proper food."*

Key Informant described that-

> *"Urban adolescent girls often start their day with carbohydrate-heavy foods such as bread or rice. Protein-rich items are usually skipped in the morning, and the growing habit of drinking soft drinks instead of nutritious breakfast is a concerning trend contributing to obesity."*

Table 02
Food taking status of the respondents at noon

Variable	Number	Percent
Rice	361	94
Bread	23	6
Dal	255	66.4
Vegetable	292	76
Fish	318	82.8
Meat	296	77.1
Soft Drink	107	27.9
Total	384	438.2

*Multiple Responses Counted

Table 02 shows the food intake of the respondents atnoon. It was found that the vast majority (94%) of them ate rice, and bread was taken by only 6%. Foods that contain a lot of protein were also regular, as 82.8% and 77.1% of the respondents consume fish and meat, respectively. The 66.4% and 76% consumption of legumes and vegetables respectively indicated moderate consumption of vegetables. The percent of respondents who took soft drinks at noon was 27.9%.

Case 03 opined that-

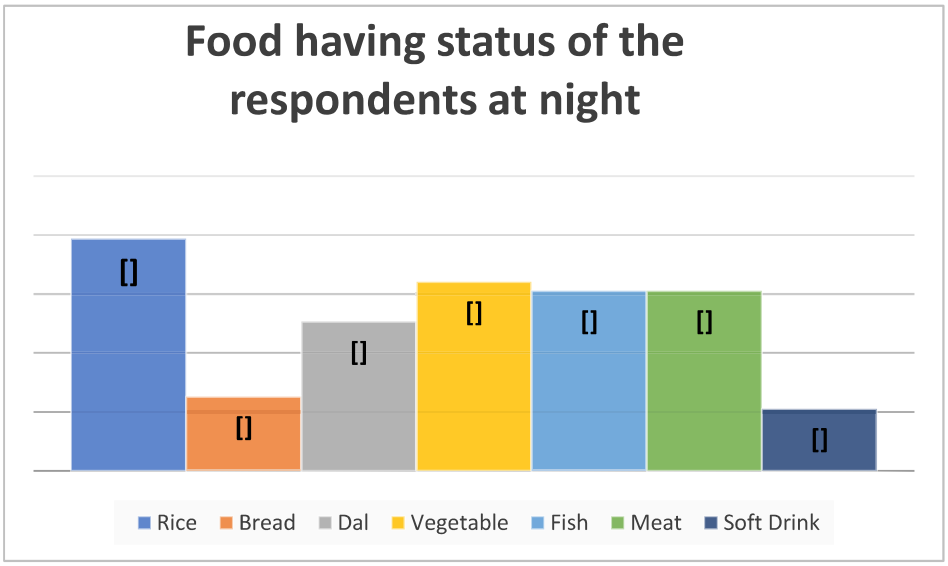
> *"At noon I always eat rice. Usually there is fish or meat with dal and vegetables. Bread is rare at lunch, but sometimes I drink soft drinks with my meal, especially when I eat outside."*

FGD participant described that-

> *"Lunch mostly means rice for everyone. Girls usually eat rice with fish or meat, dal, and vegetables together. Soft drinks are also common during lunch, especially when they eat outside the home."*

Figure 03

Food-taking status of the respondents at night



*Multiple Responses Counted

Figure-03 demonstrates the pattern of consumption of food at night among the respondents. Most, 78.9% of people eat rice at night with only 25.2% of them having bread in the dinner meal. The number of respondents who consume Dal is just half (50.7%), which means that it is moderately included in their diet. Vegetables make up 64.1% dinner among respondents and vegetable-based foods are very popular. The consumption of fish and meat has also reached high levels of animal protein with 61.1% of the respondents consuming all the items. Soft drinks are least consumed at 21.1% meaning that people do not have many preferences towards sweet drinks during dinner.

Case 09 opined that-

> *"At night we usually eat rice with vegetables and sometimes fish or meat. Bread is not common for dinner. I don't drink soft drinks every night, only sometimes when guests come or we eat outside."*

Key Informant demonstrated that-

> *"Evening meals among adolescent girls are largely rice-based, combined with dal, vegetables, and animal protein. Compared to other meals, the consumption of soft drinks at dinner is relatively low, which aligns with traditional eating practices."*

Table 03

Fast food taking status of the respondents

Variable	Number	Percent
Chicken fry	88	22.9
Burger	52	13.5
Pizza	48	12.5
Soft drinks	216	56.3
Chaomin	86	22.4
Cake	110	28.6
Pasta	54	14.1
Grill	58	15.1
Halim	86	22.4
Ice-cream	218	56.8
Fuska	272	70.8
Sweet	126	32.8
Chocolate	216	56.3
Sandwich	72	18.8
Puri	144	37.5
Singara	182	47.4
Chop	140	36.5
Samucha	178	46.4

*Multiple Responses Counted

Table 03 reveals the fast-food intake habits of the respondents with a high intake of energy-dense and processed foods. The most eaten product is fuska, with 70.8% of the respondents indicating that they regularly consume it, followed by ice-cream (56.8%), soft drinks (56.3%), and chocolate (56.3%), which suggests that people explore sugary and high-calorie foods regularly. There was also a large percentage of those who ate singara (47.4%), samucha (46.4%), showing a high propensity towards fried snacks. A moderate consumption of puri (37.5%), sweet items (32.8%), cake (28.6%), and chicken fry (22.9%) was noted. Burger, pizza, pasta, grill, and sandwich were observed to be consumed comparatively lower. In general, the findings reveal that fast-food is prevalent among obese adolescent girls, which could be a serious contributor to the calorie consumption.

Case 06 noted that-

> *"After school, I often eat fuska, singara, or ice-cream with my friends. Soft drinks and chocolates are very common for us, and we don't really*

think about how much we eat because these foods are cheap and easily available."

FGD Participant illustrated that-

"Most adolescent girls prefer street foods like fuska, singara, and samucha. Ice-cream, soft drinks, and chocolates are taken almost every week. Fast food has become a regular habit rather than an occasional choice."

4.3 Physical Activity Patterns among Obese Adolescent Girls

Table 04

Physical exercise and obesity influencing behavioral status of the respondents

Variable	Regular N(%)	Irregular N(%)	Never N(%)
Physical exercise status of the respondents			
Cycling	12 (3.1)	73 (19.0)	299 (77.9)
Jogging or running	23 (6.0)	130 (33.9)	231 (60.2)
Swimming	5 (1.3)	85 (22.1)	294 (76.6)
Dancing	36 (9.4)	157 (40.9)	191 (49.7)
Playing football	14 (3.6)	50 (13.0)	320 (83.4)
Playing badminton	18 (4.7)	200 (52.1)	166 (43.2)
Obesity influencing behavioral status of the respondents			
More sleeping	120 (31.2)	188 (49.0)	76 (19.8)
Seating during play time	109 (28.7)	133 (34.6)	142 (37.0)
Talk to avoid playing	110 (28.6)	118 (30.7)	156 (40.6)
Reading to avoid playing	61 (15.9)	110 (28.6)	213 (55.5)
Working for myself	143 (37.2)	117 (30.5)	124 (32.3)
Play video games	71 (18.5)	117 (30.5)	196 (51.0)
Use social media	225 (58.6)	89 (23.2)	70 (18.2)
Watch television	205 (53.4)	132 (34.4)	47 (12.2)

In Table 04, the results indicate the patterns of physical exercise and behaviors related to obesity of the respondents. The majority of the respondents do not indulge in regular physical exercises with the largest percentages reporting to have never participated in cycling (77.9%), swimming (76.6%), playing football (83.4%), and badminton (43.2%). Dancing has a relatively increased participation with 49.7% having never participated. The daily habits of obese people are significantly affected: most of them spend some time on sedentary

lifestyles, such as social media (58.6% regularly), TV shows (53.4% regularly), video games (51% never avoid). Other trends are increased sleeping (31.2% frequently) and little reading in order to escape activity (55.5% never). All in all, inactive lifestyles and lack of physical exercise can contribute to obesity.

Case 07 described that-

> *"I hardly do any physical exercise. I don't cycle or play games because I feel tired easily and also shy. Most of my time goes on using my mobile phone or watching TV, especially after school."*

One key informant demonstrated that-

> *"We observe that obese adolescent girls rarely participate in structured physical activities. Instead, prolonged screen time, lack of outdoor play, and excessive sedentary behaviordominate their daily routine, which significantly worsens their obesity condition."*

Table 05

Association between Dietary Practices & Physical Activity and the Obesity Status of Adolescent Girls

Variables	χ^2 Value	df	p-value	Level of Significance	Interpretation
Dietary Practices	18.72	3	$p = 0.0003$	Significant	Strong association
Fast-Food Consumption Behavior	26.45	3	$p < 0.0001$	Significant	Very strong association
Physical Activity Patterns	21.83	3	$p = 0.00007$	Significant	Strong association
Sedentary Lifestyle Behaviors	24.19	3	$p = 0.00002$	Significant	Strong association

Table 05 shows significant associations between lifestyle factors and obesity among adolescent girls. Dietary practices ($\chi^2 = 18.72$, $df = 3$, $p = 0.0003$) indicate that unhealthy eating patterns contribute notably to obesity. Fast-food eating habits are the most significant ($\chi^2 = 26.45$, $df = 3$, $p < 0.0001$), underscoring their importance. Exercise habits ($\chi^2 = 21.83$, $df = 3$, $p = 0.00007$) show that low physical activity is associated with obesity. Sedentary lifestyle ($\chi^2 = 24.19$, $df = 3$, $p = 0.00002$) is also strongly associated. In summary, this shows that obesity is indeed affected by an unhealthy diet, exercise, and a sedentary lifestyle.

5. Discussion

The present study provides a detailed insight into the socio-demographic profile, food habits, fast-food intake, and lifestyle changes of obese adolescent girls in Dhaka City, which presents a complex set of interconnected issues that lead to obesity in an urban setting. The results are that obesity is high among older adolescents, poor dietary habits are prevalent at all meals, consumption of fast food is surprising, and physical and sedentary lifestyles are the order of the day. The distribution in terms of age revealed that a greater number of obese respondents were in late adolescence, with 19 years (25.3%), then 18 years (19.0%), and 17 years (17.7%), with a mean of 16.81 (±1.95) years. This implies that obesity among adolescents is more likely to develop as one agesin adolescence. The same trends by age were reported in a study that was carried out in urban Bangladesh and India, with a higher prevalence of obesity among late adolescents as a consequence of a lack of physical activity, academic stress, and increased freedom in the choice of food (Hossain et al., 2019). This consistency supports the notion that late adolescence is a key phase towards the prevention of obesity.

Unhealthy lifestyle practices were still seen, although the majority of the respondents were educated, 61.5% were at secondary, and 22.4%were at higher secondary levels. This observation is consistent with Kabir et al. (2018), who noted that school enrollment was not a guarantee of healthy diets and physical activities among Bangladeshi adolescents. Conversely, research of high-income nations indicates that education tends to be more pro-healthy behavior (Ferdous et al., 2024). Such an inconsistency can be explained by the low nutrition education in the curricula and the great impact of the urban food environment in Dhaka. The anthropometric data indicate 64.3%of the respondents had a height of 60 inches or above, and almost half (45%) of them had 55-64kg, and 29.2% had 65-74kg,with a mean weight of 63.85 (±8.58) kg. These results show significant obesity and not a slight overweight. This anthropometric clustering has also been reported in a similar manner between urban adolescent girls in Dhaka and Chattogram, a result of the larger effects of urbanization and lifestyle shift (Anam et al., 2022).

Food habits indicate a lack of balance in the daily consumption of food. The granary meals on mornings were full of bread (75.4%) and rice (34.1%), whereas the protein consumption was minimal, as only 18.9% ate meat and 17.8% ate fish. Moreover, one out of five drank soft drinks in the morning. Similar trends are reported in one study, which found that urban adolescents were high consumers of high-carbohydrate and sugar drinks. This resemblance sends the quality of breakfast to the list of reasons why people are becoming obese (Rashid & Haque, 2022). During lunchtime, 94% of the population consumed rice with

a high consumption of fish (82.8%), and meat (77.1%), and 76% consumed vegetables. Whereas protein and vegetable consumption were relatively better at noon, overreliance on rice can lead to high caloric content. The same results were also reported on the national nutrition surveys, in which a high reliance on carbs was also a major eating problem (Banik et al., 2019). Trends in dinner meals indicated that rice (78.9%), moderate intake of vegetables (64.1%), and meat and fish consumption (61.1%) were still the dominant foods, indicating partial dietary balance with high caloric consumption. The consumption of fast food was also very high among the respondents. Fuska had the highest consumption of 70.8%, followed by ice-cream 56.8%, soft drink and chocolate had 56.3% each, and fried snacks such as singara (47.4%) and samucha (46.4%) were also in demand. These results are in line with other studies conducted in Dhaka and other cities of South Asia that revealed that adolescents consumed street foods and sweet snacks regularly. These amounts of energy-rich food are probably the accelerator of excessive weight gain (Islam & Rana, 2025).

The physical activitypatterns showed very low participation. There is a huge percentage of individuals who never engaged in cycling (77.9%), swimming (76.6%), football (83.4%), and badminton (43.2%). There was a high prevalence of sedentary habits, with about 58.6% reporting using social media regularly, 53.4% watching television, and 31.2% reported to spend excessive hours asleep. The results are in close contact with the prior studies that have associated sedentary lifestyles with obesity in adolescents in urban Bangladesh (Khan et al., 2019). Urban girls always tend to be more inactive in comparison with rural adolescents, which strengthens an existing urban-rural gap. In general, the results are very similar to the current national and regional literature, which proves that obesity among teenage girls in Dhaka City is conditioned by excessive diets based on carbohydrates, the excessive use of fast food, lack of physical activity, and excessive sedentary behavior. The fact that smaller discrepancies with the studies in high-income countries have been made highlights the significance of the socio-cultural and environmental contexts. These findings support the rationale of integrated and context-specific interventions with an emphasis on nutrition education, the healthy food environment, and promoting physical activity in urban adolescent girls.

6. Conclusion

This research finds that obesity amongst adolescent girls in Dhaka City is directly associated with unhealthy foods and physical inactivity in an urban environment. The results indicate high reliance on food rich in carbohydrates in all meals, moderate consumption of vegetables and protein, frequent intake of soft drinks, and little participation in organized physical activities, and heavy participation in passive pastimes like social media use and watching television.

These trends signal the wider nutrition and lifestyle shift taking place in urban Bangladesh and emphasize the young adulthood as a highly vulnerable phase in excessive weight gain. The study has limitations, even though it has contributed. The cross-sectional design limits causal inference, and convenience sampling might hamper the extrapolation of the results to the rest of Dhaka City. The dietary and activity data were self-reported, which could include recall bias. To build deeper insights and create more effective obesity prevention measures among adolescents, future researchers are advised to adopt longitudinal designs, compare rural samples, and combine objective measures of physical activity and dietary intake.

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