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Skipping Breakfast and its Association with Socio-demographic Characteristics, Night Eating Syndrome, and Sleep Quality among University Students in Karachi: A Cross Sectional Study

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ABSTRACT

Morning meal is often considered as essential meal, yet many university students omit this meal owing to diverse habits and daily routine. Studies suggested a potential connection between *breakfast omission, demographic traits, irregular eating patterns like Night Eating Syndrome(NES) and poor sleep efficiency. Students in the academic environment experience high stress, along with erratic meal timing and sleep issues, which could be factors in omission of first meal. Despite the fact that breakfast omission is frequently linked to reduced mental clarity and lower energy, its specific effects on university students remains under-researched. Exploring these factors will shed light on how sociodemographic variables, eating patterns and sleep efficiency affect breakfast omission and offer direction for health related interventions. To determine the patterns of breakfast omission and its potential effect on sleep quality and overall physical health among university students in Karachi. The purpose of this study is to assess breakfast omission patterns and their association with physical health status and sleep quality among university students in Karachi. A cross sectional study will be conducted, including male and female students aged (above 18 years) from various academic disciplines. Following the acquisition of informed consent, participants will be surveyed using physical questionnaire to collect requisite data. The data will be analyzed and interpreted using the SPSS version. We conducted a cross sectional study that assessed the relationship between Skipping breakfast and its association with sociodemographic characteristics, night eating syndrome, and sleep quality among university students in Karachi. Significant associations were found especially between sleep quality and Night Eating Syndrome(NES). Chi-square test indicated that hypothesis with p values less than 0.05 are statistically significant except for the relation between sociodemographic factors and skipping breakfast. Statistical test showed significant relationship between skipping breakfast and sleep quality except for the non-significant relationship between sociodemographic factors and breakfast omission. The study suggests that improving sleep quality may minimize breakfast omission in university students along with eliminating health related consequences. Statistical analysis confirmed the rejection of null hypothesis, indicating positive connection between breakfast skipping and sleep quality. Further research should focus on Long term consequences or health related effects of breakfast omission on sleep quality.*

Keywords: *Sleep quality. Eating behavior, night eating syndrome, university students, physical health, Skipping breakfast.*

INTRODUCTION

Breakfast is considered as first and most important meal of the day. According to a recommendation, it should have 20% to 35% of daily energy requirements. It's crucial for maintain healthy lifestyle.[1] Daily breakfast routine enhance nutrient intake provide a boosting energy for physical and mental function, framing it as integral to healthy living.[2] Breakfast helps to regulate and balance glucose levels and give the nutrients that body need after a long time of sleep. Omitting breakfast regularly justn't does mess with metabolism: it can have impact on brain function.[3] Night Eating Syndrome (NES) is an abnormal eating pattern characterized by an excessive consumption of food during the evening or night time. This consists of eating as a minimum 25 percentages of your day by day calorie consumption after dinner and common night time feedings. Nervous system issues are related to psychological, neurological and genetic factors.[4] Although the etiology of NES is poorly understood, the syndrome is notion to end result from a desynchronization of mood, sleep, satiety, and circadian rhythms of meals ingestion.[5]

Breakfast skipping is at the boom and may have a tremendous effect on health, performance, temper and different physiological and mental elements and it may notably have an effect on a person`s health, performance, temper, and different physiological and mental elements.[6] Scientific research have mentioned that sleep deprivation reasons an associated growth in caloric intake. Evidence helps an excessive correlation.[7] Night Eating Syndrome (NES) can negatively affect Body Mass Index (BMI), growing the danger of obese and obesity. It is likewise related to impaired glucose metabolism, main to a better chance of growing kind 2 diabetes mellitus (T2DM). NES frequently disrupts sleep quality and decreases bodily activity stages because of fatigue. These mixed consequences substantially boost the danger of cardio metabolic diseases.[8]

Lack of sleep has been proven to growth snacking, the wide variety of food ate up in keeping with day, and the desire for power-wealthy foods. Proposed mechanisms through which inadequate sleep might also additionally growth caloric intake include: extra time and possibilities for eating, mental distress, more sensitivity to meals reward, disinhibited eating, extra power had to maintain prolonged wakefulness, and adjustments in urge for food hormones.[9] Evidence indicates that people with short sleep length frequently show off odd consuming patterns. Instead of following the traditional 3 balanced foods in line with day, they have a tendency to devour fewer important food and extra frequent, smaller snacks. These snacks are normally energy-dense and fairly palatable, frequently fed on at some point of the nighttime hours. Such consuming conduct might also additionally make a contribution to terrible nutritional first-rate and accelerated threat of metabolic disorders.[10]

A study regarding 21,958 college students throughout 28 international locations pronounced that 48% of college students skipped breakfast. Factors together with dwelling away from home, perceived overweight, insufficient fruit and vegetable intake, bodily inactivity, quick sleep, lengthy sleep, depression, and involvement in bodily fights had been related to breakfast skipping.[11] A study at Patuakhali Science and Technology University (Bangladesh)located that 63.5% of college students skipped breakfast. Female college students, smokers, people with night time ingesting syndrome, and college students with negative sleep great had been much more likely to bypass breakfast.5 In Iran, prevalence is found to be of 21%, being common in females.[12] Research at a public university in Kuala Lumpur(Malaysia) reported that 29.2% of undergraduates skipped breakfast.[13] Research performed in China amongst college students located that 28.9% of college students reported skipping breakfast. This occurrence suggests a super percentage of people on this populace neglecting their morning meals. Such conduct may be encouraged with the aid of using a number of factors, which include time constraints, life-style habits, and educational pressures. The findings spotlight the significance of addressing breakfast skipping as a public fitness concern, as it could have long-time period implications for college students`

bodily fitness and well-being.[14] A study at Akhtar Saeed Medical and Dental College, Pakistan found that 66% of undergraduate students skipped breakfast. The most common excuse given for skipping breakfast was that 29 participants (16 percent) did not enjoy eating in the morning or did not have enough time to do so, while 62 participants (34 percent) had no excuse. In addition, missing breakfast was linked to 91 percent of participants reporting feeling hungry, lethargic, grumpy, headaches, difficulty paying attention in class, and fatigue, while 17 participants (9 percent) reported experiencing dizziness and stomachaches. [15].Research at Shah Abdul Latif University, Khairpur revealed that 35.1% of students skipped breakfast, with a higher prevalence among males (68%) compared to females (41%). [16]According to the study in Karachi,18.6% of medical students skipped breakfast with majority being females. and the various fundamental elements related to skipping of breakfast turned into a scarcity of time (56.3%).[17]

Several elements make a contribution to the dependency of skipping breakfast. These encompass a loss of appetite, restrained time withinside the morning, and economic constraints. Additionally, people might also additionally pass breakfast because of tries to govern or manage frame weight. Other influencing elements encompass late-night time consuming behavior and social or peer stress associated with appearance.[2] Irregular breakfast consumption conduct has been broadly identified as a contributing element to diverse physical, cognitive, and metabolic fitness issues. Skipping or erratically eating breakfast can bring about big fatigue and decreased strength stages through midday, negatively impacting usual productiveness and day by day functioning. It may additionally result in altered behavioral patterns, inclusive of irritability or loss of concentration, in conjunction with impaired cognitive performance specifically affecting memory, interest span, and decision-making abilities. These outcomes can avert each educational and occupational efficiency, especially amongst teens and running individuals.[18]Night ingesting syndrome is characterized via way of means of as a minimum three of the subsequent symptoms: A robust urge to devour among dinner and going to bed, Anorexia within side the morning and for the duration of the night, Maintenance or sleep onset insomnia, Depressed temper, Evening temper worsening, the perception that one cannot sleep without ingesting.[19]Breakfast omission is linked to various physiological and psychological consequences which manifest themselves in various sign and symptoms. People who often skip breakfast report fatigue, daytime sleepiness, difficulty in concentrating and mood swings, all of which are associated with insufficient morning energy intake.[12]

Poor sleep quality is another significant symptom noticed among breakfast skippers. Research demonstrate that skipping breakfast contributes to delayed sleep onset, frequent nocturnal awakenings, and reduced overall sleep duration, likely due to disrupted circadian rythms.[6] Abnormal breakfast behavior are strongly correlated with expanded adiposity, which refers back to the immoderate accumulation of frame fat, and an extended Body Mass Index (BMI). These modifications in frame composition are taken into consideration principal hazard elements for the improvement of cardio metabolic diseases, consisting of hypertension, hyperlipidemia, and cardiovascular disorders. In addition, recurring breakfast skipping can disrupt ordinary glucose metabolism, main to insulin resistance a situation wherein the frame`s cells fail to reply successfully to insulin.

Over time, this metabolic disorder considerably will increase the hazard of growing kind 2 diabetes mellitus and different related complications. Therefore, every day and balanced breakfast intake performs a critical function in retaining ultimate bodily health, cognitive function, and metabolic stability.[18] People who skip breakfast are more likely to be overweight or obese, according to a meta- analysis. According to the study, skipping breakfast raises the risk of being overweight or obese for people of all ages, genders, geographical locations, and socioeconomic backgrounds.[20] Several hazard elements predispose people to the dependency of skipping breakfast, thereby compounding the poor fitness results related to abnormal meal patterns. Among these, sociodemographic variables play an enormous role. Research suggests that positive populace agencies are greater prone to breakfast skipping because of lifestyle, social, and

financial influences. For instance, ladies are much more likely to pass breakfast, regularly because of time constraints, frame picture concerns, or weight-reduction plan practices. Similarly, people who smoke generally tend to forget morning meals, likely because of urge for food suppression due to nicotine or abnormal routines.[12] Additionally, lifestyle behaviors such as late-night screen time, night eating syndrome (NES), and irregular sleep schedules significantly increase the likelihood of skipping breakfast, thereby worsening sleep quality.[6] Students—specifically the ones from decrease socio-monetary backgrounds are regularly mentioned to forgo breakfast. This conduct can also additionally stand up from different factors along with economic constraints, constrained dietary awareness, and academically traumatic schedules that limited time for morning meals.

Such sociodemographic disparities underscore the significance of addressing breakfast-skipping behaviors via centered interventions and academic efforts. Understanding the affiliation among skipping breakfast, sleep quality, sociodemographic variables, and night time ingesting syndrome is consequently critical for growing powerful techniques to sell healthier life-style amongst inclined populations.[12] Overall, skipping breakfast is strongly related to bad effects on each sleep quality and the improvement of Night Eating Syndrome (NES). Irregular morning meal patterns can disrupt circadian rhythms, main to negative sleep hygiene and expanded midnight meals intake. This cycle might also additionally similarly exacerbate metabolic and mental fitness issues. Therefore, ordinary breakfast intake performs a critical function in preserving balanced consuming behaviors and healthful sleep styles.

METHODOLOGY

Study Design

The study was a Cross-sectional study.

Sampling Technique

The sampling technique was Non-Probability Convenience Sampling. The sample of the study selected through universities in Karachi including Indus University and Karachi Medical and Dental college

Outcome Measures

The two outcome measure tools were used in this research study. Night Eating Questionnaire used to assess Night Eating Syndrome and Pittsburgh Sleep Quality Index to evaluate Sleep Quality.

DATA ANALYSIS

Data analysis was performed using SPSS software. Graphic measurements, such as means and standard deviations, were used to account for quantitative factors. To determine any importance association between subjective variables, the Chi-square test was used. (A P-value of 0.05 is considered enormous).

Ethical Considerations

Ethical approval for this study was obtained from the institutional review board of the respective universities involved. All participants were clearly informed about the purpose, procedures, and voluntary nature of the research before data collection. Participation was completely voluntary, and students were given the option to withdraw at any point without any consequences. Written informed consent was obtained from each participant, and anonymity and confidentiality of the data were strictly maintained. The data collected was stored securely and used solely for academic research purposes. The study involved no physical or psychological risk to the participants and did not interfere with their academic or personal activities. There were no conflicts of interest declared by the researchers.

Reliability

To ensure the reliability of the data collection tools, the internal consistency of the two standardized questionnaires, Night Eating Questionnaire (NEQ) and Pittsburgh Sleep Quality Index (PSQI), was evaluated using Cronbach's alpha through SPSS software. A Cronbach's alpha value between 0.70–0.79 is considered acceptable,0.80–0.89 indicates good internal consistency, and 0.90 or above is regarded as excellent. In this study, both NEQ and PSQI demonstrated satisfactory reliability scores, confirming that the items within each scale were internally consistent and dependable for assessing night eating behaviors and sleep quality, respectively, in the university student population.

RESULTS AND FINDINGS

Introduction

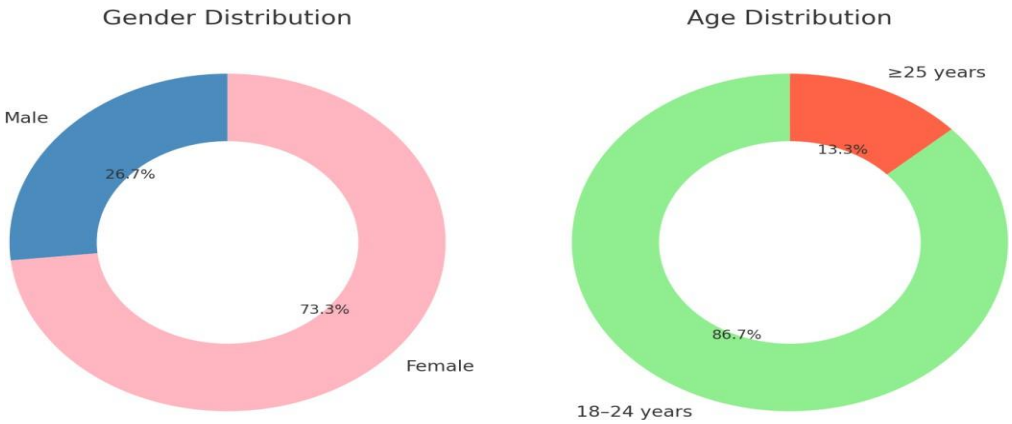
This chapter presents the results of the cross-sectional study conducted among 165 undergraduate students from various universities in Karachi. The data was analyzed using SPSS (Statistical Package for Social Sciences), with descriptive and inferential statistics applied to assess associations between breakfast skipping and demographic, health, and behavioral variables.

Sociodemographic Characteristics of Respondents:

The table 1 shows the demographic profile of the study participants shows a significant predominance of female respondents, comprising 73.3% (n=121) of the total sample, while male participants accounted for only 26.7% (n=44). In terms of age distribution, the majority of individuals were between 18 and 24 years old, representing 86.7% (n=143) of the sample population. Conversely, only 13.3% (n=22) were aged 25 years or older.

Table 1 Distribution of Participants by Age and Gender (n = 165)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	44	26.7%
	Female	121	73.3%
Age	18–24 years	143	86.7%
	≥25 years	22	13.3%



Prevalence of Breakfast Skipping

The distribution of respondents based on their breakfast consumption habits. A majority of participants, 57.6% (n=95), reported that they skip breakfast, while 42.4% (n=70) stated that they do not skip breakfast. This indicates a concerning trend where more than half of the individuals surveyed engage in the habit of skipping breakfast, which could have potential implications for their overall health and nutritional well-being.

Table 2 Prevalence of Breakfast Skipping Among Respondents

Skipping Breakfast	Frequency (n)	Percentage (%)
Yes	95	57.6%
No	70	42.4%

Figure 1 Distribution of Participants by Age and Gender (n = 165)

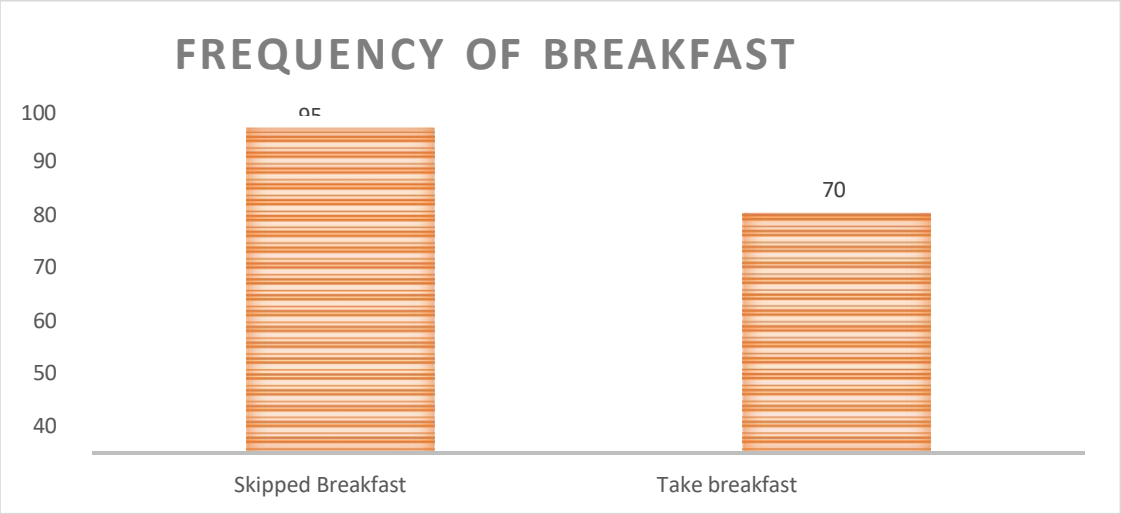


Figure 2 Prevalence of Breakfast Skipping & Taking Breakfast

Association Between Gender and Breakfast Skipping

Table 3 Cross-tabulation of Gender and Breakfast Skipping

Gender	Skipping Breakfast	Not Skipping Breakfast	Total (n)
Male	29 (65.9%)	15 (34.1%)	44

Female	66 (54.5%)	55 (45.5%)	121

Chi-square Test: $\chi^2 = 1.83$, **p = 0.176**

The table 3 presents the association between gender and breakfast skipping behavior among a total of 165 participants, comprising 44 males and 121 females. Among the male participants, 65.9% (29 out of 44) reported skipping breakfast, while 34.1% (15 out of 44) did not. In contrast, among the female participants, 54.5% (66 out of 121) skipped breakfast, whereas 45.5% (55 out of 121) reported not skipping it. To determine whether the observed differences in breakfast- skipping behavior between males and females were statistically significant, a chi-square test was conducted. The results yielded a chi-square value (χ^2) of 1.83 with a p-value of 0.176. Since the p- value is greater than the commonly accepted significance threshold of 0.05, the difference is not considered statistically significant. This indicates that, within this sample, gender does not have a significant influence on whether individuals skip breakfast or not.

Association Between Age and Breakfast Skipping:

Table 4 Cross-tabulation of Age Group and Breakfast Skipping

Age Group	Skipping Breakfast	Not Skipping Breakfast	Total (n)
18–24 yrs	83 (58.0%)	60 (42.0%)	143
≥25 yrs	12 (54.5%)	10 (45.5%)	22

Chi-square Test: $\chi^2 = 0.08$, **p = 0.775**

The table 4 shows the relationship between different age groups and the habit of skipping breakfast among the participants. In the younger age group of 18 to 24 years, 58.0% (83 out of 143) reported skipping breakfast, while 42.0% (60 out of 143) did not. Among participants aged 25 years and older, 54.5% (12 out of 22) skipped breakfast, and 45.5% (10 out of 22) did not. A chi-square test was performed to assess whether there was a significant association between age group and breakfast skipping. The test resulted in a chi-square value of 0.08 and a p-value of 0.775. Since the p-value is much higher than the standard significance level of 0.05, the difference in breakfast skipping behavior between the two age groups is not statistically significant. Therefore, age group does not appear to have a meaningful effect on whether individuals skip breakfast in this sample.

Association Between Sleep Duration and Breakfast Skipping:

Table 5 Sleep Duration and Breakfast Skipping Behavior

Sleep Duration	Skipping Breakfast	Not Skipping Breakfast	Total (n)
<6 hours	21 (77.8%)	6 (22.2%)	27

6–8 hours	55 (52.9%)	49 (47.1%)	104
>8 hours	19 (55.9%)	15 (44.1%)	34

Chi-square Test: $\chi^2 = 9.27$, **p = 0.009**

The table 5 illustrates the relationship between sleep duration and breakfast skipping behavior among the participants. Among those who sleep less than 6 hours, a high proportion of 77.8% (21 out of 27) reported skipping breakfast, while only 22.2% (6 out of 27) did not skip it. Participants who slept between 6 and 8 hours had a lower rate of breakfast skipping, with 52.9% (55 out of 104) skipping breakfast and 47.1% (49 out of 104) not skipping. Similarly, those who slept more than 8 hours showed a skipping rate of 55.9% (19 out of 34) and a non-skipping rate of 44.1% (15 out of 34). A chi-square test was conducted to examine the association between sleep duration and breakfast skipping, yielding a chi-square value of 9.27 and a p-value of 0.009. Since the p-value is less than the conventional significance level of 0.05, this indicates a statistically significant association between sleep duration and breakfast skipping behavior. Specifically, individuals with shorter sleep durations are more likely to skip breakfast compared to those with longer sleep durations.

Association Between Physical Activity and Breakfast Skipping:
Table 6 Physical Activity and Breakfast Skipping

Physical Activity	**Skipping Breakfast**	**Not Skipping Breakfast**	**Total (n)**
Yes (Regular)	29 (49.2%)	30 (50.8%)	59
No	66 (62.3%)	40 (37.7%)	106

Chi-square Test: $\chi^2 = 3.15$, **p = 0.076**

The Table 6 examines the association between physical activity and breakfast skipping behavior among the participants. Of those who engage in regular physical activity, 49.2% (29 out of 59) reported skipping breakfast, while 50.8% (30 out of 59) did not. In contrast, among participants who do not engage in regular physical activity, a higher percentage—62.3% (66 out of 106)— skipped breakfast, whereas 37.7% (40 out of 106) did not skip it. A chi-square test was conducted to determine whether the difference in breakfast skipping between physically active and inactive individuals was statistically significant. The test produced a chi-square value of 3.15 with a p- value of 0.076. Since the p-value is greater than the conventional threshold of 0.05, this difference is not statistically significant. Therefore, although there is a trend suggesting that individuals who are physically inactive may be more likely to skip breakfast, the association between physical activity and breakfast skipping is not significant in this sample.

Association Between BMI and Breakfast Skipping:

Table 7 BMI Categories and Breakfast Skipping

BMI Category	Skipping Breakfast	Not Skipping Breakfast	Total (n)
Underweight	8 (66.7%)	4 (33.3%)	12
Normal	56 (54.4%)	47 (45.6%)	103
Overweight	23 (60.5%)	15 (39.5%)	38
Obese	9 (75.0%)	3 (25.0%)	12

Chi-square Test: $\chi^2 = 4.29$, **p = 0.232**

The Table 7 explores the association between different BMI categories and breakfast skipping behavior among the participants. In the underweight group, 66.7% (8 out of 12) reported skipping breakfast, while 33.3% (4 out of 12) did not. Among those with a normal BMI, 54.4% (56 out of 103) skipped breakfast, and 45.6% (47 out of 103) did not. Participants classified as overweight had a breakfast skipping rate of 60.5% (23 out of 38), with 39.5% (15 out of 38) not skipping. In the obese category, 75.0% (9 out of 12) skipped breakfast, whereas 25.0% (3 out of 12) did not. A chi-square test was performed to determine if these differences were statistically significant, resulting in a chi-square value of 4.29 and a p-value of 0.232. Since the p-value exceeds the 0.05 threshold, the differences in breakfast skipping across BMI categories are not statistically significant. Thus, BMI category does not appear to be significantly associated with breakfast skipping behavior in this sample.

Association Between NES and Breakfast Skipping

Table 8 Association Between Night Eating Syndrome (NES) and Breakfast Skipping

Night Eating Syndrome	Skipping Breakfast	Not Skipping Breakfast	Total (n)
Yes (With NES)	25 (73.5%)	9 (26.5%)	34
No (Without NES)	70 (51.9%)	65 (48.1%)	135
Total	95	74	169

Chi-square Test: $\chi^2 = 5.21$, **p = 0.022**

Table 8 presents the association between Night Eating Syndrome (NES) and breakfast skipping behavior among the study participants. Among individuals diagnosed with NES, 73.5% (25 out of 34) reported skipping breakfast, while only 26.5% (9 out of 34) did not. In comparison, among those without NES, 51.9% (70 out of 135) skipped breakfast, and 48.1% (65 out of 135) consumed breakfast regularly. A chi-square test was conducted to evaluate the statistical significance of this association, resulting in a chi-square value of 5.21 and a p-value of 0.022. Since the p-value is below the conventional significance threshold of 0.05, the association is considered statistically significant. These findings suggest that participants with Night Eating Syndrome are significantly more likely to skip breakfast compared to those without NES, indicating a potential behavioral link between night eating patterns and breakfast omission.

Reported Reasons for Skipping Breakfast:

Table 9 Self-Reported Reasons for Skipping Breakfast

Reason	**Frequency (n)**	**Percentage (%)**
Lack of time	46	48.4%
No appetite in the morning	30	31.6%
Weight control concerns	12	12.6%
Habitual/other	7	7.4%

Table 9 shows the reasons for skipping the breakfast in which its said that,48.4%individual omit their first meant due to lack of time while,31.6 %personnel reported as having no appetite in the morning. On the other hand students may skip their breakfast due to their weight concerns and 7,4 % as habitual trend. Figure below is illustration in terms of chart.

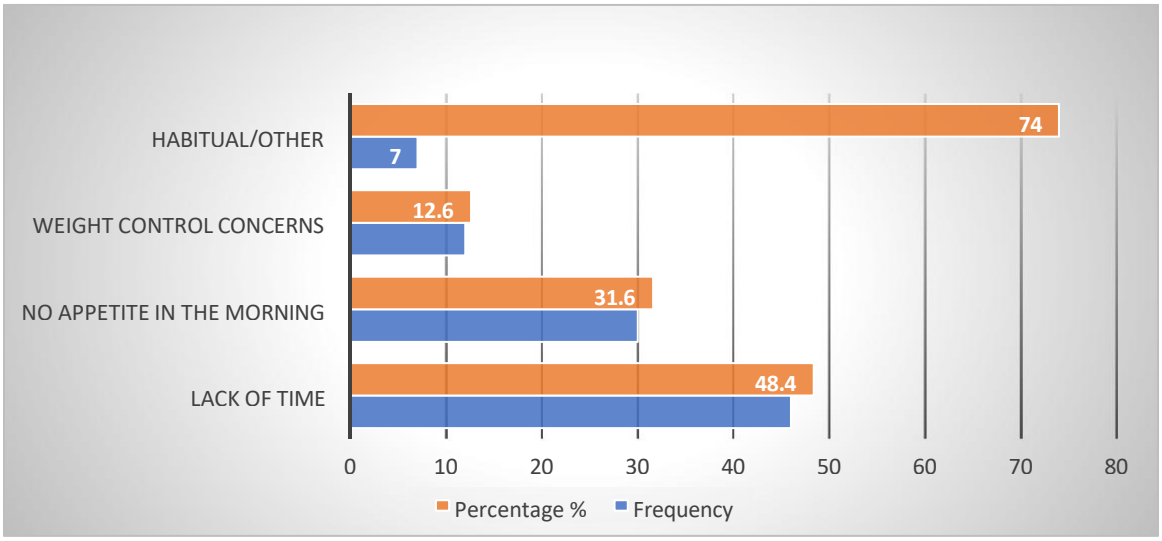


Figure 3 Self-Reported Reasons for Skipping Breakfast

This figure presents the self-reported reasons for skipping breakfast among the participants of the study. The most frequently cited reason was lack of time, reported by 46 individuals, accounting for 48.4% of the total responses. This indicates that nearly half of the participants who skip breakfast do so primarily because they feel they do not have enough time in the morning. The second most common reason was no appetite in the morning, reported by 30 participants (31.6%), suggesting that a significant portion of individuals simply do not feel hungry early in the day. Weight control concerns were cited by 12 participants (12.6%), reflecting that some individuals intentionally skip breakfast as part of efforts to manage or reduce body weight. Lastly, habitual or other reasons were mentioned by 7 participants (7.4%), representing a smaller group whose reasons for skipping breakfast may include established routines or other personal factors not categorized in the main responses.

STUDY LIMITATIONS

This study is subject to several limitations that should be considered when interpreting the findings. Firstly, the cross-sectional design limits the ability to establish causal relationships between breakfast skipping and associated variables such as sleep quality, Night Eating Syndrome, and socio-demographic factors. Secondly, the use of non-probability convenience sampling may introduce sampling bias, thereby limiting the generalizability of the results to the broader student population. The study was confined to students from selected universities in Karachi, restricting its applicability to other geographical regions or educational institutions. Additionally, data collection relied on self-reported questionnaires to assess dietary behavior, sleep patterns, and night eating habits. Such measures are inherently prone to recall bias and social desirability bias, potentially affecting the accuracy and reliability of the responses. The focus on university students within a specific academic and cultural context further narrows the scope of generalizability to all young adult populations. Lastly, the study's relatively short duration may not capture seasonal or situational variations in breakfast behavior and sleep quality over time.

RECOMMENDATIONS FOR FUTURE RESEARCH

Future research should employ longitudinal study designs to assess the long-term effects of breakfast skipping on health outcomes and to determine whether consistent morning eating habits can improve sleep quality and reduce Night Eating Syndrome behaviors. Incorporating objective assessment tools, such as actigraphy-based sleep trackers and dietary intake logs, could enhance data accuracy and mitigate the limitations associated with self-reported measures. Additionally, conducting multi-center studies involving diverse student populations across various academic institutions and disciplines would improve the generalizability of findings. The inclusion of qualitative methods, such as in-depth interviews or focus group discussions, may provide deeper insights into the underlying motivations and psycho-social factors influencing breakfast skipping behavior. From an institutional perspective, universities are encouraged to foster supportive environments by offering accessible, nutritious breakfast options on campus and by integrating time management and nutritional education into student life and wellness programs.

CONCLUSION

The study concludes that breakfast skipping is significantly associated with sociodemographic characteristics, night eating behaviors, and sleep quality among university students. Participants who regularly skipped breakfast were more likely to report poor sleep quality, irregular nighttime eating patterns, and lifestyle-related stressors. These findings affirm that breakfast skipping is not an isolated behavior, but rather part of a broader pattern involving disrupted sleep and disordered eating habits. While most null hypotheses were rejected, certain variables, such as marital status showed no significant association, underscoring the complex and multifactorial nature of eating behaviors. The results emphasize the need for targeted interventions and policy strategies aimed at promoting regular breakfast consumption and healthier lifestyle practices among students, thereby supporting both their physical and mental well-being.

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