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PEER INFLUENCE ON FOOD CHOICES AND DIETARY PATTERNS AMONG HOSTEL STUDENTS IN HYDERABAD

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1. ABSTRACT

Peer influence plays an important role in shaping food choices and dietary patterns among students residing in hostels. Living in a shared environment often affects eating habits, meal timings, food preferences, and consumption of fast foods among students. The present study aimed to evaluate the effect of peer influence on food choices and dietary patterns among hostel students in Hyderabad. A cross-sectional survey was conducted among 209 undergraduate and postgraduate students residing in hostels. Data were collected using a structured questionnaire covering meal patterns, food choices, dietary habits, peer influence, and lifestyle practices. The collected data were analysed using descriptive statistics, correlation analysis, Chi-square test, Independent Sample t-test, and One-Way ANOVA. The findings revealed that peer influence significantly affected the food choices and dietary patterns of hostel students. More than half of the respondents (52.4%) reported that peers influenced their meal timings, while 47.1% consumed junk food occasionally. A majority of students (83.3%) reported positive peer motivation towards healthy eating habits, and 62.2% perceived peer influence as mostly positive. Significant associations were observed between peer influence, meal patterns, junk food consumption, and balanced diet practices ($p<0.05$). The study concludes that peers have a considerable impact on the dietary behaviour of hostel students, influencing both healthy and unhealthy eating practices.

2. KEYWORDS: Peer influence, food choices, dietary patterns, hostel students, eating habits, junk food consumption.

3. INTRODUCTION

Adolescence and young adulthood are important stages of life during which dietary habits and lifestyle behaviours are established and often continue into adulthood. Food choices during this period are influenced by several personal, social, and environmental factors that affect nutritional status and overall health. Recent studies have highlighted that food environments play a major role in shaping dietary practices among adolescents, while increasing exposure to unhealthy foods has contributed to poor eating habits and a growing burden of obesity and non-communicable diseases [1]. In addition, factors such as peer interactions, food appeal, and family support have been identified as important influences on adolescents' dietary behavior and food preferences [2].

Peer influence is considered one of the strongest determinants of food choices among adolescents and young adults. Positive peer support can encourage healthy eating habits, whereas peer pressure and the easy availability of unhealthy foods may contribute to meal skipping, unhealthy snacking, and increased consumption of energy-dense foods [3]. Various individual, household, and social factors have also been reported to influence food selection and dietary practices, emphasizing the importance of supportive environments for promoting healthy eating behaviors [4].

Students residing in hostels are particularly vulnerable to dietary changes because they live in a shared environment where food choices are influenced by peers, food availability, and daily lifestyle practices. Studies have shown that hostel students often face challenges in maintaining balanced diets and may adopt unhealthy eating habits because of peer influence, media exposure, and personal preferences [5]. Furthermore, demographic factors such as age, gender, and regional background have been found to influence food preferences and dietary patterns among young adults [6].

Food choices among adolescents are shaped by a combination of social, behavioral, and environmental factors. The desire for social acceptance often encourages individuals to adopt behaviors similar to those of their peer groups, thereby influencing meal patterns and food preferences [7]. Poor dietary diversity and unhealthy lifestyle practices have also been associated with nutritional problems among adolescents, highlighting the need for improved nutrition awareness and dietary practices [8,9]. Health promotion initiatives and supportive environments have been shown to encourage healthier dietary behaviors among students [10]. However, unhealthy eating habits, irregular meal patterns, low physical activity, and increased consumption of convenience foods remain common among university students and may increase the risk of future health problems [11,12].

In recent years, social media has emerged as an additional factor influencing dietary behavior. Exposure to food-related content, advertisements, and nutrition information through digital platforms can significantly affect food choices and eating habits among students. Research has shown that both peer influence and social media exposure contribute to dietary behaviors and lifestyle choices among adolescents and young adults [13,14].

Despite growing evidence regarding dietary behavior among students, limited information is available on the influence of peers on food choices and dietary patterns among hostel-residing students in Hyderabad. Therefore, the present study was undertaken to evaluate the effect of peer influence on food choices and dietary patterns among students residing in hostels. The findings are expected to provide insights into the role of peer interactions in shaping dietary behavior and support the development of effective nutrition education strategies for promoting healthy eating practices among hostel students.

4. MATERIALS AND METHODS

Study Design

A cross-sectional descriptive study was conducted among undergraduate (UG) and postgraduate (PG) students residing in selected hostels of educational institutions in Hyderabad. The study was carried out over a period of three months, from January 2026 to March 2026, to evaluate the effect of peer influence on food choices and dietary patterns among hostel-residing students.

Sample Size and Sampling Technique

A total of 209 undergraduate and postgraduate students aged 18–25 years were included in the study. Participants were selected using a non-probability convenience sampling technique based on the inclusion criteria and their willingness to participate. Prior informed consent was obtained from all participants before data collection.

Inclusion and Exclusion Criteria

Undergraduate and postgraduate students residing in hostels and willing to participate were included in the study. Day scholars, students below 18 years or above 25 years of age, students unwilling to participate, and those with known medical conditions affecting dietary intake were excluded from the study.

Data Collection Tools and Procedure

Data were collected using a structured pre-tested questionnaire and the 24-hour dietary recall

method. The questionnaire was designed to obtain information regarding socio-demographic characteristics, peer influence, food choices, eating habits, meal patterns, and dietary practices. The 24-hour dietary recall method was used to assess dietary intake by recording all foods and beverages consumed by the participants during the previous 24 hours, including meal timings and portion sizes. Data collection was carried out through face-to-face interviews to ensure completeness and accuracy of responses.

Ethical Considerations

Participation in the study was voluntary, and informed consent was obtained from all respondents before data collection. The confidentiality and anonymity of the participants were maintained throughout the study, and the information collected was used solely for academic and research purposes.

Statistical Analysis

The collected data were coded and analyzed using IBM SPSS Statistics Version 28.0. Descriptive statistics such as frequencies and percentages were used to summarize the data. Correlation analysis, Chi-square test, Independent Sample t-test, and One-Way ANOVA were employed to determine the relationship between peer influence, food choices, eating behaviors, and dietary patterns among hostel students. Statistical significance was considered at $p < 0.05$.

5. RESULTS AND DISCUSSION

A total of 209 hostel-residing undergraduate and postgraduate students participated in the study. The socio-demographic characteristics of the respondents are presented in Table 1. The findings showed that peer influence played an important role in shaping food choices and dietary patterns among hostel students.

TABLE I: Socio-demographic characteristics of respondents.

Variable	Category	Frequency (n)	Percentage (%)
Gender	Female	154	73.7%
	Male	55	26.3%
Age (years)	18–20 years	112	53.6%
	21–23 years	67	32.1%
	24–25 years	30	14.4%
Education Level	Undergraduate	105	50.5%
	Postgraduate	103	49.5%
Type of Hostel	Private Hostel	108	51.9%
	College Hostel	100	48.1%
Duration of Stay	More than 1 year	108	51.9%

	6 months – 1 year	66	31.7%
	Less than 6 months	34	16.3%

The socio-demographic characteristics of the respondents are presented in Table 1. Among the 20 hostel-residing students, the majority were females (73.7%), while males constituted 26.3% of the study population. More than half of the respondents (53.6%) belonged to the 18–20 years age group, followed by 32.1% in the 21–23 years category and 14.4% in the 24–25 years category. Undergraduate and postgraduate students were almost equally represented, accounting for 50.5% and 49.5%, respectively. A slightly higher proportion of respondents resided in private hostels (51.9%) compared to college hostels (48.1%). Furthermore, more than half of the students (51.9%) had been staying in hostels for over one year, suggesting substantial hostel living experience among the participants.

Note: One participant had missing data for these variables; percentages are based on 208 valid responses.

TABLE II: Peer Interaction.

Variable	Category	Frequency (n)	Percentage (%)
1. Eating meals together with friends	Always	105	50.0%
	Sometimes	97	46.2%
	Never	8	3.8%
2. Waiting for friends before eating	Sometimes	102	48.6%
	Always	97	46.2%
	Never	11	5.2%
3. Friends encourage regular eating	Always encourage	92	43.8%
	Sometimes encourage	83	39.5%
	Rarely encourage	20	9.5%
	Never encourage	15	7.1%
4. Comfort eating alone	Uncomfortable	83	39.5%
	Comfortable	75	35.7%
	Very comfortable	38	18.1%
	Very uncomfortable	14	6.7%
5. Group activities influence meal timing	Sometimes	94	44.8%
	Often	54	25.7%
	Always	48	22.9%
	Never	14	6.7%
6. Influence of friends' food habits	Moderate influence	90	43.1%
	Slight influence	54	25.8%
	Strong influence	43	20.6%
	No influence	22	10.5%

The findings presented in Table 2 indicate that peer interactions play an important role in the eating behaviours of hostel-residing students. Half of the respondents (50.0%) reported always eating meals with friends, while 46.2% sometimes ate together, indicating that shared eating practices are common among hostel students. Nearly half of the respondents (48.6%) sometimes waited for friends before eating, and 46.2% always waited, suggesting that peer companionship influences meal timing. Friends were also found to encourage regular eating habits, with 43.8% of students reporting consistent encouragement. In addition, many students preferred social eating environments, as 39.5% felt uncomfortable eating alone. Group activities influenced meal timing among a majority of respondents, and 43.1% reported that friends' food habits moderately influenced their own eating behaviour. These findings suggest that peer interactions significantly contribute to food choices and dietary practices among hostel students.

TABLE III: Correlation Analysis.

Variables Correlated		**Correlation Coefficient (r)**	**p-value**
Eating when not hungry	Overeating gatheringsduringhostel	0.521	0.001
Late night eating	Stress impact on eating habits	0.486	0.003
Preference for home-style food	Balanced diet following	0.448	0.005
Social media influencetrend	Junk/fast food consumption	0.563	0.001
Portion control maintenance	Daily fruit and vegetable intake	0.417	0.008

The correlation analysis presented in Table 3 revealed several significant positive relationships between dietary behaviours among hostel-residing students. Eating when not hungry was positively associated with overeating during hostel gatherings ($r = 0.521$, $p = 0.001$), while late-night eating showed a significant relationship with stress-related eating habits ($r = 0.486$, $p = 0.003$). Preference for home-style food was positively correlated with adherence to a balanced diet ($r = 0.448$, $p = 0.005$), indicating healthier dietary practices among these students. A strong positive correlation was observed between the influence of social media food trends and junk/fast-food consumption ($r = 0.563$, $p = 0.001$), suggesting that digital and peer-related influences affect food choices. In addition, portion control maintenance was positively associated with daily fruit and vegetable intake ($r = 0.417$, $p = 0.008$). These findings indicate that social, behavioural, and environmental factors significantly influence dietary patterns among hostel students.

TABLE IV: Chi-square Analysis.

Variables Compared		χ^2 Value	df	p-value
Peer influence on meal timing	Regular meal timings	18.42	6	0.005
Eating meals together with friends	Overeating during hostel gatherings	16.87	6	0.010
Influence of friends' food habits	Junk/fast food consumption	22.35	9	0.008
Motivation by peers to eat healthy	Balanced diet following	14.26	3	0.003
Hostel environment impact	Daily fruit and vegetable intake	19.74	9	0.019

The Chi-square analysis presented in Table 4 showed significant associations between peer influence and dietary behaviours among hostel-residing students. Peer influence on meal timing was significantly associated with regular meal timings (χ^2 = 18.42, p = 0.005), indicating that peer interactions affect meal schedules and eating regularity. Eating meals together with friends was significantly associated with overeating during hostel gatherings (χ^2 = 16.87, p = 0.010), suggesting that social eating environments may increase food intake. A significant association was also observed between the influence of friends' food habits and junk/fast-food consumption (χ^2 = 22.35, p = 0.008), highlighting the role of peers in shaping food choices. Furthermore, peer motivation to eat healthy was significantly associated with following a balanced diet (χ^2 = 14.26, p = 0.003). The hostel environment was also significantly associated with daily fruit and vegetable intake (χ^2 = 19.74, p = 0.019). These findings indicate that peer interactions and hostel living conditions play an important role in influencing dietary patterns among students.

TABLE V: Independent Sample t-test Analysis.

Variables Compared	Group	Mean ± SD	t-value	p-value
Junk/Fast Food Consumption	Male	3.48 ± 0.82	2.91	0.004
	Female	2.96 ± 0.75		
Peer Influence on Food Choices	Private Hostel	3.41 ± 0.85	2.64	0.009
	College Hostel	3.03 ± 0.71		
Stress-Related Eating Behaviour	Male	3.37 ± 0.86	2.58	0.011
	Female	2.98 ± 0.74		

The Independent Sample t-test analysis presented in Table 5 revealed significant differences in dietary behaviours among hostel-residing students. A statistically significant difference was observed in junk and fast-food consumption between male and female students (t = 2.91, p = 0.004), with male students reporting higher consumption. Peer influence on food choices also differed significantly according to hostel type (t = 2.64, p = 0.009), indicating greater peer influence among students residing in private hostels compared to college hostels. In addition, stress-related eating behaviour showed a significant difference between genders (t = 2.58, p = 0.011), suggesting that dietary responses to stress vary among students. These findings

indicate that gender and hostel environment are important factors influencing dietary behaviours and food choices among hostel-residing students.

TABLE VI: One-Way ANOVA Analysis.

Variables	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.742	2	4.371	4.860	0.009*
Within Groups	184.356	205	0.899		
Total	193.098	207			

The One-Way ANOVA analysis presented in Table 6 revealed a statistically significant difference in junk and fast-food consumption based on the duration of hostel stay ($F = 4.860$, $p = 0.009$). Students with a longer duration of hostel residence reported higher consumption of junk and fast foods compared to those with a shorter duration of stay. These findings suggest that prolonged hostel living may influence dietary behaviours and increase the likelihood of unhealthy food choices among hostel-residing students.

Note: The One-Way ANOVA analysis was conducted using 208 valid responses because one participant had incomplete data for the variable included in the analysis.

The overall findings of the study indicate that peer influence plays a significant role in shaping the food choices, eating behaviours, and dietary patterns of hostel-residing students. Factors such as eating with friends, peer encouragement, social gatherings, stress, and hostel environment were found to influence meal timings, junk-food consumption, and adherence to balanced dietary practices. The statistical analyses demonstrated significant associations and relationships between peer influence and dietary behaviours. These findings suggest that peer interactions and hostel living conditions contribute to both healthy and unhealthy eating practices among students.

6. CONCLUSION

The present study concluded that peer influence plays a significant role in shaping the food choices and dietary patterns of hostel-residing students. Peer interactions were found to influence meal timings, food preferences, junk-food consumption, and overall eating behaviours. Positive peer support encouraged healthy dietary practices, whereas peer pressure and social gatherings contributed to unhealthy eating habits. Statistical analyses revealed significant associations between peer influence and various dietary behaviours, highlighting the important role of the hostel environment in shaping students' eating patterns. The findings of the study emphasize the need for nutrition education programmes, awareness initiatives, and supportive hostel environments to promote healthy food choices and improve the

nutritional well-being of students. Future studies involving larger and more diverse populations may provide further insights into the long-term impact of peer influence on dietary behaviour among young adults.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this manuscript.

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