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Assessment of Dietary Habits among Male Medical Students Residing in Hostels at Ameer-Ud-Din Medical College: A Cross-Sectional Study, Lahore 2023

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ABSTRACT

Background: Diet strongly affects the overall health of an individual. Medical students are expected to have good dietary habits. The diet of medical students living in hostels is often compromised. **Objective:** To assess the dietary habits of hosteller male medical students of Ameer-Ud-Din Medical College in relation to demographics. **Study Design:** Cross-sectional comparative study. **Settings:** Boys' hostels of Ameer-Ud-Din Medical College, Lahore Pakistan. **Duration:** Six months after approval by ethical review board. **Methods:** 79 hostel residing male medical students for two months after ethical clearance. Data collected by the researcher using proforma having demographics and dietary habits' variables. The Chi square test used for seeing the relation of students' eating habits with demographics taking P value of < 0.05 as significant. **Results:** Out of a total of 79 students, 26.6% were second year MBBS students. Those having a monthly family income of ≥ 50,000 rupees were 79.7% and 78.5% of the students had non-working mothers. Only 19% had home cooked meals supplied by vendors daily while 43% of the students ate out daily. Only 21.5% had breakfast daily. Daily consumption of roti/bread was by 79.5% of participants, rice (any form) consumption was by 2.5%, daily meat/chicken by 12.7% and daily vegetables and fruits by only 2.5% of the participants. Chi square value was not significant for eating habits with demographic variables like monthly household income and mothers' employment status. **Conclusion:** Majority of the students did not have breakfast in morning and ate out daily. Only few had home cooked meals, fruits and vegetables daily. Demographics had no significant relation with students' eating habits.

Keywords: *Dietary habits, Male, Medical students, Hostel.*

INTRODUCTION

Diet refers to the total amount of food consumed by individuals.[1] A healthy diet comprises a combination of different foods. These include staples like cereals (wheat, barley, rye, maize, or rice) or starchy tubers or roots (potato, yam, taro or cassava), legumes (lentils and beans), fruit and vegetables and foods from animal sources (meat, fish, eggs and milk).[2] Unhealthy dietary trends include the consumption of excessive amounts of energy-dense, nutrient-poor foods with high sugars, saturated fats, Trans fats, salt, and lesser than the recommended portions of fruits, vegetables, and whole grains.[3] A strong connection exists between dietary habits and the wellbeing of an individual and is well acknowledged as optimal health hinges on adequate nutrition.[4] Healthy diet is the one comprised of adequate portions of macro and micronutrients to support the physiological needs of human body.[5] Nowadays, the benefits of healthy diet and nutritional knowledge tend to affect dietary behaviors among medical personnel.[6] Medical students are thought to have a better knowledge of healthy dietary practices but the translation of this knowledge to practice can be daunting for some.[7] Being more in touch with health-related information and continuously being exposed to diseased individuals during ward and outpatient department visits, medical students are expected to be health conscious and more

careful about healthy eating. At the same time, living away from home and in hostels or boarding setups may affect the availability of healthy food to the medical students contributing to unhealthy eating habits. Unhealthy dietary habits acquired during medical school may persist over time affecting the physicians' abilities to deliver effective nutritional guidance to their patients.[8] A study conducted among medical students at King Abdulaziz University (KAU), Jeddah, Saudi Arabia in 2020 reported that only 20.4% of students ate vegetables daily and 11.9% ate fruits daily, with high fast-food intake.[9] Similarly, a study among medical students from Lahore compared healthy and unhealthy lifestyle demonstrating second year MBBS students with most unhealthy lifestyle and fourth year MBBS students with healthy lifestyle.[10] Moreover, students also reported eating less healthy foods due to financial constraints and limited free time.[11] A study done in Lahore revealed central obesity in 46% of male and 31.4% of female students. Central obesity was associated with a higher total daily caloric intake.[12] Despite this, there is a notable absence of research that targets dietary habits among medical students in Lahore, Pakistan, particularly those staying in hostels.

Rationale: This study is designed to fill the informational void by investigating dietary habits of hostel residing male medical students at Ameer-Ud-Din Medical College, Lahore.

Objective: To assess the dietary habits of male medical hostelers in relation to demographics at Ameer- Ud-din Medical College, Lahore.

Operational Definitions: Dietary habits will include home cooked meals' consumption, eating out pattern, breakfast, use of roti/bread, rice (any form), daily meat/chicken, vegetables and fruits' consumption.

METHODS

This cross-sectional study was conducted at Ameer-Ud-Din Medical College, Lahore Pakistan. The duration of the study was 2 months from December 17, 2023, to February 16, 2024 vide ERB No: 00-27-A-2023. Convenience sampling technique was used. A sample size of 79 was calculated using total population as 98, proportion as 50%, margin of error as 5% and confidence level of 95%. Sample size was calculated using the formula, $= \frac{NZ^2P(1-P)}{d^2(N-1)+Z^2P(1-P)}$, where n= sample size, N= population size, Z= level of confidence, P= expected prevalence, d= precision (corresponding to effect size).[13]

Male medical students residing in hostels studying at Ameer Uddin Medical College except those students diagnosed with a chronic illness or on a prescribed medication and students not giving consent.

Data was gathered form 79 hostel resident male medical students for two months after ethical clearance at Ameer ud Din Medical College. Data was gathered by the researcher using proforma having demographics and dietary habits variables with 100% response rate.

Frequencies and percentages were calculated for demographic variables like year of study, categories for monthly household income in rupees and mothers' employment status and dietary habits. Chi square test was used for seeing the relationship between dietary habits and demographic variables like monthly household income and mothers' employment status with a p value of < 0.05 as significant.

RESULTS

Out of a total of 79 students, maximum participation of 21(26.6%) was shown by second year students and least participation of 8 (10.1%) by final year students. 63 (79.7%) of the students had a monthly family income of ≥ 50,000 rupees and 62(78.5%) of them had mothers who were housewives. (Table 1)

Table 1: Socio-Demographics

Variables		Frequency (N)	Percent (%)
Year of Study	First	18	22.8%
	Second	21	26.6%
	Third	13	16.5%
	Fourth	19	24.1%
	Final	8	10.1%
	Total	79	100%
Mother's Work Status	Housewife	62	78.5%
	Working	17	21.5%
	Total	79	100%
Monthly Family Income in Rupees	Less than 50,000	16	20.3%
	50,000 to 100,000	28	35.4%
	100,000 to 150,000	19	24.1%
	More than 150,000	16	20.3%
	Total	79	100%

Only 15(19%) had home cooked meals daily, supplied by vendors who cooked home meals on demand, while 44(55.7%) had 2 to 3 times a week only. Daily eating out was observed by the majority 34(43%) of the students. Only 17(21.5%) of the students had breakfast daily. Roti/bread daily consumption was by 60(79.5%) participants. Daily rice (any form) consumption was by only 2(2.5%), daily meat/chicken by 10(12.7%) and daily vegetables and fruits by only 2(2.5%). Food was purchased from restaurants by those who ate from

outside. Chi square value was not significant for eating habits tabulated against demographic variables like monthly household income and mothers' employment status. (Table 2)

Table 2: Dietary Habits

Variables		Frequency (N)	Percentage (%)
Home Cooked Meals	Daily	15	19.0%
	4-6 times a week	13	16.5%
	2-3 times a week	44	55.7%
	Once a week or less	7	8.9%
	Total	79	100%
Eating Out	Daily	34	43.0%
	4-6 times a week	14	17.7%
	2-3 times a week	14	17.7%
	Once a week or less	17	21.5%
	Total	79	100%
Breakfast	Daily	17	21.5%
	4-6 times a week	30	38.0%
	2-3 times a week	20	25.3%
	Once a week or less	12	15.2%
	Total	79	100%
Roti / Bread	Daily	60	75.9%
	4-6 times a week	4	5.1%
	2-3 times a week	1	1.3%
	Once a week or less	14	17.7%
	Total	79	100%
Rice (Any Form)	Daily	2	2.5%
	4-6 times a week	38	48.1%
	2-3 times a week	24	30.4%
	Once a week or less	15	19.0%
	Total	79	100%
Meat / Chicken	Daily	10	12.7%
	4-6 times a week	35	44.3%
	2-3 times a week	11	13.9%
	Once a week or less	23	29.1%
	Total	79	100%
Vegetables / Fruits	Daily	2	2.5%
	4-6 times a week	46	58.2%
	2-3 times a week	15	19.0%
	Once a week or less	16	20.3%
	Total	79	100%

DISCUSSION

A total of 79 students from the first year to final year were enrolled in the study. Most of the students did not have healthy eating habits such as eating home cooked meals and having breakfast. This was also observed in another similar study in which majority of students' eating choices were determined by convenience rather than health concerns.[11] 62 (78.5%) of students had mothers who were housewives. This factor was kept in mind as previous studies have shown a relationship between mothers' professions and children's eating habits. In one such study it was found that mothers' work hours were positively correlated with children's weight and obesity.[14] The monthly household income of 16 of the students was less than 50,000 rupees, 47 had a monthly household income between 50,000 to 150,000 rupees and 16 had a monthly household income above 150,000 rupees. This factor was considered as monthly household income has a direct bearing on purchase of food items.[15] In another study, most students had a monthly allowance of less than 34 US dollars, and the majority had only two meals a day and skipped breakfast.[16] Only 19% of the students were able to have home cooked meals daily. Home cooked meals are considered safer and more hygienic as compared to meals purchased from outside.[17] Having breakfast is considered a healthy dietary habit.[18] According to the research findings, only 21.5% of the students had breakfast daily while 15.2% had it once a week or less. According to another study amongst adolescents 38.6% of participants never or irregularly had breakfast.[19] 43% of the students ate out daily. Eating out has been associated with adverse health effects.[20] In a study in Malaysia, 74.4% of the students chose rice and 7.5% preferred bread compared to current study findings with use of roti or bread by 75.9% on daily basis and rice by only 2.5%.[16] While 12.7% had meat or chicken daily which is lower than 20.3% of the student's daily meat consumption findings of another study.[21]

CONCLUSION

Majority of the students did not have breakfast in morning and ate out daily. Only a few had home cooked meals, fruits and vegetables daily. Demographics have no significant relation to students' eating habits.

LIMITATIONS

Financial constraints otherwise could have been designed including all public sector medical college boys hostel resident students.

SUGGESTIONS / RECOMMENDATIONS

This study should be performed amongst all public health medical college students to explore the predictors of

unhealthy dietary trends among hostel-resident male medical students.

CONFLICT OF INTEREST / DISCLOSURE

None.

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