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Original Article

Assessment of Lifestyle and Dietary Habits and its Effect on Psychological Health Among University Students

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ABSTRACT

Admission to the university is a new stage in a student's life that is typically related with freedom, jovial activities, and lifestyle changes and behavior entailing eating habits. **Objective**: To look into university students' lifestyles and significant dietary habits. **Methods**: A Cross-Sectional study was conducted at the University of Lahore for a 4-month duration with a sample size of 100 students by using Global sleep assessment questionnaire (GSAQ) and Kessler Psychological Distress Scale (K10). **Results**: Analysis of the students' dietary habits held between 50-day scholars and 50 hostelites, revealed the adoption of several undesired dietary habits. 10% of hostelites are underweight while in comparison percentage of day scholar is 5% less, 34% are normal, 7% overweight and 4% are obese in contrast of hostelites whose percentages are 32%, 5% and 3% respectively. The percentage of daily meal consumption is higher that of hostelites. 28% of day scholars were having snacks while 29% of hostelites were having snacks. **Conclusions**: This study revealed the challenges that university students experience in maintaining a healthy lifestyle nutritionally, especially when they live in hostels.

INTRODUCTION

The time spent at university is a vital time period that may impact one's lifestyle quality and eating habits and one's health as an adult in the long run [1]. Though, in the face of the financial restrictions that many reports, the university time period also includes stressors for students attempting to accomplish achievement in their academic ambitions [2]. As students' progress from secondary school to university and gain independence, they are continuously pushed to make healthy dietary choices. Such a transition into early adulthood is typically characterized by an unhealthy lifestyle, during which young people may develop long-term health behaviors [3]. College students, in particular, are exposed to poor eating behaviors that contribute to body weight increase [4], and they choose their own meal choices, which are sometimes influenced by the cost of food and the availability of fast food [3]. For a variety of reasons, university populations are susceptible in their dietary habits. Students' understanding of healthy food options may be lacking, which may have a detrimental impact on their eating habits [4, 5]. Financial considerations may also play a role, as fats and sweets are less expensive [6]. It has been stated that academic success in school and higher education is influenced by one's well-being. As a result, improving the health and well-being of all members of a university or college entails fostering successful learning [7-9]. Psychological morbidity is frequent among students, and it is particularly noticeable among basic science students and females. The psychological well-being of medical students has to be handled more thoroughly and paying

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more attention to removing risk factors may help to avoid further unhappiness [8]. Many individuals regard stress to be a normal aspect of life in today's fast-paced, competitive society. Students are not immune to emotional pressure and worry due to the educational system's increasing demands on them. Undergraduate education, in particular, is infamous for being both time-consuming and emotionally draining [10]. Young individuals are predisposed to harmfully affect their eating habits in terms of eating a diversity of fruit and vegetable, and as a result the frequency and quantity of consumption changes significantly [11]. Older adults have a far harder time breaking bad behaviors they picked up as children. If health professionals want to improve the community's health-promoting habits and well-being, they should focus their efforts on young people [12]. Many of the variables contributing to health concerns in older people can be avoided if they are identified and addressed early on. Early treatments can change behavioral patterns that put young people at risk for health problems later in life [13]. Important results emerge when the abovementioned restrictions are considered. Physical inactivity among university students is a severe health issue. Physical inactivity has lately been named as one of the top ten causes of death and morbidity worldwide by the World Health Organization [14]. Understanding the prevalence of (in)sufficient physical activity in university students gives useful information regarding the scope of the present problem within this demographic and the relevance of intervening in this health-related behavior for health professionals [13, 15]. Students' access to physical activity options, as well as the extent to which present possibilities are sufficient for students' activity preferences and needs, should be considered by university health services. In this study the lifestyle and eating habits of university students was assessed and the results among day scholars and students living in hostels was compared. There is a need to create awareness for the improvement of lifestyle, eating habits and psychological distress through nutritional education, nutritional seminars and prompt counselling so that the consequences regarding this problem could be reduced.

METHODS

It was a Cross-Sectional study carried out at The University of Lahore. Duration of the study was 4 months. Sample size was 100 and Non-Probability Convenient Sampling technique was used for sample collection. Inclusion Criteria: 1. Day scholars and students living in hostels of both genders aged 18-30 years studying at University of Lahore. Exclusion Criteria: 1. Non-cooperative students. 2. Students from other universities. Global sleep assessment questionnaire (GSAQ) was used for the assessment. The 11 items cover mood, life activities and medical issues as they relate to sleep, along with symptoms associated with insomnia. Obstructive sleep apnea, restless legs syndrome/periodic limb movement and parasomnias. The Kessler Psychological Distress Scale (K10) is a simple measure of psychological distress. The K10 scale involves 10 questions about emotional states each with a five-level response scale. The measure can be used as a brief screen to identify levels of distress. The rules and regulations set by the ethical committee of University of Lahore were followed while conducting the research and the rights of the research participants were respected. Written informed consent attached was taken from all the participants. All information and data collection were kept confidential. Participants were remained anonymous throughout the study. The subjects were informed that there are no disadvantages or risk on the procedure of the study. They were also be informed that they will be free to withdraw at any time during the process of the study. After taking informed written consent, data was collected by the researcher with the help of attached pre-tested data collection tool (questionnaire/Proforma). Data were collected according to the variables of the questionnaire which are as follows: 1. Demographic data were taken from the participants. 2. Questions were asked from students of University of Lahore. Data were tabulated and analyzed with the help of SPSS version 21.0. The data were reported using descriptive and inferential statistics. The quantitative variables like age, etc. was assessed by using mean standard deviation and standard errors. The qualitative variables were reported using percentages and frequencies.

RESULTS

Figure 1 shows frequency distribution of day scholars and Hostelites. The study was done with 50 day scholars and 50 hostelites.

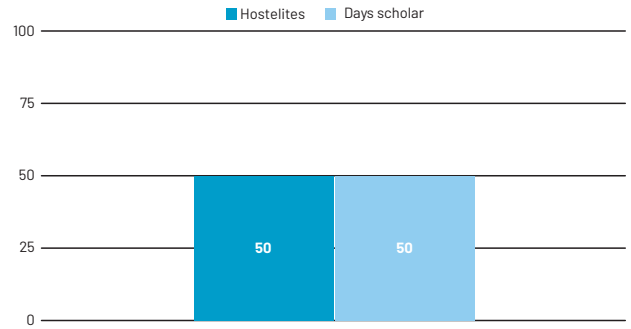

Figure 1: Frequency distribution of hostelites or day scholars

Table 1 shows that 10% of hostelites are underweight while in comparison percentage of day scholar is 5%, 34% are normal, 7% overweight and 4% are obese in contrast to

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hostelites whose percentages are 32%, ,5% and 3% respectively.

Sr. #	Body Mass Index		Frequency		p-value
			Hostelites	Day scholars	
1.	Below 18.5	Underweight	10	5	0.17
2.	18.5 to 24.9	Normal Weight	32	34	
3.	25 to 29.9	Overweight	5	7	
4.	30 or more	Obese	3	4	
5.	Total		50	50	

Table 1: Distribution of Body Mass Index (BMI) of individuals

Table 2 shows frequency distribution and significance of different factors studied. Several questions were asked from hostelites and day scholars and their response were recorded

Questions	Response	Frequency (n=50)		p-value
		Hostelites	Day scholars	
Distribution of Breakfast an important component in diet	No	5	5	0.884
	Yes	31	31	
	Sometimes	9	12	
	Rarely	5	2	
Distribution of Stimulants Consumed	Never	8	13	0.750
	1-3 times	20	20	
	4-7 times	12	10	
	More than 7 times	10	7	
Distribution of fast food consumed in a week	Never	4	4	0.095
	1-3 times	10	42	
	4-7 times	29	3	
	More than 7 times	7	1	
Distribution of no. of meals eaten in a day	1-2 times	13	5	0.435
	3-4 times	26	25	
	5-6 times	8	10	
	More than 6 times	3	0	
Distribution of mindful sensation of hunger	Yes	38	37	0.464
	No	12	13	
Frequency distribution of physically hungry	Yes	33	29	0.002
	No	17	21	
Distribution of time spent walking daily	Less than 10 minutes	11	13	0.707
	10-20 minutes	17	16	
	30-40 minutes	15	12	
	More than 40 minutes	7	9	
Distribution of difficulty falling asleep	Never	11	10	0.447
	Sometime	17	24	
	Often	14	10	
	Always	8	6	
Distribution of Sleep difficulties interfering with daily activities	Never	12	10	0.787
	Sometimes	22	19	
	Often	12	14	
	Always	4	7	
Distribution of loud snoring	Never	34	35	0.007
	Sometimes	11	10	
	Often	3	2	
	Always	2	3	
Distribution of restless or crawling feelings in legs at night	Never	23	26	0.307
	Sometimes	20	22	

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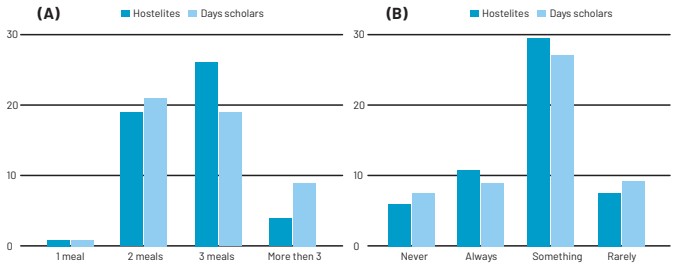
	Often	7	1	
	Always	0	1	
Distribution of nightmares or sleepwalking	Never	23	20	0.300
	Sometimes	14	17	
	Often	13	4	
	Always	0	2	
Distribution of feeling nervous in the past	Score 5	5	5	0.009
	Score 4	9	13	
	Score 3	27	18	
	Score 2	9	6	
	Score 1	0	8	
Frequency distribution of feeling so nervous that nothing could calm you down	Score 5	3	5	0.002
	Score 4	20	11	
	Score 3	18	8	
	Score 2	9	14	
	Score 1	0	12	
Distribution of feeling restlessly or fidgety	Score 5	9	5	0.264
	Score 4	18	14	
	Score 3	15	14	
	Score 2	7	9	
	Score 1	1	8	
Frequency distribution of feeling so restless that could not sit still	Score 5	11	7	0.005
	Score 4	14	12	
	Score 3	19	8	
	Score 2	6	11	
	Score 1	0	12	
Distribution of feeling as everything was an effort	Score 5	12	10	0.376
	Score 4	16	16	
	Score 3	17	12	
	Score 2	5	7	
	Score 1	0	5	
Distribution of worthless feeling	Score 5	3	12	0.000
	Score 4	15	6	
	Score 3	28	13	
	Score 2	4	10	
	Score 1	0	9	
Total		50	50	

Table 2: Frequency distribution and p-value of different factors studied

The consumption of meals per day indicates that 1% of both groups are consuming1 meal a day while hostelites are consuming 19, 26 and 4% of 2, 3 and more than 3 meals daily respectively whereas 21, 19 and 9% of day scholars are consuming 2, 3 and more than 3 meals a day accordingly (Figure 2A). As far as intake of snacks between meals of day scholars is concerned, it shows that 5% of them avoid the intake of snacks between meals,28% have it sometimes and 8% consume snacks rarely. Whereas hostelites consume more snacks,11%daily while 29 % sometimes and very few of them about 4% don't eat snacks(Figure 2B). The dietary habit of milk consumption of hostelites shows that 5% consuming it more than 7 times, 8% 4-7 times ,22 % 1-3 times and 15 % of them don't prefer milk in contrast to them day scholars 19% do not prefer milk while 17% consuming it 1-3 times, 11% 4-7 times and 3% more than 7 times (Figure 2C). Trend of intake of soft drinks shows that 15 % of hostel students never drink, 18%are having it 1- 3 times, 11% 4-7 times and 6% more than 7 times per week but 13% of day scholars are drinking it 1-3 times, 3% 4-7 times and 15% are not having soft drinks(Figure 2D).



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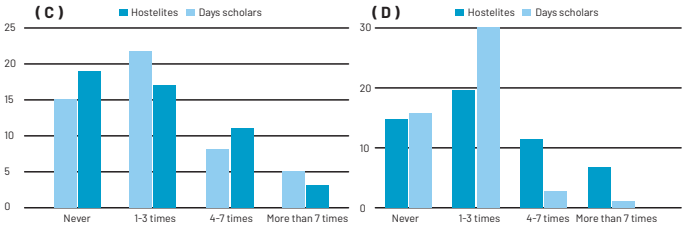

Figure 2: (A) Frequency distribution of No. meals in daily diet (B) Frequency distribution of snacks between meals (C) Frequency distribution of cups of milk consumed in a week (D) Frequency distribution of soft drinks in a week

DISCUSSION

The present study shows that the trend of breakfast consumption is almost similar among the two groups as 5% of both do not consider breakfast an important part of their diet, 31% view it as an important component of their daily eating habits, 9% of hostelites and 12% of day scholars were recorded to have breakfast sometimes while 5% of hostelites and 2% of day scholars rarely had breakfast. Similarly, a study conducted on 145 total students in a university of Ankara showed that 44.8% of the students consumed breakfast 2-3 times weekly. The percentage of students who had breakfast daily was 44.1% and the percentage that had breakfast only on weekends was 11.1% [16]. As far as snacking between meals is concerned, the results show that 9% of day scholars take snacks in between meals daily, 5% do not have any, 28% have snacks sometimes and 8% rarely snack between meals. As opposed to day scholars, the hostelites seem to be consuming more snacks. 11% of them have snacks between meals on a daily basis, 4% do not consume snacks, 29% have snacks sometimes while 6% rarely snack between meals. Similar findings were observed in research conducted in multiple universities of South India that showed snacking was a habit for a significant amount of the students (54.3 percent) in addition to major meals [17]. An assessment of the weekly intake of stimulants like coffee and tea among both groups was done and it was found that hostelites take these stimulants slightly more often than day scholars. 13% of day scholars were seen to not be taking coffee or tea at all, 10% were having them 4-7 times a week and 7% were having them more than 7 times weekly. Hostelites on the other hand were seen taking coffee and tea in a somewhat higher amount. In a week, about 7% of them were having tea or coffee more than 7 times, 12% had them 4-7 times and a small proportion of 8% were found to not be taking them at all. Another study showed similar results for caffeine consumption among university students in New Zealand as it was seen that ninety-nine-point one percent of students were found to be consuming caffeinated items on a quite frequent basis. Coffee, tea, and chocolate were found to be the most common. Out of which coffee, energy drinks and tea made up most of the total consumption [18]. The dietary habit of milk consumption in a week for hostelites was found to be greater than that of day scholars. In a week, 5% of hostelites were consuming it more than 7 times, 8% had milk 4-7 times a week, 22% had it 1-3 times and 15% of them preferred to not consume milk at all. In contrast, the weekly milk consumption of day scholars is a bit less as 19% prefer not to consume milk, 17% are consuming it 1-3 times, 11% take it 4-7 times and 3% consume milk more than 7 times in a week. Although in one previous research conducted on a university student population, no changes were seen in the frequency with which various dairy products were consumed based on age, type of living, degree of university education, or their class schedules [19]. The weekly fast-food consumption of hostelites was found to be more frequent than that of day scholars. 29% of hostelites were having fast food 4-7 times, 7% had it more than 7 times and 10 % had it 1-3 times a week. Whereas for day scholars, 3% of them were having fast food 4-7 times, 1% was having it more than 7 times and 42% had it 1-3 times a week. Both groups were seen to have the same 4% of students who were not having fast food at all. Likewise, a high percentage of students were found to be consuming fast food in a study among university students in Bangladesh conducted in 2014. Fast-food consumption was found to be common in 55.9 percent of men and 44.1 percent of women. At least once a week, 56 percent of university pupils ate fast food, and 44 percent did so on a routine basis [20]. The physical activity trends among hostelites and day scholars were also observed and hostelites were found to be more active than day scholars. The results showed that 33% of hostelites were physically active while 17% were not. Whereas 29% of day scholars were physically active while 21% were not. Similarly, research was conducted among three hundred participants at Hitit University, Turkey about Physical activity and quality of life in different sports departments. In comparison, men had a greater level of physical exercise than women. It was also revealed that when physical activity rates increased, the quality-of-life scores also increased and there was a positive association between the two [21]. As for the sleeping patterns among the two groups, it was seen that hostelites were having difficulty falling asleep slightly more often as compared to day scholars. Among the group of hostelites, 11% were those who never had difficulty falling asleep, 17% faced difficulty sometimes, 14% often, and 8% answered that they always had difficulty falling asleep. Whereas for the group of day scholars, 10% were those who never had difficulty falling asleep, 24% faced difficulty sometimes, 10% often, and 6% answered that they always had difficulty falling asleep. Similarly, some research conducted on

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seven-thirty-five total participants at Lebanon university showed that 43.7 percent of the total study population were good sleepers. It was also found that 57.8 percent of males faced more sleeping complications than female's 40.8 percent [22].

CONCLUSIONS

This study revealed the challenges that university students experience in maintaining a healthy lifestyle nutritionally, especially when they live in hostels. The current results suggest a concerning prevalence of psychological distress, as well as bad food and sleeping habits and lifestyle behaviors that should be targeted and modified. The comparison of day scholars and students living in hostels revealed that hostelites have more psychological distress, their sleeping quality is worse and they have bad eating habits. There is the need for strategies and coordinated efforts at the family, university, community, and government levels to reduce the prevalence of unhealthy eating habits and their consequences among the students while promoting healthy eating habits among our youth.

Conflicts of Interest

The authors declare no conflict of interest.

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