



## DIETARY HABITS AND LIFESTYLE PRACTICES AMONG STUDENTS OF SIALKOT MEDICAL COLLEGE, SIALKOT

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### ABSTRACT:

#### OBJECTIVE;

The objective of this study is to determine dietary habit and different lifestyle practices among University students

#### STUDY METHODOLOGY;

The study was conducted between 15<sup>th</sup> October to 15<sup>th</sup> December, 2020. Sampling technique was simple random sampling. We selected medical students (MBBS) studying in SMC for which we developed questionnaire based on demographic details and questions in accordance with our research.

A self-administrated questionnaire was distributed among the students of five academic years after taking their informed consent. The questionnaire comprised of four sections. The first section consisted of demographic information (age, sex, year of study, residence). The second section aimed to get knowledge of students regarding balanced diet, importance of nutritional supplements, consciousness about more sugar, caloric in diet, junk food preference and water intake. The third section aimed at determining symptoms related to malnutrition while fourth section was about the lifestyle of students in which regular exercise, stress, eating menu, sleeping hours and smoking habits.

#### RESULT:

Out of 131 responses, Male to Female ratio recorded was 50.4%: 49.6% as most of them were students belonging to an urban residency. Well-balanced diet was being enjoyed by 55% students where remaining 45% lack one of the nutrients in their diet. Number of students taking supplements for adequate growth and proper functioning was 27.5%. Exercise as habit was lacking in 77.6% students. Water intake was approximately 4 to 6 glass on average in majority of students. Half of students take sugar in proper amount. Although the sleeping hours were adequate but the alarming situation was that 69.2% of them were night persons. Students eat junk food quite often and half of them skip breakfast. However, calories intake in 69.51% was adequate and 49.6% students think that they perform their tasks accordingly. Smoking prevalence was far so less as 85% students were non-smokers. 94% of them think that they enjoy proper diet but according to BMI, 25% students were overweight and 5% were underweight.

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## CONCLUSION;

It is concluded that majority of students in Sialkot medical college enjoy good healthy life. But there are several factors that may contribute to bad health, mental stress, and unhealthy lifestyle due to poor dietary choices at college. As they prefer junk foods, being night person and lack of proper sleep they feel stress in life.

## INTRODUCTION:

College students are at risk for making poor dietary choices that can cause significant health problems. In the college, weight gain is likely same as during the transition into university life. These groups of individuals are at higher risk of developing unhealthy eating behaviors with inadequate nutrient intake.

Majority of undergraduate students eat at college dining facilities with limited healthy food options. Being medical students, it is often hard for students to manage time so students adapt unhealthy lifestyle and eating behaviors, some of these behaviors include irregular meals, not eating breakfast, reduced fruit and vegetable intake and increased consumption of junk food. Apart from the change in dietary habits, poor exercising habits, bad time management and the increasing amount of stress from school work also contribute to weight gain. Moreover, if students do not attain adequate nutrition daily, a decrease in academic or physical performance can result.

The opening of numerous fast-food stores, cafés and restaurants provide university students more opportunities to dine outside instead of consuming self-prepared meals. The improper eating habits developed during this stage of life can continue into adulthood.

Studying the change in dietary habits and lifestyle practices among university students can help educate them on the importance of preventing early development of obesity by adopting healthy lifestyles. It is hoped

that this study can increase the awareness of healthy lifestyle and eating among young adults, thereby reducing the risks of developing chronic diseases.

The purpose of the present quantitative study was to investigate college students' eating habits and knowledge of nutritional requirements for health.

## OBJECTIVE

The objective of this study is to determine dietary habit and lifestyle practices among students of SMC.

## STUDY METHODOLOGY:

A Cross sectional study was conducted at Sialkot Medical College, Sialkot from 15th October to 15th December, 2021. Over 131 students through probability sampling by Simple Random 10% Sampling technique. We selected medical students studying in SMC.

We developed questionnaire based on demographic details and questions in accordance with our research. The population is divided into 5 strata according to the year of study. All willing medical students of MBBS attending Sialkot Medical College, regardless of gender were included in this study. All non-willing and non-cooperative students were excluded.

A self-administered questionnaire was developed and distributed to 300 students. Informed consent was taken and students were requested to fill the questionnaire honestly. All the students were asked to return the questionnaire within three days. Confidentiality was ensured. Approval from the ethical committee of SMC was taken.

The questionnaire was divided into four sections.



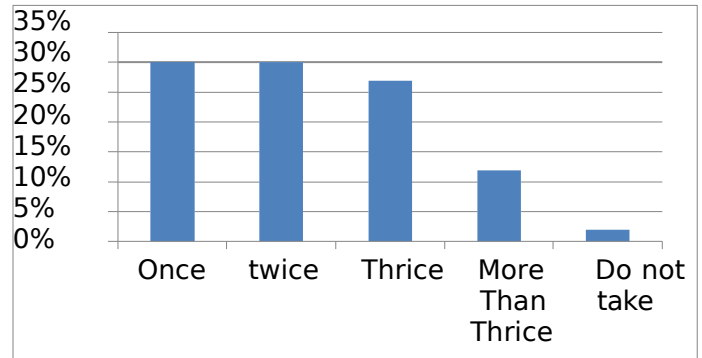
- Section 1: It was related to demographics (age, sex, year of study, residence)
- Section 2: It was aimed to get the knowledge of students regarding balanced diet, importance of nutritional supplements, consciousness about more sugar, caloric intake, junk food preferences and water intake.
- Section 3: It aimed at determining symptoms related to malnutrition.
- Section 4: It aimed at determining lifestyle of students which involve regular exercise, stress, eating menu and sleeping hours and smoking habits.

The entire questionnaire was analyzed. Frequencies and percentages were taken and Chi Square test was applied to demonstrate association between different variables. Results were presented in the form of charts and graphs.

## RESULTS

**Table 1: Demographic details of Subjects.**

Demographic	Frequency	Percentage
<b>AGE</b>		
18-20 year	27	20.6
21-25 year	100	76.33
26 and more	4	3.0
<b>Total</b>	<b>131</b>	<b>100</b>
<b>GENDER</b>		
Males	68	51.9
Females	63	48.1
<b>Total</b>	<b>131</b>	<b>100</b>
<b>YEARS OF STUDYING</b>		
1st year	10	7.6
2nd year	10	7.6
3rd year	26	19.84
4th year	70	53.43
5th year	15	11.45
<b>Total</b>	<b>131</b>	<b>100 %</b>

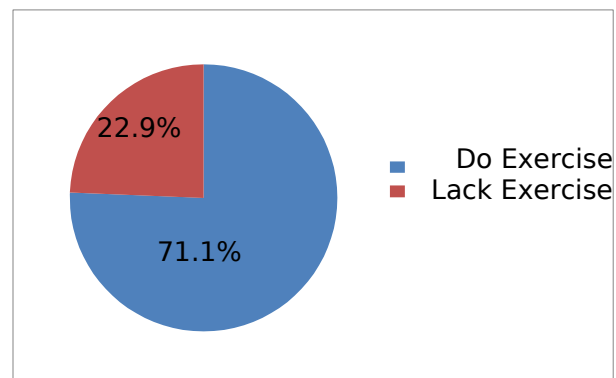


**Intake of Junk food per week**

**Figure 1: Number of times junk food taken**

30% take junk food once a week while 30% twice a week, however 26.9 take thrice a week and 11.1% take very frequently junk food out of them 2% do not take junk/ fast food.

## Proper Exercise



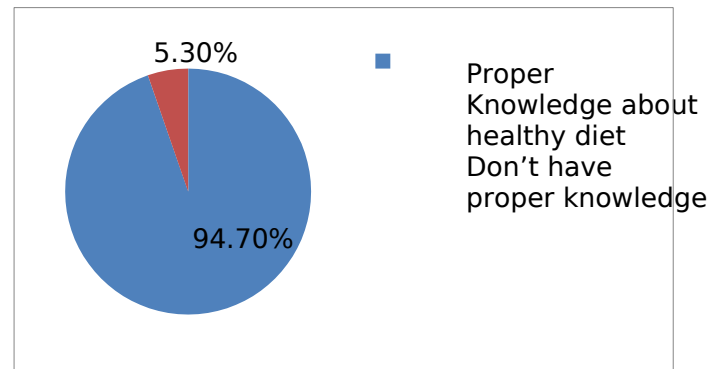
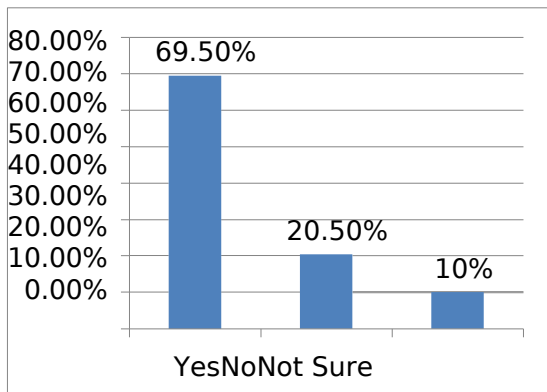
**Figure 2, Number of students who perform exercise**

101 (77.1%) students out of 131 perform exercise regularly while remaining 30 (22.9) don't do exercise.

**Intake of proper Calories per day as required according to age, sex, height and weight.**



### Knowledge about proper diet



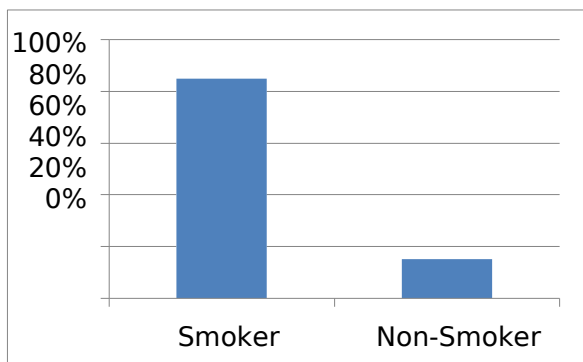
**Figure 3: Regular Calories intake**

69.5% which means 91 out of 131 students take proper calories daily while 20.5% which means 27 out of 131 don't take proper calories and remaining 10% are not sure about their caloric intake.

**Figure 5, No of students have proper knowledge about healthy diet while remaining don't have**

94.7% students have proper knowledge about healthy diet while remaining don't have

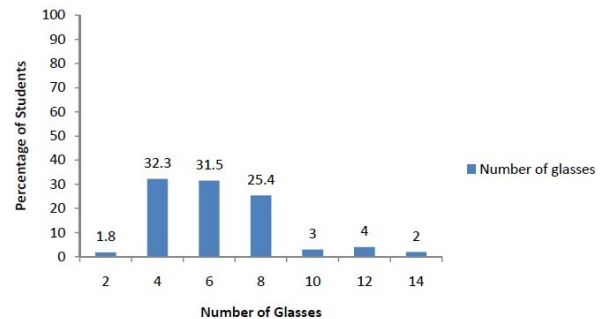
### Frequency of Smoking



**Figure 4, No of students who are non-smokers and smoker**

85% students are non- smokers and 15% are smokers.

### Daily Water Intake

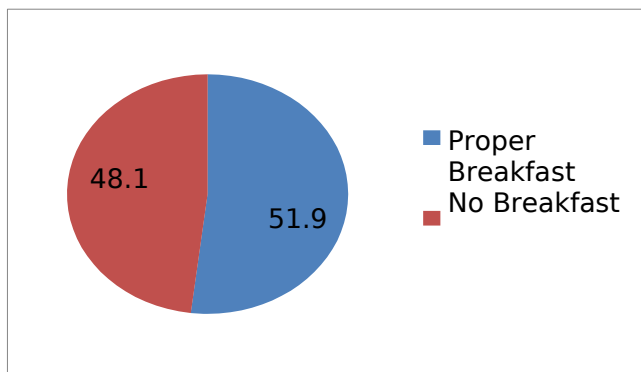


**Figure 6, No of students daily water intake**

Above findings show that only 25.4% (n= 33) students take 8 glass of water daily while 32.3% (n=42) take 4 glass of water and 31.5% (n=41) take 6 glass of water daily.



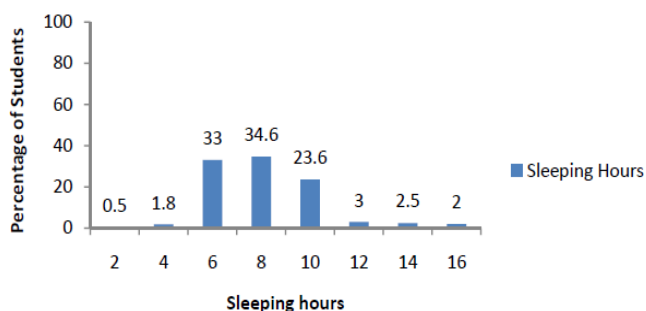
### Proper daily Breakfast



**Figure 7, No of students who take proper breakfast regularly or not**

51.9% that is 68 by 131 students take proper breakfast regularly while remaining 48.1% (63 by 131) don't.

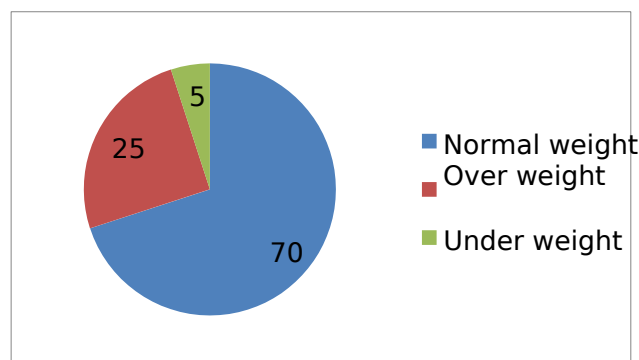
### Sleeping Habits



**Figure 8, No of students who are taking proper sleep in day/ night**

69.2% students are night persons, which mean they perform most of their activities at night. While, 30.8% prefer day for their daily tasks. Apart from day and night, we also calculated data for sleeping hours and we found out that 34.6% sleep 8 hours daily, 33% 6 hours daily, 26.3% sleep 10 hours daily. While, remaining sleep either less than 6 or more than 10 hours per day depending upon their activities.

### Weight of students in percentage



**Figure 9, showing weight of students**

Weight	%age
Normal weight	70
Over weight	25
Under weight	5

70% of the students were of normal weight, while 25% of students were overweight and 5% were underweight according to the BMI (< 18.5 under wight, > 25 over weight and rest were normal)

Nutritional Supplements: 72.5% (n=95) take nutritional supplements to fulfill their body requirements while 27.5% (n=36) do not take any nutritional supplements. Stress in daily living: 70.8% (93 by 131) feel stress in daily living while 29.2% (38 by 131) are happy and satisfied

### DISCUSSION

Majority of our students of SMC belong to urban areas, they have been adopting the Western choices and they are unaware of their effects. During the last few decades, the Kingdom of Saudi Arabia (KSA) experienced rapid socio-cultural changes caused by the accelerating economy in the Arabian Gulf region<sup>8</sup>. That was associated with major changes in the food choices and eating habits which, progressively, became



more and more "Westernized". Such "a nutritional transition" has been claimed for the rising rates of overweight and obesity which were recently observed among Saudi population. So a research was conducted among college students in Saudi Arabia on obesity and eating habits and it was published in January 2010. The objectives of the current work were to determine the prevalence of overweight and obesity in a sample of male college students in KSA and to determine the relationship between the students' body weight status and their eating habits. Total of 357 male students aged 18-24 years were randomly chosen from College of Health Sciences at Rass, Qasim University, KSA for the present study. A Self-reported questionnaire about the students' eating habits was conducted. Results indicated that 21.8% of the students were overweight and 15.7% were obese. The total body fat exceeded its normal limits in 55.2% of the participants. The most common eating habits encountered were eating with family, having two meals per day including breakfast, together with frequent snacks and fried food consumption. Vegetables and fruits, except dates, were not frequently consumed by most students. Findings of their study and our research suggest the need for strategies and coordinated efforts at all levels to reduce the tendency of overweight, obesity and elevated body fat, and to promote healthy eating habits in their youth.

Medical students are more aware of nutritional values and they know what actually a healthy diet mean but as they have to face stress and burdened by study system they prefer what is available for them. Lack of choices in the college additionally made them limited to think over.

A group of researchers studied dietary habits and lifestyle practices among university students in University Brunei Darussalam in March 2018<sup>1</sup>. The aim of this study was to find out changes in lifestyle and dietary habits during this transition to university life. Data was collected from January to April 2016. Total 303 students were recruited during study period, of which 27.4% were male, and 72.6% were females. The prevalence of overweight/obesity among this population of university students was 28.8% and affected males and females equally (28.9% versus 28.6%). Although most university students reported having good knowledge of the food pyramid and balanced nutrition, the majority did not adhere to and practiced such healthy eating habits. Most of them skipped breakfast, snacked frequently, consumed fried food often and had a low intake of daily fruits and vegetables. The transition from homemade food to increased dependence on outside food such as fast food is common among the respondents especially among the overweight/obese population. Physical activity was low among students and less than WHO recommended levels. Almost 72.5% students take supplements and 94.7 percent have proper knowledge about well-balanced diet including vegetables, fruits, protein etc but only 55 percent take proper diet<sup>1</sup>. The majority of students don't exercise regularly and the available opportunities to them are mostly junk. 32% students take junk food once in a weekend the other ratio takes twice or thrice in a week while a minimal percentage of students avoid junk food<sup>9</sup>. The findings of the Saudi study and Brunei study are almost similar to our study.

Age 18-25 coincides with a research which was published in February 2005 on Nutritional knowledge, food habits and health attitude of Chinese university



students<sup>5</sup>. The study showed that 80.5% of students had a normal BMI and 16.6% of students were underweight with the prevalence of BMI >30 obesity being very low in this study sample which is in agreement with our study. Young Chinese female students had a greater desire to be thinner (62.0%) than males (47.4%). Majority of students were classified into the normal BMI group, with the prevalence of BMI >30 obesity being very low in this study sample. Habits involving regular eating patterns and vegetable intake were found and represent practices that ought to be encouraged. Snack patterns in Chinese students were very similar to the traditional eating pattern, although diets are changing rapidly in China and other low-income countries.

Our research shows that the maximum number of students has healthy meals and the others do not may be due to some environmental issues or food choices. 25% of students drink 8 to 10 glasses of water daily and 10% of students has less than 4 glasses intake of water. A research was conducted on social and psychological factors affecting eating habits among university students in a Malaysian medical school. It was published in 2012<sup>9</sup>. A cross-sectional study was conducted among 132 medical students of pre-clinical phase at a Malaysian university. A self-administered questionnaire was used which included questions on socio-demography, anthropometry, eating habits and psychosocial factors. Mean ( $\pm$ SD) age of the respondents was 22.7 ( $\pm$ 2.4) years and (the age) ranged from 18 to 30 years. More than half had regular meals and breakfast (57.6% & 56.1% respectively). Majority (73.5%) consumed fruits less than three times per week, 51.5% had fried food twice or more a week and 59.8% drank water

less than 2 liters daily. Eating habits score was significantly low among younger students (18-22 years), smokers, alcohol drinkers and those who did not exercise. ( $p < 0.05$ ). Four psychological factors out of six, were significantly associated with eating habits ( $p < 0.05$ ). In multivariate analysis, age and 'eating because of feeling happy' were significantly associated with eating habits score ( $p < 0.05$ ). Most of the students in this study had healthy eating habits. Social and psychological factors were important determinants of eating habits among medical students age of this study and our study matches it in all respects.

52% of students take their breakfast daily which depicts to a healthy ratio in a tough routine for medical students. Medical students in addition to tough routine in SMC are enjoying a healthy lifestyle as the big ratio of students 95% are aware of nutritional values and benefits concludes that they are handling their physical matters as well. 30.8% of students are day persons otherwise 69.2% percent of students are night persons which disturbs their life cycle. It has drastically increased the risks of unhealthy lifestyle which can lead to certain harms to their body. Only one study from USA which is probably the first longitudinal study. Research was conducted at College Of Nursing, University of Cincinnati, USA on health status and lifestyle habits of US medical students. It was longitudinal study data were collected from 2006-2011 and analyzed in 2013-2014 with SAS version 9.3. It was published in 2016. The aim of study was to assess changes in students' health and lifestyle behaviors during medical school. Data of 125 medical students (55 males and 70 females; 99 Caucasians, 4 African Americans, and 22 Asians) were enrolled in the study, reflecting 46.5 percent (67/144) of the 1st-year students in 2006 and 40.8 percent



(58/142) of the 1st-year students in 2007. Seventy-eight percent (97/125) of the enrolled participants completed both visits. Best of our knowledge, this is the first longitudinal study that assessed anthropometric and metabolic measures and lifestyle behaviors of medical students. Students' clinical measures and lifestyle behaviors remain generally healthy throughout medical school; yet some students exhibit cardio metabolic risk, and diet and activity habits not aligned with national recommendations, the number of students in American study was 125 and of our study were 131, almost same and in the both studies the students were from medical background.

BMI Body Mass index is a simple calculation using a person's height and weight. The formula is  $BMI = \frac{kg}{m^2}$  where kg is a person's weight in kilograms and  $m^2$  is their height in meters square. A BMI of 25.0 or more is overweight, while the healthy range is 18.5 to 24.9. BMI applies to most adults 18-65 years. One study was conducted in Sudan in which a group of researchers studied correlation between physical activity, eating behavior and obesity among Sudanese medical students and their research was published in February 2019<sup>[3]</sup>. The aim of this study was to determine the relationship between physical activity, eating behavior, and obesity among medical students at Al-Neelain University. This was a cross sectional study conducted among 216 medical students at Al-Neelain University selected by stratified random sampling. Data were collected by self-administered questionnaire, which included background data. The prevalence of obesity among students was 6.5% and overweight was 22.2%. The study showed that 44.9% of medical students had low activity level while 32% of students had moderate activity level and 23.1% had high physical

activity level. There was no significant relationship between physical activity and body mass index (BMI) in this study. The common eating pattern among students was controlled eating (45.8%). There was significant relationship between eating behaviors and BMI. The study revealed eating habits has stronger impact on BMI than physical activity. Disturbing figures regarding overweight and low physical activity among medical students, identified in this study, encourages implementation of health programs emphasize on importance and benefits of physical activity and eating habits in medical curricula.

In our study we also selected students from different class of MBBS like in the Cameron study where students of different department were selected.

Research regarding nutritional status in college students in Western Maharashtra, India, has been found lacking. Therefore, this study was undertaken to ascertain the dietary habits in the undergraduate students of a health institute<sup>4</sup>. The cross-sectional survey was conducted for 100 medical students at a health university. A total of 130 students comprising 74 girls and 56 boys from the Health University participated in the study. All the students were staying in the hostel of the university. Eighty-three (68%) responders out of 130 said that they had breakfast daily. Daily consumption of fruits and vegetables was only 1-2 portions for 98 (75%) of the participating students. Out of 130 Students studied regarding snacks preference, fried snacks were the most popular with 51 (39%) students, followed by various. Bakery items by 30 students. Only 9 (7%) students preferred salads and soups for snacking.

A research was conducted among students of a private medical college university





Karachi in February 2009<sup>7</sup>. The objective of this study was to determine the dietary habits and lifestyle of the students of Baqai Medical University. A total of 384 medical students participated in this study. Out of the total participants, 53.4% were male and 46.6% were female students. The mean age was 20 +/-

1.58 years. The average income of the household of students was 50,000 Pakistani rupees per month. Only 7% students were tobacco users. About 33% students had a history of diabetes mellitus among their parents. Nearly ninety-seven percent reported consumption of junk food while 60% reported use of whole grain food in their diet. Seventy percent students walked 30 minutes and 47% exercised daily. According to the body mass index, 58.3% students were of normal weight and 41.7% were overweight. No significant difference was found among male and female students when dietary habits and life style were compared by sex. Junk food and soft-drink consumption was associated with being overweight. Eating whole grain food and doing exercise showed a protective association against overweight. It was concluded in the research that Unhealthy lifestyle and poor dietary habits were highly prevalent in the overweight study population. Type-2 diabetes mellitus was common among parents and grandparents of the students making them prone to this disorder.

### **LIMITATIONS:**

As we know that in recent years, we all are facing corona pandemic, so it was very difficult for us to collect data from all the students. We made online forms and send them to fill it out. On serious attitude of students in filling the form is also an important limitation. Since it was a self-administrated questionnaire, students might

have exaggerated certain features. This study was carried out in a single institute comprising of only medical students. The findings of this study must be deduced in a practically wise and shrewd manner in the light of these limitations and can't be generalized.

### **RECOMMENDATIONS**

Students should properly take their meals and exercise regularly to become strong enough to fight with their busy schedules. An unbalanced diet can lead to negative outcomes including weight gain, diabetes, food neo-phobia, obesity etc. However the role of dietary habits on weight gain and other health measures in students need to be further explored. Our findings highlight the need for university nutrition policies and nutrition service providers to recognize the real nutrition needs of students. However the role of dietary habits and lifestyle on weight gain and other health measures in students' needs to be further explored.

### **CONCLUSION**

In this study, it is concluded that majority of students in Sialkot medical college enjoy good healthy life. But there are several factors that may contribute to bad health, mental stress, and unhealthy lifestyle due to unsatisfactory hygienic campus environment. As they prefer junk foods, being night person and lack of proper sleep they feel stress in life.

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