

Dietary Behaviour and Physical Activity Level of College Students in Varanasi, India

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Abstract

Unhealthy diet and physical inactivity are widely recognised as critical risk factors for non-communicable diseases (NCDs). Diet and physical activity both together can help people to reach and maintain a healthy weight, reduce the risk of chronic diseases (like heart disease and cancer), promote the overall health and eventually improve quality of life. According to NFHS report (2015-16) more than 42% of adult women and 38% of adult men in India are either too thin, overweight or obese. More women and men are thin than overweight. Nevertheless, the proportion of women and men who are too thin has decreased and the population of overweight or obese adults has increased compared to previous results[1]. The present study was carried out to assess the dietary behaviour and physical activity level of college going students. According to the results of the study, majority of males (57.33%) were non-vegetarian while higher population of females (49.14%) were vegetarian. It was also observed that higher proportion of the respondents were skipping meals and the meal was skipped the most was breakfast. A large proportion of study population among both groups of males and females were eating their meals outside at least once a week. According to the results of the study majority of the respondents (64.90% of males) and (87.43% of females) were grouped in sedentary level of physical activity.

Key words: Diet, Physical activity, Males, Females

1. Introduction

According to some studies, it has been proved that diet and nutrition play important roles in maintaining health and preventing some diseases [2,3]. College students are at risk for making poor dietary choices that can cause significant health problems [4]. Croll et al. found that barriers to healthy eating among students include a lack of time, limited availability of healthy foods in schools or colleges and a general lack of concern about following healthy eating recommendations [5]. Physical activity is defined by WHO as any bodily movement produced by skeletal muscles that requires energy expenditure. Physical inactivity has been identified as the fourth leading risk factor for global mortality causing an estimated 3.2 million deaths globally. Physical activity can reduce the risk of developing some non-communicable diseases such as type 2 diabetes, cancer and cardiovascular disease (CVDs) [6]. Eating habits and physical activity usually shape or change during adulthood and establishing

good eating habits during this time is critical and it can be very difficult to change once they are established [7].

The main aim of the present study was to assess the eating pattern and dietary behaviour, evaluating the physical activity level of all the respondents and comparison of dietary behaviour and physical activity level among male and female participants. It has been suggested that educational interventions regarding importance of diet and physical activity are needed to be addressed college students in translating good nutritional knowledge into healthy dietary behaviors and improving their physical activity level.

2. Materials and Methods

2.1 Selection of subjects

The present study was conducted on 400 college going students both males and females from Banaras Hindu University where they were studying. The subjects were free from any physical and mental problems age 18 - 30 and were purposively selected from different departments and hostels in BHU campus, Varanasi. Data collection was organized through structural questionnaire cum interview schedule.

2.2 Assessment of eating habit

In this study assessment of eating habit was done through standard questionnaire. The respondents have been asked about their eating habit to assess the prevalence of vegetarian, non-vegetarian and egg-eating participants among total population.

2.3 Assessment of skipping meals habit

Skipping meal is an unhealthy dietary behaviour that can create some metabolism disorders in the body which may cause weight gain or make it harder to lose weight. Subjects have been asked questions related to skipping meals and the meal which is skipped the most.

2.4 Assessment of eating meals outside

In this section the questions regarding eating meals outside and the frequency of eating outside including daily, weekly, monthly and occasionally has been asked.

2.5 Evaluation of physical activity level

Evaluating of physical activity level of the respondents in the present study was done through Global Physical Activity Questionnaire (GPAQ-2004). The questionnaire includes 16 questions in four different sections regarding activity at work, activity during traveling to or from places, recreational activities and sedentary behaviors. Analysis of this questionnaire was done by standard formula for assessing physical activity level including sedentary, moderate and high level among the total population.

2.6 Statistical analysis

The data obtained from the participants was maintained and tabulated and the results are presented as numbers and percentages. Data analysis has been processed through SPSS version 16.0 by using suitable statistical tools and techniques.

3. Results and Discussion

The population included for the study comprised of males and females studying in BHU. It can be perused from table 1 that a larger proportion of the participants were in the age group of 18 to 21 years followed by 22 to 25 years. Table 2 shows the distribution of the study population according to their food habit including vegetarian, non-vegetarian and eggetarian. It is evident from the table that 35.11, 57.33 and 7.56 percent of males were vegetarian, non-vegetarian and eggetarian respectively while among females 49.14% were vegetarian, 34.29% non-vegetarian and 16.57% were eggetarian. Therefore, it is obvious that larger population of males (57.33%) were following non-vegetarian diet and higher percentage of females (49.14%) were vegetarian.

According to table 3, 70.67% of males and 60% of females were skipping meals and the meals which were skipped the most were breakfast followed by lunch among both groups of males and females. Gender wise distribution of participants according to eating meals outside has been shown in table 4.

It is indicated that 80% of males and 90.29% of females were eating meals outside and the majority of them were eating outside weekly. Physical activity level of the participants including sedentary, moderate and high were grouped in table 5. It is evident from the table that majority of the respondents were in sedentary level of physical activity followed by moderate level among both males and females. According to the table 64.90 % of males and 87.43% of females were following sedentary lifestyle. A small proportion of subjects in both groups was placed in high physical activity level.

4. Conclusion

The present study has been concluded that majority of males (57.33%) were non-vegetarian while higher population of females (49.14%) were vegetarian. It was also observed that higher proportion of the respondents were skipping meals and the meal was skipped the most was breakfast. A large proportion of study population among both groups of males and females were eating their meals outside at least once a week. According to the results of the study majority of the respondents (64.90% of males) and (87.43% of females) were grouped in sedentary level of physical activity. Understanding dietary behaviour and physical activity level of college going students is important to plan effective intervention strategies for improvement of their health and overall well-being.

5. Acknowledgements

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6. References

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Table legend-

Table 1: Gender wise distribution of respondents on the basis of age group

Table 2: Gender wise distribution of respondents according to eating habit

Table 3: Gender wise distribution of participants on the basis of skipping meals habit

Table 4: Gender wise distribution of respondents on the basis of eating meals outside

Table 5: Gender wise distribution of respondents according to physical activity level

Table 1: Gender wise distribution of respondents on the basis of age group

Age groups (Years)	Males		Females		Total	
	No.	%	No.	%	No.	%
18-21	110	48.89	88	50.28	198	49.50
22-25	100	44.44	67	38.29	167	41.75
26-30	15	6.67	20	11.43	35	8.75
Total	225	100.00	175	100.00	400	100

Table 2: Gender wise distribution of respondents according to eating habit

Eating habit	Gender					
	Male (n=225)		Female (n=175)		Total (n=400)	
	No.	%	No.	%	No.	%
Vegetarian	79	35.11	86	49.14	165	41.25
Non-vegetarian	129	57.33	60	34.29	189	47.25

Eggetarian	17	7.56	29	16.57	46	11.50
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Table 3: Gender wise distribution of participants on the basis of skipping meals habit

Skipping meals	Gender					
	Male (n=225)		Female (n=175)		Total (n=400)	
	No.	%	No.	%	No.	%
Yes	159	70.67	105	60.00	264	66.00
No	66	29.33	70	40.00	136	34.00
Skipped meal						
Breakfast	99	62.27	53	50.48	152	57.58
Lunch	45	28.30	38	36.19	83	31.44
Dinner	15	9.43	14	13.33	29	10.98

Table 4: Gender wise distribution of respondents on the basis of eating meals outside

Eating meals outside	Gender					
	Male (n=225)		Female (n=175)		Total	
	No.	%	No.	%	No.	%
Yes	189	84.00	158	90.29	347	86.75
No	36	16.00	17	9.71	53	13.25
Frequency of eating outside						
Daily	28	14.82	8	5.06	36	10.38
Weekly	106	56.08	80	50.63	186	53.60
Monthly	12	6.35	13	8.23	25	7.20
Occasionally	43	22.75	57	36.08	100	28.82

Table 5: Gender wise distribution of respondents according to physical activity level



Physical activity level	Gender					
	Male (n=225)		Female (n=175)		Total	
	No.	%	No.	%	No.	%
Sedentary	146	64.90	153	87.43	299	74.75
Moderate	42	18.66	13	7.43	55	13.75
High	37	16.44	9	5.14	46	11.50