A Study to Assess Body Mass Index and Food habits among the Students Studying in Selected Colleges at Greater Noida, Uttar Pradesh

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Abstract:- Health is a fundamental and vital role in everyone's daily existence. It is impacted by events, beliefs, culture, as well as social and exterior factors. Health is an equilibrium of the mind, body, and spirit that is regarded unique to each individual. Many dietary needs are identified at a young age, but as puberty progresses, people become increasingly adept at self-regulating their eating habits, making the shift to independent living while in college a significant milestone. Aim: to assess the BMI and Food habits among students which will enable the researcher to plan and implement for an awareness program to overweight and underweight students. Methodology: To evaluate the BMI and eating behaviours of students, a quantitative research technique using a descriptive survey research design was used in the study. 400 samples were taken using the purposeful sampling approach, which was utilized in the study. Result: The findings of the study shows that there is a significant correlation between food habits and body mass index where (r=0.018; p<0.05) and it was also found that there was association between food habits with selected demographic variables like course of study and marriage. Hence, the researcher rejected the null hypothesis H0$_1$ and H0$_2$. Conclusion: Information on maintaining a healthy body weight has to be spread more. The student's understanding of maintaining a healthy body weight can be improved with further questionnaires. In the context of educational institutions and hospitals, information about maintaining body weight should be made available.

Keywords:- *Body Mass Index, Dietary Habits, Obesity, Underweight.*

I. INTRODUCTION

For humans, health is of utmost importance. Life extension is encouraged by a healthy lifestyle. The body mass index of an individual will benefit from eating a healthy diet. Maintaining a healthy lifestyle and a suitable body weight is the responsibility of each individual.[1] An unhealthy lifestyle will negatively impact a person's whole growth and development, including their physical, mental, social, and spiritual well-being. The global population's lifestyle has changed as a result of changes in industrialization, urbanization, finance, and market inclusivity. [2,3,4] This lifestyle change has led to dietary habit changes that require people to consume more fats, carbs, and unhealthy foods while decreasing their healthy eating habits. [5,6]

Due to the rigorous lecture schedule, being a university student has a significant impact on people's lifestyles and frequently leads to unhealthy lifestyles. In order to maintain health and avoid sickness, proper nutrition is essential. [7,8] Routines for eating are typically determined by the times of instructor lectures and the accessibility of food on or near the university campus. Due to the growth of the fast-food industry and the dearth of appropriate food courts, meal skipping, a lack of diversity in the meals provided, and snacking are common worries in colleges.[9]

➢ *Objectives*
- To calculate pupils' BMI.
- To measure pupils' eating habits.
- To examine the relationship between eating habits and body mass index.
- To determine the relationship between BMI and the chosen demographic factors.

➢ *Research Hypothesis*
• H01: There will be no significant correlation between food habits and Body Mass Index.
• H02: There will be no significant association between food habits with the selected demographic variables.

II. METHODOLOGY

The study employed a quantitative research approach with a descriptive survey research design to examine students' BMI and eating habits. The purposeful sampling strategy was used in the study with the collection of 400 samples. The research was conducted between May and June of 2019.

➢ *Ethical Consideration*
Obtained Permission from:
• Head of the institution, Principal, SSNSR, Sharda University.
• Ethical Committee of SSNSR, Sharda University.
• Head of Hostel Department – Mandela Hostel, Sarojini Hostel, Kasturba Hostel, Indira Hostel and Anandam Hostel.

➢ *Inclusion Criteria*
• Students studying at Sharda University
• Students who were present in the hostel during sample collection

➢ *Exclusion Criteria*
• Students who were not in the University
• Students who refused participation

➢ *The Tools Used in the Study to Collect the Data were the following*
• Demographic Performa
• Structured Checklist on Food Habits
• BMI (Body Mass Index)

➢ *Statistical Analysis*
With the help of descriptive and inferential statistics in the SPSS 16.0 edition, the analysis was carried out in accordance with the goals and hypotheses.

III. RESULT

Table 1: Correlation between food habits and body mass index.

Variables	Mean	SD	*P* Value
BMI	2.26	0.617	
Food Habits	42.12	3.504	0.018

(NS = non-significant, S = Significant, p<0.05=significant)

Table 1 revealed that, there is a significant correlation between food habits and body mass index where $p = 0.018$ at 0.05 level of significance

Table 2: Association between food habits with selected demographic variables.

Variables	Good Food	Average Food	Poor Food	df	*P* Value
Age in Year					
16 – 20 Years	42	123	1		
21 – 15 Years	37	120	0	6	0.84
Variables	**Good Food**	**Average Food**	**Poor Food**	**df**	***P* Value**
26 – 30 Years	20	45	0		(NS)
30 Above	3	9	0		
Gender					
Male	43	107	0	2	0.84
Female	59	190	1		(NS)
Religion					
Hindu	58	192	1		
Muslim	26	55	0	6	0.32
Christian	18	41	0		(NS)
Any other	0	9	0		
Marital Status					
Single	81	272	1	2	0.04
Married	21	25	0		(S)
Education					
Diploma	43	113	1		
Graduate	47	139	0	4	0.64
Post Graduate	12	45	0		(NS)
Course					
Technical	40	161	0	2	0.02
Non-technical	62	136	1		(S)
Type of Family					
Nuclear	63	190	1		
Joint	39	103	0	4	0.68

Extended	0	4	0		(NS)
Area of living					
Rural	30	104	0	2	0.45
Urban	72	193	1		(NS)

*Significant at 0.05 level of significance

Table 2 shows that there is a significant association between food habits with course where p<0.05 and marital status p<0.05, where the remaining variables are non-significant at p>0.05. Therefore, it is interpreted that there is a significant association between food habits and selected demographic variables.

IV. DISCUSSION

The results of the current study showed that there was no significant relationship between eating habits and demographic factors like age, gender, religion, education, types of families, and area of residence, but there was a significant relationship between marital status and course at p<0.05. Additional research done by Manal Hammed Mohammed among nursing students at Faculty of Nursing Benha University, Egypt, provided support for the current findings. The study, which involved 125 second-year nursing students, found that 62.70% of women and 54.80% of men have normal weights. There is no statistical association between gender and BMI, as evidenced by the fact that one-fourth of pupils were overweight and the remaining students were in the underweight range. 73.8% of men and 83% of women report having neutral eating habits. [10]

The study also showed that there was no significant relationship (r =0.018 at 0.05 level of significance) between eating habits and body mass index. A research study completed by Benazeera; Umarani J at a few Mangalore schools served as support for the current study. According to the survey, 30.7% of adolescents had poor eating habits whereas 69.3% of adolescents had good eating habits. According to BMI calculations, 10.66% of people were overweight, 21.44% were obese, and 34% were normal weight or underweight. Additionally, it was shown that there was no significant relationship between eating behaviours and BMI (r=0.085; p<0.05). [11]

V. CONCLUSION

In order to keep a good, healthy body and prevent diseases that can exacerbate their health difficulties, students must practice fantastic, healthy eating habits. Additionally, it was found that a number of eating habits and their connection to obesity, particularly among students, were at their highest. For this reason, it's crucial for students to maintain their schedule and eating routines despite the crammed lectures. The importance of educating, inspiring, and advising students on how to maintain a healthy body weight and great eating habits can thus not be overstated.

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