

Pattern of Food Consumption and Its Determinants among Degree Students

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Abstract:

Introduction: Junk foods seem to have engulfed every age and newest among them are adolescents. The adolescent period needs appropriate nutrition as it is a time of rapid growth and development. These are the food items which contain little or no proteins, vitamins, minerals and are rich in energy, sugar, salt and fats. Increased junk food consumption is among all age groups which is emerging as a public health challenge with a global prevalence of 70%.

Objectives: 1. To determine the prevalence of Junk food consumption among degree students. 2. To assess the pattern of food consumption among degree students and its socio demographic determinants.

Material and Methods: A cross sectional survey was conducted among two selected degree colleges of Davangere city during the month of July 2022. Students studying in the selected colleges were included in the study.

Assessment of Variables: Data was collected using a pretested and validated, self-administered and anonymous questionnaire. The study variables consisted of socio-demographic variables and patterns of food consumption which included from regular food to salty and sweet junk food, carbonated drinks, milk & dairy products, fruits and vegetables, salads and its frequency of consumption.

Results: The prevalence of junk food consumption is very high (82%) among the participants. Among them 26% of the participants are regular consumers and 56% of them are occasional consumers.

Keywords: Junk Food, Prevalence, Degree students, Pattern.

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Introduction

Junk foods seem to have engulfed every age and newest among them are adolescents. These are the food items which contain little or no proteins, vitamins, minerals and are rich in energy, sugar, salt and fats. Common food items include fast food, carbonated drinks, chips, desserts, chocolates etc. The consumption is increasing constantly.

Traditional foods have been replaced by food items that can be found in a state of ready to eat, in canned form and which are preserved for a long time. The adolescent period needs appropriate nutrition as it is a time of rapid growth and development.

They need guidance as they have stepped into a world where fast food and junk foods are available easily and they are totally unaware of the havoc they are creating for themselves. [1] Increased junk

food consumption is among all age groups which is emerging as a public health challenge with a global prevalence of 70%. There is evidence that 2.8% of the worldwide mortality can be attributed to inadequate consumption of vegetables and fruits. [2]

Junk food item consumption has been associated in the chain of natural history of most of the non-communicable diseases. Although there is enough evidence of the negative impacts of junk food on the human body, there is very much popularity among youngsters. It can lead to increased obesity, diabetes mellitus, hypertension, coronary artery disease.

Often overall nutrient intake adequacy improves with an increasing variety of foods. But the movement toward more junk food, quickly moves

beyond the optimal state to one in which diets contribute to rapidly escalating rates of chronic diseases and obesity. The increase in these diseases has been associated with increased urbanization and lifestyle diseases. [3] The concept of fast food eating has expanded into sales in schools, colleges, near campus, for most of the students the day is not complete without consuming of fast foods. This has increased the number of times people consume these type of fast foods. Diet and nutrition along with lifestyle changes are recognised as the principal environmental components affecting a wide range of diseases of public health importance. [4]

Objectives:

1. To determine the prevalence of Junk food consumption among degree students.
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Material and Methods

A cross sectional survey was conducted among two selected degree colleges of Davangere city during the month of July 2022. Students studying in the selected colleges were included in the study. The participating colleges were selected based on the prior appointment taken few days before conducting the study. The protocol was the same across the two colleges. Around 200 students were given a self-administered questionnaire towards the end of a course lecture. Students were informed about the objectives of the study and each question was explained to them. It was informed to the students that by completing the questionnaire they provided their informed consent to participate in

the study. Participation was voluntary and anonymous and withdrawal from the study was possible at any stage.

Assessment of Variables: Data was collected using a pretested and validated, self-administered and anonymous questionnaire. The study variables consisted of socio-demographic variables and patterns of food consumption which included from regular food to salty and sweet junk food, carbonated drinks, milk & dairy products, fruits and vegetables, salads and its frequency of consumption. Food items consumption frequency was assessed using a five point likert scale where 1 point score was allotted if not consumed within the last month and 5 point score was allotted if consumed several times a day. Similarly once daily, several times a week, 1-4 times a month was allotted 4, 3, 2 was used. An operational definition of regular consumers of junk food was defined as those consumers whose consumption of any type of junk food was more than or equal to 3 times a week and occasional consumers whose consumption of junk food was < 3times a week.

Statistical Analysis: The collected data from the study variables were entered into an excel sheet and transferred, analysed using SPSS software. Appropriate descriptive statistics such as percentages, mean and standard deviation was used to describe the study variables. Appropriate statistical tests like chi square test were used to find the association between junk food consumption, food pattern and socio-demographic variables. P value of <0.05 at 95% confidence limits was considered to be statistically significant.

Results:

Table 1: Prevalence of Junk food consumption among Study participants

Variable	Frequency	Percentage
Regular consumers(Junk Food)	51	25.5
Occasional consumers (Junk Food)	112	56
Total Consumers	163	81.5
Total	200	100

Table 1: The prevalence of Junk food consumption is very high (82%) among the participants. Among them 26% of the participants are regular consumers and 56% of them are occasional consumers.

Table 2: Pattern of Food Consumption among Study participants

Variable		Regular Consum-ers	Occasional Consum-ers
Salt Junk food	Pizza/ Burger/Sandwich/others	14(27)	56(50)
	Noodles/Pasta/Maggie/others	42(82)	65(58)
	Panipuri/Bhel/Shev/Dhai Puri/others	45(88)	78(70)
	Samosa/Kachori/Wadapav/Pav Bhaji/others.	12(23)	34(30)
	Soups	12(23)	35(31)
	Chips/Kukure/Fries/others	35(69)	40(36)
	Manchurian	34(68)	45(40)
	Mirchi Bhajji/Pakoda/others	41(81)	46(41)
Puffs/Patties/Khari/others	23(45)	34(30)	

	Kebabs	19(37)	12(11)
Total	Total	51(100)	112(100)
Sweet Junk food	Cakes	12(23)	46(41)
	Ice creams	35(69)	65(58)
	Chocolates	43(84)	76(68)
	Pasteries	12(23)	23(20)
	Cold drinks	46(90)	68(61)
	Deserts	43(84)	69(62)
	Candies	23(45)	10(9)
Total	Total	51(100)	112(100)

*multiple choices

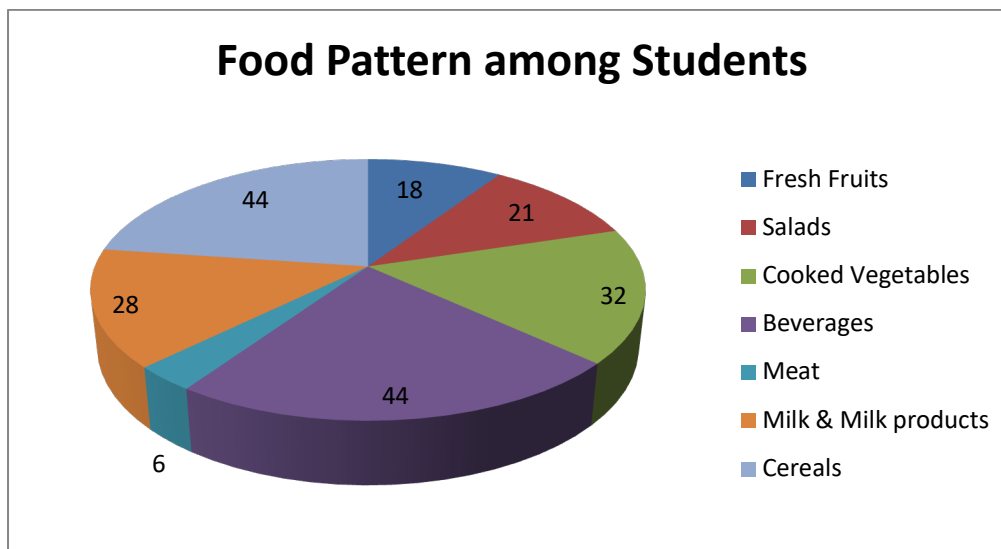


Figure 1: Pattern of food consumption among degree students

Table 2 and Figure 1: The above table gives the pattern of consumption of different type of salty and sweet junk food.

The most commonly (88%) eaten salty junk food item among regular consumers is street food like panipuri, mirchi bajji, pasta and noodles. Chocolates, cold drinks are the most commonly

eaten sweet junk food among the students which is around 90%. It is the same items eaten by the occasional consumers also.

Fresh fruits and vegetable consumption is only among 18% and 32 % of the students respectively. Consumption of beverages like tea coffee is also high (44%) among the students.

Table 3: Socio-demographic determinants of Junk food consumption among students

Variables		Regular Consumers	Occasional consumers	Total consumers
Age*	18-20	46	109	155
	21-27	05	03	08
Gender*	Male	09	75	84
	Female	42	37	79
Residence*	Urban	32	67	99
	Rural	19	45	64
Place of living	Hostelite	20	11	31
	Day scholar	31	101	132
Type of Family	Nuclear	49	104	153
	Joint	02	08	10
Socio-Economic Status	Upper Class	28	63	91
	Lower Class	23	49	72
Fathers Education	Illiterate	13	17	30
	Literate	38	95	133
Mothers Education*	Illiterate	23	23	46
	Literate	28	89	117
Fathers Occupation	Unemployed	02	03	05

	Unskilled	14	10	24
	Semi-skilled	18	0	18
	Skilled	17	56	73
	Professional	0	03	03
Mothers Occupation	Unemployed	42	94	136
	Unskilled	02	13	15
	Semi-skilled	0	0	0
	Skilled	07	05	12
	Professional	0	0	0
Total	Total	51	112	163

* $p < 0.005$ for regular consumers

Table 3: The above table described the association of age, gender, place of residence and mothers education status played a significant role in child's regular consumption of junk food

Discussion:

This cross sectional study was suggestive of high prevalence of salt and sweet junk food consumption among students which is also similar to the results of a study conducted by Oyedunni, [5] where 81% was the regular prevalence of junk food consumption, 22% of them consumed weekly, 18% of the participants thrice a week. Another study reported 88% of the student's substituted fast foods for breakfast, lunch or dinner. [4] Same study also reported that around 43% of the participants consume fast food every day.

Most of them consumed food item which is rich in carbohydrates, fats, sugar. [4] In a study conducted in Bellary 65% of the participants consumed junk food, > 4 days in the last week. Around 60% consume salty snacks, 59% consume sweet junk. [6] 74% consumed junk food more than 3 times a week, similar results were observed in South Africa, Kuwait, USA, Himachal Pradesh, Gujarat and South India. [7-11]. In the present study fruit consumption was only among 18% of the participants which was very less when compared to other study conducted by Hiregoudar et al., where 34% of the participants consumed fresh fruits which was around 3 to 4 times a week, 25% consumed > 6 to 7 times a week. [6]

Our study described that most liked food item is cakes (33%) among males, 39% of females consumed chocolates. Other studies also showed, female students consumed more chocolates. [12,13] 34% of the males consumed more salted junk food (chips, samosa, kachori) females showed more affective towards panipuri, sevपुरi which is around 24%.

Males consumed more fish, white bread, rice, carbonated beverages, fruit juice, fast food, chips than females. Females consumed more brown bread, meat, grains, olive oil, fruits and raw cooked vegetables. [14] Hot beverages and sweet were equally consumed by males and females which is also similar to our study results. Our study described a statistically significant association with age, gender, place of residence and mother's

education status with regular consumption of junk food consumption. Association of fast food consumption with age was seen in a study done in USA [15]. Similar results were seen in a study done in Kuwait [9] There was no gender difference, religion, area of residence about consuming junk food in a study conducted in Kashmir [16], Himachal Pradesh [11]. Lower income level students and those from the Lebanese public university were more likely to consume a mixed dietary pattern, while those of higher income level and in private universities were more likely to consume either a vegetarian or low calorie diet. Our study reported the same. Increased fast food consumption is significantly associated with age, sex, family income and residence as reported by a study conducted by Hiregoudar et al., [6]

Students living with parents were 1.64 times more likely to consume junk foods. Peer pressure was more influencing they were likely to consume 2 times more when with friends. Our study reported that students staying at hostels had higher levels of consumption of fast food or junk food where peer pressure can be the reason. Another study highlighted the parental role in reducing the consumption of snacks Students living with parents were 1.64 times more likely to consume junk food. Peer pressure was more influencing; they were likely to consume 2 times more when with friends. [17]

Conclusion

Our study showed a higher prevalence of Junk food consumption, less consumption of fruits and vegetables. Consumption of beverages like tea & coffee is also high among students. Younger age, female students, coming from rural or urban area and mother's literacy status played a significant role among students in regular consumption of junk food among students.

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