

MEDICAL COMPLICATIONS DUE TO CONSUMPTION OF STREET FOOD AMONG COLLEGE GOING STUDENTS

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Abstract

Street foods become most popular food since last two decades. These foods are readily available at low cost on public places i.e.; school premises, in colleges campus, parks, market area and theatres. These foods are better known as ready to eat foods. Contamination through ready-to-eat foods and beverages sold by street vendors and hawkers has become a global public health problem. The present study aimed to assess medical complications due to consumption of contaminated street food among college going girls. Total 100 students were selected according to gender and age distribution, education status and socio economic status. All the results were statistically analysed using SPSS software. The result reveals that 12% students had chronic medical complications like abdominal pain; 14% had headache and 8% cases of jaundice. The study recommends periodic monitoring of quality of street food by food and quality board to ensure positive health of people. Similarly awareness program should be organised by nutrition departments highlighting the effects of street food on health.

Key words: street food, educational status, economic status, food habits, medical complication.

Introduction

Urbanization and modernization opens the door for people to work away from home and manages their life style accordingly. In last two decade the structure of families has also been changed, as a result most of the women became working women which enhances the eating outside the home. Street foods are the resultant of changing life style of the people.

Street food is food, obtained from street side vendors at popular public places in a potable stalls. In last two decades the street food establishments have received welcome by people as these foods are economical, tasty, and provide nutrient to the millions of people. These foods became as a major source of income for many people. These foods are better known as ready to

eat foods. Apart from its popularity among people, it is a major source of bacterial contamination. Contamination through ready-to-eat foods and beverages sold by street vendors and hawkers has become a global public health problem. Several studies have confirmed the presence of pathogens such as E-coli salmonella, shigella vibriocholera and enterotoxigenic staphylococcus in high risk foods such as bhel, pani-puri, chat, juices, salad and sandwich^(1,2,3).

Street foods are popular in Raipur city. A large of population devour this daily, several studies related to street food and its effect on health have been carried out in other states but no such work has been carried out in Raipur was city. Keeping this view in mind the present study planned to collect the consumption pattern of street food and its effect on health.

Methodology

Selection of sample – 100 college going students and 200 vending stalls were randomly selected from Raipur city for the proposed study.

Determination of consumption pattern of street foods – Eight commonly consumed street foods and vending stalls including chat, idli, pakora, samosa, fruit-juice, bhel, ice-candy and sandwich were selected for the present study. A pretested questionnaire was used to collect the information regarding demographic profile and facilities provided by vendors at stall were recorded. At the same time student's demographic profile, student's street food consumption pattern, their knowledge about the street food hygiene and rate of health problems due to street food was collected to obtain relevant findings.

Statistical Analysis

All the data were statistically analysed by using SPSS software.

Results and discussion

Figure 1. Educational status of street food vendors

Characteristics of the subjects

Table no. 1 shows the age wise distribution of selected students. out of 100 selected students 20% subjects belonged to 18-19, 19-20, and 21-22 years age groups ,where as 10% each subjects belonged to 20-21 years 22-23, 23-24 years age group.

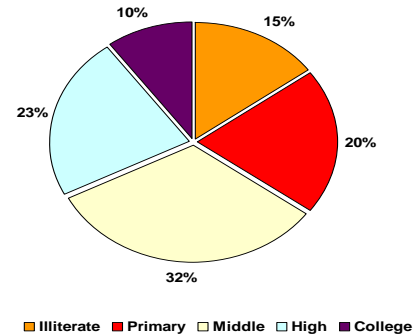


TABLE NO. -1

Distribution of student as per age

S.NO.	Age group	No of se-lected student	%
1.	18-19	20	20%
2.	19-20	20	20%
3.	20-21	10	10%
4.	21-22	20	20%
5.	22-23	10	10%
6.	23-24	10	10%
7.	>25	10	10%
	Total	100	100

TABLE NO. 3

s. no.	Socio-economic status	No. Of selected students	%
1.	High socio - economic status	80	80%
2.	Middle socio-economic status	20	10%

Table 3 shows the socio- economic status of the selected student's. The result reveals that majority 80(80%) of students were belonging to high socio - economic background, the rest were belonging to middle socio-economic status.

TABLE NO. 4

Distribution showing the food habits of select student

S.NO.	Habit	NO. students	Percent
1	Vegetarian	20	20%
2	Eggatarian	20	20%
3	Non vegetar-ian	60	60%
	Total no.	100	100%

Educational status of subjects

The educational status of the selected students shows that out of 100 students, 80 (80%) were having their under graduate degree, where as 20 (20%) were post graduate students.(Table N-2) similarly educational status of street food vendors shows that 15% (30) vendors were illiterate, 20%(40) of them had primary level education, 32.5% (65) had middle level education, 22-5%(45) had high school and only 10% (20) had appeared in college.(figure -1)

TABLE NO-2 Educational status of the students

Educational status	No of selected student	%
Under graduated students	80	80%
Post graduate student	20	20
	100	100%

Food handling practices of street food vendors

Based on observation, about 74% street food vendors prepare their food in unhygienic condition as their stalls were near the open drainage; hence they dispose their garbage just near the stalls .Prominent stinking smell was felt in 122(61%) cases. It was observed that most of the vendors threw waste water and leftover food just beside the stalls making the environment unhealthy. The overall result reveals no significant relation between education of vendors and environmental hygiene of surrounding.

Environmental surrounding of the street food units

83% vendors had covered the water container and food where as 17% did not cover the water and food. About 160 (80%) vendors had a provision of dustbin for

waste disposal where as 40(20%) did not provide it. in 80% cases the dustbin was not handled properly by the vendors. All the vendors had a cloth for multipurpose activities, so they were found unable to maintain the hygienic conditions at the work place.

65% vendors expressed that they clean their unit only once a day. The overall hygienic conditions were far from level ,as we know most of vending area are market, school, shop and road side where the chances of contamination is high. There is a need of training programme based on unit hygiene .The need of training was also suggested by Easwaran ⁽⁵⁾, Leon ⁽⁶⁾ and Shekhar ⁽⁴⁾.

TABLE NO. 5 HYGIENIC PRACTICES AND PROVISION OF THE FACILITIES NEAR VENDING UNIT

Type	Category	Number	%
Water facility	Municipal	159	79.5
	House	41	20.5
Protection of food from dust & flies	Yes	79	39.5
	No	121	60.5
Preventive measure for fly and mosquitoes	Y	150	75
	No	50	25
Cleaning of unit	Y	200	100
	N	-	-
Washing plates	Using plates/ glasses are washed dipped in same water again & again	66	33
	Change of water after 2 wash	52	26
	Change of water after 10-15 wash	45	24.5
	Vessels rinse in clean water	12	6
	Inadequate facility	25	12.5
Preventive measures for removing dust at work place	1. Water sprinkle	127	63.5
	2. Dusting	24	12
	3. Nothing	42	21
	4. Doubtful	07	3.5
Drinking water facility	Covered	166	83
	Un covered	34	17
Waste disposal	Any where	40	20
	Basket provided	160	80

Cleaning of unit	Once	130	65
	Twice	70	35
Separate napkin	multipurpose	200	100
Cleaning of wet unit	Napkin dry	80	40
	Wet	120	60
Drying of the wiping cloth	Sun	145	72.5
	Shade	55	27.5

Table no. 6

Medical complications due to consumption of street food in selected college going students

Complication	No	%
Abdominal pain	12	12
Headache	14	14
Jaundice	8	8

Table no. 6 depicts medical complication arising because of consumption of street food .the data shows that 12 (12%) subject had repeated complaint of abdominal pain,14(14%) had problem of headache after consuming street food and only 8 (8%) subject had problem of jaundice. The major cause of medical complaint was associated with poor sanitary hygiene surrounding the vending stall and open water container. Several studies carried out on this topic support the results ^(7, 8).These diseases are water born diseases hence it has been recommended to vendors that water pot (steel drum) should be covered and clean.

Discussion

The present study was conducted at Raipur city to assess the effect of consumption of street foods on health and hygiene status of people. The results of the present study reveal that most of the health problems were due to unhygienic environment. According to FAO ⁽⁸⁾ food handlers should have the necessary knowledge and skills to enable them to handle food hygienically. Systems should be put in place to ensure that food handlers remain aware of all procedures necessary to maintain the safety and suitability of food. Similarly FAO recommends special training programme for street food vendors.

It was observed that most of the vending stalls were near open drainage and surrounded by unhygienic area. Food safety measures were not followed by vendors. Several studies carried out on street food support the above results. ^(9, 10, 11,12) .It can be said that training

programmes should be organised for vendors to maintain food safety.

It was noticed that cooked food was not properly covered by vendors which could result in food contamination due to dust. Water facility was not satisfactory. According to a research carried out by Kinton and Ceserani⁽¹³⁾ all types of food items should be kept covered as much as possible to prevent contamination from dust and flies. Cleaning of utensils and food preparation requires running water. Without enough water above practices cannot be done properly. So vendors should manage sufficient potable water.

Unhygienic practices by vendor's may cause food borne illness in young consumers. Cases of jaundice, stomach pain and abdominal problem were found to be common among students. The rate of these health problems was high in rainy and summer.

Conclusion

Street foods are low budget delicious foods hence it cannot be banned but the unhygienic environment near vending stall, poor personal hygiene of vendor, lack of knowledge about food safety and food preparation may be major cause of food borne diseases in consumers. The study recommend both vendors and consumers should follow healthy hygienic practices to ensure good health. Clean potable drinking water, covered waste disposal as well as preventive measures for insects should be checked in fixed interval. There should be one department in corporation who examine the quality of food, vended in a street. There should be established and adequate laboratory facilities for checking food borne diseases. The study also recommend strict guidelines for vendor, where guilty should be punished for selling unhealthy contaminated food items.

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