

Consumer Behaviour for Street Fried Foods – A Study in East Delhi, India

POOJA CHAUHAN*¹ AND SUKHNEET SURI²

¹Ph.D. Research Scholar, University of Delhi, New Delhi (India)

²Professor, Vivekananda College, University of Delhi, New Delhi (India)

ABSTRACT

Fried foods sold by mobile food vendors are rarely associated with good health, yet their ubiquitous presence indicates the preference for such foods. Fried foods are high in energy but are often low or lacking in vitamins, minerals, fibre and amino acids. The present study was done to assess the knowledge and practice related to street fried food consumption by consumers.

Material and methods: Random sampling method was adopted based on inclusion exclusion criteria. Structured questionnaire along with unstructured interview were used to collect the data. Total 90 consumers from east Delhi were included in the study.

Result: 73.3% (n-66) men and 26.7% (n-24) women took part in the survey. Majority of the participants were educated; being post graduates (45.6%) and graduates (44.4%) residing in east part of Delhi. It was found that most suitable oil to use for frying as reported by consumers was mustard oil (57.8%). It was interesting to find that 53.3% consumers spent INR 201-300 and above per month on fried street foods. The examination of knowledge of consumers brought out that majority 63.3% were unaware about the right amount of fats/oil an adult should consume everyday to maintain good health.

Conclusion: Though Fried foods are tasty they have low nutritive value and high calories. Nutrition counseling regarding the significant of a balanced diet and health concern associated with more frequent consumption of fried food may help to curb problem unhealthy lifestyle.

Key Words : Consumer, Street food, Fried food, Reuse oil, Consumer behavior

INTRODUCTION

Consumer behaviour is influenced by several factors; availability, accessibility, affordability being most important. There is a rising trend among the newer generation about street food (Ashakiran and Deepthi, 2012). Consumer behavior regarding fried street foods is an indicator of their level of awareness and sensitivity towards food safety. Identifying the consumption pattern of consumers can provide a ground for improving the production, distribution and accessibility of safe foods to the consumers. The street food vendor were lacking a lot of personal hygiene standards and they were handling money with the same hand from which they serving food which

might be the most dominated reasons for food contamination (Sabbithi *et al.*, 2017). It would also be useful for policy making aimed to target health problems associated with fried food consumption from the unorganized mobile food sector and also there is a strong need for food safety and private hygiene of the unorganized mobile food sector. The objective of this research was to study the knowledge, attitude and eating behavior associated with consumption of fried foods being sold by street food vendors.

METHODOLOGY

Data Collection:

A total 90 adolescent and adult consumers were

randomly enrolled based on their informed written consent. Questionnaires were developed, pretested and utilized for gathering data on food safety knowledge and practices of consumers eating fried foods sold by the unorganized food sector. Questionnaire was supplemented with unstructured interview method. Hindi language was used to develop rapport and to gather the necessary data.

Data on socio-demographic details, gender, age, education, and the respondent’s self-reported financial status were gathered. Information was collected on consumer knowledge, behavior and attitude toward food sold by street vendors. The frequency of consumption of food from unorganized food sectors outlets, factors influencing the use of such facilities, choice of street food products, and assessment of hygiene and safety factors in the outlets, as well as the opinion of consumers regarding the street food was also studied.

Data Analysis:

Data gathered were coded and analyzed using the statistical package for social sciences (SPSS). The analysis of variance test and other suitable tests were used.

RESULTS AND DISCUSSION

Data on socio demographic profile of the respondents (90 consumers) was gathered. 73.3% (n-66) men and 26.7% (n-24) women took part in the survey. Majority of the participants were educated; being post graduates (45.6%) and graduates (44.4%) residing in east part of Delhi. Details are given in Table 1.

54.5% customers had average total family monthly income between INR 49,962/- to 99,930/- per month. Thus, economic status had an influence on eating preferences for street foods. Upper low and lower middle income group had greater preference for street foods.

Consumer knowledge about fried food safety:

Since both quantity and quality of oil/fat consumed by an individual has an impact on his/her health, this study assessed the knowledge of consumers about daily average oils/fat requirement of Indian adults, fats/ oils most suitable for frying, risk of the diseases associated with frequent consumption of fried foods, safety aspects related to reuse of used oil for frying and/ or other purposes was assessed as shown in Table 2.

Knowledge regarding daily average amount of oils/ fats required by Indian adults was incorrect among

Table 1 : Demographic data for respondents in East Delhi		
Delhi (n-100)		
Features of the Population	Group	Percentage of Respondents n (%)
Gender	Male	66(73.3)
	Female	24(26.7)
	Illiterate	00
	Primary School	00
Educational qualification	High School	9(10)
	Graduate	40(44.4)
	Post Graduate	41(45.6)
	Professional (White collar)	30(33.3)
	Semi- Professional	9(10)
Profession	Clerical/ shop owner/ farm	3(3.3)
	Skilled Worker	6(6.7)
	Semi- skilled Worker	00
	Unskilled worker	00
	Unemployed	5(5.6)
	Student	9(10)
	Other	28(31.1)
Monthly Income (INR)	10,002-29,972	10(11.1)
	29,973-49,961	21(23.3)
	49,962-74,755	25(27.8)
	74,756-99,930	24(26.7)
	99,931-1,99,861	10(11.1)

Table 2 : Knowledge of the consumers about fried food

Sr. No.	Knowledge of the consumer about fried food	Consumers Responses (N-90)	
		Yes- n(%)	No-n(%)
1.	Daily average oils/fats requirements of Indian adults	33(36.7)	57(63.3)
2.	Oil/ fat most suitable for Frying		
	• Mustard Oil	52(57.8)	38(42.2)
	• Sunflower/Soyabean Oil	20(22.2)	70(77.8)
	• Rice Bran Oil	16(17.8)	74(82.2)
	• Olive Oil	27(30)	63(70)
	• Groundnut Oil	15(16.7)	75(83.3)
	• Ghee	17(18.9)	73(81.1)
	• Palm Oil	3(3.3)	87(96.7)
	• Vanaspati (Hydrogenated fat)	3(3.3)	87(96.7)
3.	Eating fried food increase the risk of diseases	88(97.8)	2(2.2)
4.	Common diseases associated with frequent consumption of fried foods		
	• Diarrhea	31(34.4)	59(65.6)
	• Heart diseases	52(57.8)	38(42.2)
	• Respiratory system diseases	20(22.2)	70(77.8)
	• Skin	16(17.8)	74(82.2)
	• Throat	17(18.9)	73(81.1)
	• Indigestion	56(62.2)	34(37.8)
	• Gastric	78(86.7)	12(12.3)

majority of the consumers as 63.3% were unaware about the right amount of fats/oil an adult should consume everyday to maintain good health. Oil most suitable to use for frying as reported by consumers was mustard oil (57.8%) followed by olive oil (30%), sun flower/ soyabean oil (22.2%) and ghee or clarified butter (18.9%). Majority of the consumers (97.8%) were aware that regular consumption of fried foods increases the risk of diseases. However, they were not aware about the particular diseases associated with frequent consumption of fried foods. Though the consumers were aware about the effect of frequent consumption of fried foods, it had not influenced their attitude and practices favourably.

Practices of consumers related to fried food consumption:

The practices of the consumers studied during this survey included; the monthly expenditure on purchase of street food, frequency of fried food consumption, and preferred number of frying (single fried/double fried). Of the 90 consumers interviewed, on an average 28.9% consumers spent INR 201-300 per month as they ate fried street foods regular/daily. 24.4% spent INR 301 and above per month on purchase of fried food from SFVs. Consumers (11.1%) who took fried foods occasionally were found to be spending INR 50 – 100 per month only (Table 3).

Table 3 : Practices of the consumers related to consumption of fried foods from unorganized food sector

Sr. No	Consumer’s practices	Consumer response n-100 (%)
1.	Money spent on consuming fried food (monthly)	
	• INR. 50 and Below	5(5.6)
	• INR. 51-100	10(11.1)
	• INR. 101-200	15(16.7)
	• INR. 201-300	26(28.9)
	• INR. 301 and Above	22(24.4)
	• None*	12(13.3)
2.	Frequency of Fried Food Consumption	
	• Daily	4(4.4)
	• 2-3 times a week	24(26.7)
	• Once a week	13(14.4)
	• Once in fortnight	5(5.6)
	• Once in a month	44(48.9)
3.	Preferred No. of frying	
	• Single Fried	83(92.2)
	• Double Fried	7(7.8)

*Consumers not spending money from their pocket for purchasing street fried food

Our survey indicated the 26.7% participants consumed fried food on alternate days. Similar results have been reported by Vidya *et al.* (2015), wherein 25% of the study participants consumed fried foods on an average of two to four times a week. In our survey 48.9%

consumed street foods only once a month. Similar results have been given in a study conducted on students which found that frequency of fast food consumption was once

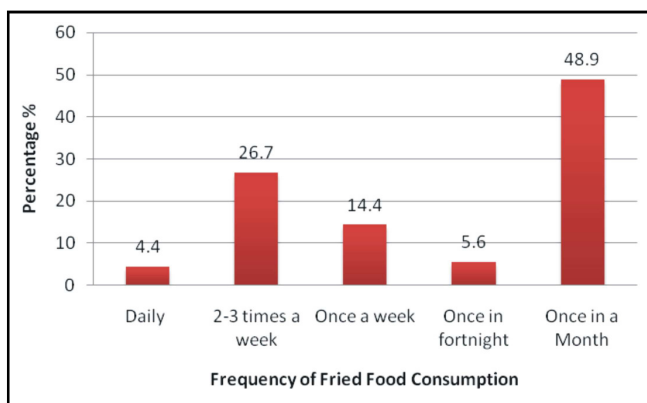


Fig. 1 : Frequency of fried food consumption

in month by 41.9% participants (Khongrangjem *et al.*, 2018) (Fig. 1).

Frequency of fried food consumption and monthly spending not found statistically significant but can be observed by the Table 4 that, the monthly spending on fast food is more those eat fast food once in a month.

Significant relation was not found between fried food consumption and the monthly spending on fried food by consumers (Table 5).

Fig. 2 indicates the practices of the consumers related to consumption of fried foods from street food vendors. It was observed that majority (93%) of the consumers preferred to consume food which had been fried only once. Very few consumers preferred to consume food that had been fried twice.

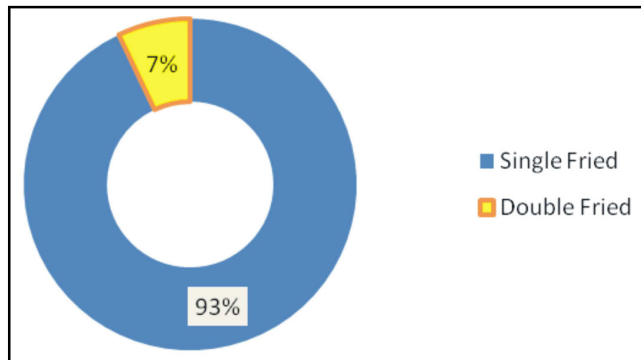


Fig. 2 : Preferred Number of Frying

Discussion:

The study documents the perspectives of the consumers in terms of the knowledge and practices with respect to consumption of fried street foods. Knowledge about quantity and quality of fat was not satisfactory. The examination of knowledge of consumers brought out that majority 63.3% were unaware about the right amount of fats/oil an adult should consume everyday to maintain good health. Most of the consumers (97.8%) knew about high risk of diseases associated with the consumption of fried foods. They were however not very sure about the type of oil in which repeated frying operations could be carried out. Even though some consumers were aware about the type of oil and good frying practices that help in production of safe street foods, yet they were consuming fried foods from vendors with compromised practices.

Therefore, there is scope for generating greater awareness regarding risk factors associated with fried food consumption and misuse of frying oil. The aware

Table 4: Frequency of Fried Food Consumption * Monthly Spending on Fast Food

Frequency of Fried Food Consumption	Monthly Spending on Fast Food						Total
	Rs. 50 and Below	Rs. 51 - 100	Rs. 101 - 200	Rs. 201 - 300	Rs. 301 and Above	None	
Daily	0	0	0	1	2	1	4
Once a Week	0	2	5	5	8	4	24
2 -3 Times a Week	0	0	0	10	2	1	13
Once in Fortnight	1	1	1	0	2	0	5
Once in a Month	4	7	9	10	8	6	44
	5	10	15	26	22	12	90

Table 5 : Frequency of Fried Food Consumption * Monthly Spending on Fast Food

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	29.99	20	.070

consumers can be potential educators who can inculcate knowledge and right practices related to fried food safety among food vendors and peers. There is need for developing and implementing fried food safety educational programs that cover key concepts like frying practices, reuse of fried oil for further frying, fried food consumption for reducing the incidence of associated diseases and the frequency of serious consequences.

Conclusion

The study was undertaken to contribute to the understanding of the current knowledge, and practices of consumer related to safety of fried food consumed from food vendors of unorganized food sector. Knowledge and practices scores of the consumers were found to be lacking in many aspects such as frequent fried food consumption is high among the consumers, greater preference for fried food as compared with food prepared by other cooking methods. There is a need to spread awareness related to food safety to ensure that correct practices are inculcated in the consumers.

REFERENCES

- Ashakiran, S. and Deepthi, R. (2012). Fast foods and their impact on health. *JKIMSU*, **2** : 7-15.
- Khongrangjem, Tenneychell, Dsouza, Marita, Sushma, Prabhu, Priya, Dhange, Basappa, Vijay, Pari, Vrindha, Ahirwar, Kumar, Sunil and Kumar, Sumit (2018). A study to assess the knowledge and practice of fast food consumption among pre- university students in Udupi taluk, Karnataka, India. *Clinical Epidemiology & global Health*, **6** :172-175.
- Sabbithi, A., Reddi, S.G.D.N. L., Naveen, Kumar, R., Bhaskar, V., Rao, Subba, Rao, G. M. and Rao, V.S. (2017). Identifying critical risk practices among street food handlers. *British Food J.*, **119**(2): 390-400.
- Vidya, B., Damayanthi, M.N., Sharada, R., Manjunatha, Shashikala (2015). Junk food consumption pattern and obesity among school going children in an urban field practice area: a cross sectional study. *J. Evid. Based Med. Hlthcare*, **12** : 1845-1851.