Consumption of Street Foods - Pre Corona Days

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Abstract: Street foods of different categories –breakfast foods, chaat items and items at curry point have become very popular and increasing in cities over the years. Consumption pattern of street foods was collected from 220regular visitors using a structured questionnaire, Three street vendors, one from each category were interviewed regarding the knowledge of safety measures and the extent of usage. The respondent group consisted of Hindus 76.5 percent and 23.5 percent Muslims. 85.7 percent are nuclear families and 85.7 percent are non –vegetarians. Respondents age ranged between 20 years to 80 years. Family size ranged between 2 members to 10 members. Consumption of breakfast foods likeidly, idly and vada and dosa daily was reported by 5.2, 5.7 and 7.8 percent respectively. Among the chaat items, chole and panipuri are most preferred by 50.1 and 39.5 percent respectively. Samosa and mirchibajji are the two snack items consumed by 50 percent respondents. At the curry point counter any one of several items displayed, is picked daily by 50 percent of respondents. In general, eating at the street food stalls has become common and is increasing, . It is found that age or income is not a barrier.

Keywords: street foods, breakfast foods, chaat, curry point, vendors

1. Introduction

Street foods are ready to eat foods or drinks sold by hawkers, vendors in a street or public place such as a market, fair or a school, offices etc. It is often sold from a portable food booth, food cart, or food truck. Street foods are enjoying increasing patronage due to industrialization, which is forcing many city dwellers to eat their major daily meals out of home (1) street food vending has become a common feature in most cities in developing countries (2), In Hyderabad every colony has several carts with street foods, added to this, curry points have become very popular and are fast growing.

As the products are sold at affordable prices, street foods are preferred in spite of knowing the food safety hazards, (3, 4), better taste, affordability, accessibility were reasons for street food purchase. (6-8). In some places street foods are purchased daily and formed an integral part of daily diet (9-11). The procurement habits of foods items by street vendors differed according to size of establishment, type of vendors, ownership and average monthly income. Hygiene aspects of street foods is a major concern (12) Studies conducted thus far concentrated on street foods mostly related to snack items (13, 14). Studies related to breakfast foods, and on curry points are scanty. Studies on the frequency of consumption and cleanliness of the counters in Telangana are scanty. The present study is conducted to assess the frequency of consumption of street foods in the present scenario.

2. Methodology

Cross sectional study was conducted (May to October 2019). The foods sold by the street food vendors are categorized as:

- a) Chat items
- b) Snacks
- c) Curry point -Meals and meal items
- d) Breakfast foods
- e) Responses of street food vendors of each group

Selection of customers: 220 customers were randomly selected to elicit information on frequency of purchase. To

determine the preferences of foods a structured questionnaire was prepared in English and was pretested in a group of 10 adults as main study group are adults.

A list of breakfast foods, chaat items and items sold by the curry point is made and frequency of consumption of these foods is collected. Other information like age, type of diet, type of family and frequency of purchase /preferred is collected.

Selection of Street Vendors: one stall from each category who is willing to share the required information was randomly selected. Information on the type of customers, their requirements, approximate sales per day, awareness of hygiene, knowledge about the rules or regulations related street foods were recorded.

Statistical Analysis: Chi square test, one way Anova and percentages were done.

3. Results and Discussion

Demographic Profile: Distribution of families by religion, type of family and type of diet are given in the Table 1 Hindus constituted 76.5 percent and Muslims 23.5 percent. Most of the families are nuclear (85.7 percent), joint families or families with one of the in-laws are to the tune of 14.3 percent, 85.7 percent are non-vegetarians while only 14.3 percent are vegetarians.

Table 1: Particulars of Consum	iers
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	Tuble If I diffeduals of Consumers					
	No.	%				
Hindus	176	76.5				
Muslims	54	23.5				
Nuclear	197	85.7				
Joint	33	14.3				
Vegetarian	33	14.3				
Non Vegetarian	197	85.7				

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Table 2: Age wise Distributi	ion of Respondents
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		1
Age in Years	No	Percent
<20	6	2.6
21-30	58	25.2
31-40	68	29.6
41-50	62	26.9
51-60	26	11.3
61-70	8	3.5
71-80	2	0.9
	230	100

Age of consumer's eating at these street food stalls ranged between 20 to 80 years (Table2). Majority are in the three age groups between 21-50 accounting to 81.7 percent while the percent distribution below 20 years is just 2.6 percent and above 51 years 15.7 percent.

Total numbers of members in each family varied from 2 to 10 members, (Table 3). Most of them are with 3, 4 or 5 members indicating one or two children per family. Families with more than seven are the joint families among Hindu while in Muslims those with more than seven members are nuclear families having around seven children.

Table 3: Family Size of Respondents

No.	Hiı	Hindus		Muslims		otal
	No	%	No	%	No	%
2	25	14.2	4	7.5	29	12.6
3	45	25.6	5	9.3	50	21.7
4	61	34.6	20	37.1	81	35.3
5	40	22.7	16	29.6	56	24.3
6	3	1.7	5	9.3	8	3.5
7	1	0.6	1	1.8	2	0.9
8	0	0	1	1.8	1	0.4
9	0	0	1	1.8	1	0.4
10	1	0.6	1	1.8	2	0.9
	176	100	54	100	230	100

Family members are grouped under Per Consumption Unit Highest percent (69.8) of Hindus are in the 2.1 to 4.0 PCU group while in Muslims 59.2 are in the group of 3.1 to5.0.In the higher ranges of 5.1 to 9 PCU, the percent distribution is 5.7 and 22.3 in Hindus and Muslims respectively

Consumption of Chaat items: Chaat items are mostly north Indian type, like chole (plain chole, or chole - cutlet or chola -samosa), PaniPuri, Ragada, PavBhaji, Dahipuri and chaat. (89.7 % expressed eating chole plain or with cutlet or samosa, once a week or most often, they expressed that frequency will be more in summer than in winter. Panipuri is taken by 28.3 percent, once a week and 39.5 percent took most often.

Table 4: Frequency of Consumption of ChaatItems

		1	- · · · · · ·		
Chat	2/wk	1/wk	Most often	Rare	Total
Chole	10.0 (23)	39.6 (91)	50.1 (116)	0	100 (230)
Panipuri	10.9 (25)	28.3 (65)	39.5 (91)	21.3 (49)	100 (230)
Ragada	6.5 (15)	10.0 (23)	38.3 (88)	45.2 (104)	100 (230)
PavBhaji	4.3 (10)	6.5 (15)	34.4 (79)	54.8 (126)	100 (230)
DahiPuri	6.1 (14)	1.3 (3)	33.9 (78)	58.7 (135)	(100 (230)
Chaat	10.5 (24)	6.9 (16)	12.6 (29)	70.1 (161)	100 (230)
P value 0	77				

' value (). / /

Table 5: Consumption of Snacks							
Snacks	2/wk	1/wk	often	Total			
Aloo Bonda	0	52.2 (120)	47.8 (110)	100 (230)			
Samosa	19.6 (45)	0	80.4 (185)	100 (230)			
MirchiBajji	0	47.8 (110)	52.2 (120)	100 (230)			
Sev	9.1 (21)	56.5 (130)	34.4 (79)	100 (230)			
Jelebi	0	0	100 (230)	100 (230			

Items like aloo bonda, samosa, mirchibajji. Sevor jelebi are consumed in the evening as a snack. Frequency of consumption of these snacks are given Table 6. Somosa and Sev are taken twice a week by 19.6 and 9.1 percent, while aloo bonda, mirchibajji and sev are taken once week by 52.2 percent, 47.8 percent, and 56.5 percent respectively. Jelebi is consumed hot, whenever it is prepared fresh.

Purchase of Items from Curry Points: Curry points have become very popular, some sell packed items on the road side while others through a permanent enclosure. Mobile Vans bring meals for lunch only (vegetable biryani, egg biryani or chicken biryani with raita or a curry) near to offices or colleges. (Table 6).

Daily		Regularly		Total	
%	No.	%	No	%	No
53.5	123	46.5	107	100	230
46.9	108	53.1	122	100	230
6.1	12	93.9	185	100	197
59.6	137	40.4	93	100	230
66.9	154	33.1	76	100	230
60.4	139	39.6	91	100	230
71.7	165	28.3	65	100	230
76.6	167	23.4	63	100	230
	% 53.5 46.9 6.1 59.6 66.9 60.4 71.7	% No. 53.5 123 46.9 108 6.1 12 59.6 137 66.9 154 60.4 139 71.7 165	% No. % 53.5 123 46.5 46.9 108 53.1 6.1 12 93.9 59.6 137 40.4 66.9 154 33.1 60.4 139 39.6 71.7 165 28.3	% No. % No 53.5 123 46.5 107 46.9 108 53.1 122 6.1 12 93.9 185 59.6 137 40.4 93 66.9 154 33.1 76 60.4 139 39.6 91 71.7 165 28.3 65	% No. % No % 53.5 123 46.5 107 100 46.9 108 53.1 122 100 6.1 12 93.9 185 100 59.6 137 40.4 93 100 66.9 154 33.1 76 100 60.4 139 39.6 91 100 71.7 165 28.3 65 100

Table 6: Procurement of Foods from Curry Point

 $X^2 0.5361$

More than 50 percent purchased any one item daily . Percentage of consumers taking daily ranged between 46.9 percent to 76.6 percent and 6.1 percent in the case of nonvegetarian dishes. Others take regularly as per the need, but could not specify the frequency. Very often employees consume meals either vegetarian or non-vegetarian regularly; they could not specify exact frequency.

Frequency of Consumption of Breakfast foods: Breakfast foods in Hyderabad are those commonly consumed in the southern part of India - like idly, vada, dosa, bonda served with groundnut chutney, ginger chutney and samber (dhal preparation), puri with potato or mixed vegetable curry. (Table 7). These foods are sold daily between 7 am to 9 am. There are vendors who open by 4 am in the morning. Most of the respondents eat at the street food stall itself, few expressed taking packed food home. Consumption of idly, daily is reported by 7.8 percent, idly and vada by 5.2 Percent, and dosa by 5.7 percent. On the other hand 45.3 percent most often. The differences between frequencies were significant. Upm ais consumed by 34.3 percent twice week. Puri and curry is consumed most often by 16.1 while 12.2, 13.0 and 58.7 expressed eating twice a week, once week and rarely, respectively. With respect to Bajji the percentage is consumed on alternate day by 28.3 percent, 43.5 twice a week, 18.3 percent once week which accounted to 90.1 percent the other 9.9 percent is distributed between most often and rarely.

Knowledge, Attitude and Practice of Street Vendors: one street vendor from each category was selected by convenience. We had to go with regular customers to the stall to get information.

Vendor Selling Breakfast Foods: The vendor sells the products placed on an open push cart, kerosene sometimes gas stove is used which is placed on the cart, along with eatables. The vendor himself is a cook, he had four helpers, one to assist in the pre- preparation, one to serve and two to clean vessels. There is no tap water was procured from a bore well nearby. Food items are sold in disposable plates. Water for drinking is from a can (local brand), the trash is thrown in a drum. For preparations like idly, dosa, vada and bonda the batter is pre-prepared and fermented. For puri the dough is made earlier, all chutneys and the curries are prepared and brought, only the final preparations are done in front of the customer. The vendor has no idea of any food safety rules. Except by experience and by suggestions of the customers he makes changes, he said that there is no controlling body. As it is road side and is a push cart, he can change the place any time or totally close the business. Consumers are from various categories - school children, senior citizens, employees, drivers, encompassing all income groups. Income is not a barrier. The rates are affordable ranging from Rs.15- 25/ plate, and coffee is Rs. 10/- a cup and tea Rs.7/- cup. A minimum of 300 to 400 plates per day are sold.

Street Vendor who Sells Chaat: The cart is a closed one and is kept open every day between 6pm to 9 pm. Normally all types put together the sales are between 75 to 100 plates per day. The peak season is summer and winter months when children have holidays. Children, adults and senior citizens enjoy these chaat items. The rate per plate is anywhere between Rs. 20-50. The difficulty is that there is no water available nearby. The cart keeps moving as per availability of light, and water source. The vendor uses disposable plates and can of water with disposable glasses. Problem is that there is no proper place to dispose garbage. Most of the preparations are made before and only heating/ fimal mixing is done on the spot. All items except panipuri is hot. He said he stores the let overs in the refrigerator Hetries to keep clean but very little scope.

Purchases from Curry Point: This curry point is being run by a lady. Curry point is situated in a permanent structure. The curry point is open from 12 pm to 1pm and from 7pm to 8.30 pm. The food items are prepared at a central point /home and brought to the counter. The counter is a closed stainless steel counter, no scope for any individual to touch. I understand that all items are sold every day and very often there is shortage. Left overs are not carried over to the evening. She brings fresh items in the morning and in the night. Vegetable curries, dhal or fries are sold for Rs.20/- a plate. The quantity is sufficient for two people. Egg curry consisting of two eggs is sold for Rs. 40/-, chicken for Rs. 80/-, mutton for Rs 150/-.Chapatis and Jowar rotis are made on the spot on order, each costing Rs. 10/each. The items are never left unsold, most probably the orders are taken before if possible. It is a well a maintained point.

4. Conclusion

Consumption of street foods has increased over the years so also the number of street vendors. There is no concept of food safety followed either by the consumer or by the street vendor, the situation is almost the same as was in 1993 (13), which means even after 25 years there is no improvement in the food safety except that disposable plates and glasses replaced the reusable plates and glasses.

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	Table 7. Dicaklast rood Consumption at the stan							
Foods	daily	alternate day	2/week	1/week	most often	Rarely	%/Total	
Idli	7.8 (18)	10.0 (23)	28.7 (66)	10.9 (25)	23.5 (54)	19.1 (44)	100/230	
Idli, Vada	5.2 (12)	0	14.8 (34)	21.7 (50)	45.3 (104)	13.0 (30)	100/230	
Vada	0	0	38.3 (88)	26.5 (61)	19.1 (44)	16.1 (37)	100/230	
Dosa	5.7 (13)	3.5 (8)	13.4 (31)	52.2 (120)	14.3 (33)	10.9 (25)	100/230	
Upma	0	2.6 (6)	34.3 (79)	18.7 (43)	28.3 (65)	16.1 (37)	100/230	
Puri	0		12.2 (28)	13.0 (30)	16.1 (37)	58.7 (135)	100/230	
Bajji (Bonda)	0	28.3 (65)	43.5 (100)	18.3 (42)	5.2 (12)	4.8 (11)	100/230	

Table 7: Breakfast Food Consumption at the stall

P value = 1.15