

Food Safety Behaviour, Hygiene and Sanitary Practices of Street Food Vendors

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ABSTRACT

Street food vendor is commonly defined as a person who offers food for sale to the public without a permanent built-up structure but with a temporary static structure or mobile stall. Street food vendors have a very poor social and health profile. This study is mainly to investigate the food safety knowledge and the hygienic and sanitary practices of street food vendors mainly in Hubballi-Dharwad city, Karnataka, India. This study used random sampling technique of survey with a target population of 100 street food vendors. Data was collected using self-structured questionnaire and was analyzed by using chi-square and percentage method. Results show that majority (79%) were male, belongs to the middle age group between 31-40 years. Majority of the vendors were married (64%) and were completed their primary education. Majority had been in the business for less than 3 years. About 74% of the vendors engaged in business to earn a good income. By considering overall aspects majority (more than 70%) of the respondents were not practicing the actions. The study concludes that street food vendors are mainly having a great knowledge towards all the aspects that is mainly about food safety and personal hygiene profile, but they are not practicing it properly.

Key words: street food vendor, knowledge, food safety, personal hygiene profile, practices.

INTRODUCTION

The World Health Organization (WHO) defines street vended foods as foods and beverages prepared and/or sold by vendors in streets and other public places for immediate consumption or consumption at a later time without further processing or preparation.^[1]

These foods are also called as fast food. FAO defines street food as ready to eat food mainly sold by hawkers or vendors especially on streets.^[2]

Street food vendor is defined as a person who offers food for sale to the public without a permanent built-up structure but with a temporary static structure or mobile stall-head load/wheel-barrow/truck. Street food vendors mainly provide a source of inexpensive, convenient and comparatively

nutritious food. vendors are divided into two groups: mobile vendors and fixed vendors. mobile vendors travel from place to place and stationary or fixed vendors have fixed stalls where food is prepared, stored and served at the same place. Street food vending mainly proved to be a good source of income, require low capital. The vendors usually prepared food at very dirty surrounding with waste water and garbage deposited nearby place and place surrounded by rodents and vermin.^[3]

In almost all the countries, vendors are poorly educated and even untrained in food safety behaviour. They usually work under unsanitary or unhygienic condition. Majority of food related illness are occurred due to this so; education and training of street food vendors is necessary. Recently

World Health Organisation and FAO are implemented a number of programmes and produced five keys to improve food safety behaviour, [4] they are clean and separate, raw cooked food, cook food thoroughly, keep food at safe temperatures, use safe water and raw minerals were advocated by the World health organisation (2015). [3]

Scope of the Study

- Street foods have become more popular in all the countries.
- However, street food consumption has associated to higher risks of food-borne diseases.
- This study is mainly conducting to investigate the food safety situation and to observe the hygienic and sanitary practices of street food vendors in the city.

Aim: To know about the practices following by the street food vendors on food safety behaviour and hygiene profile in Hubli-Dharwad city.

Objectives:

Hence taking the above points into consideration the following objective was formulated

1. To evaluate the food safety practices of street food vendors
2. To evaluate the hygienic and sanitary practices of street food vendors.

MATERIALS AND METHODS

Location selected for the study was Hubballi-Dharwad city, Karnataka, India. 100 Samples were selected randomly. Self-structured questionnaire was developed under general information, occupational traits, and practices on food safety behavior of street food vendors. Data was collected and analyzed by using chi square test and general percent method.

RESULTS AND DISCUSSION

General information of street food vendors

TABLE 1 : Classification of Respondents by Age , Gender, Marital status and Educational qualification.

Categories	N =100	Percentage
Age (years)		
18-30	38	38.0
31-40	44	44.0
41-50	18	18.0
Gender		
Male	79	79.0
Female	21	21.0
Marital status		
Unmarried	36	36.0
Married	64	64.0
Education level		
Illiterate	15	15.0
Primary	50	50.0
Higher secondary	18	18.0
Graduate	18	18.0

The above table shows that, majority (44%) of the street food vendors were between the age group of 31 to 40 years, followed by 18 percent between the age group of 41-50 years and the rest belong to 18–30 years respectively.

Majority (79%) of the vendors were found to be male whereas only 21 percent were females. street food vendors vary, result shows that around 50 percent of the vendors completed their primary school education, 18 percent completed their higher secondary and another 18 percent were found to be graduates whereas only 14 percent were found to be illiterate.

Occupational traits of street food vendors

TABLE 2 : Classification of Respondents by Occupational type, Type of shop, Duration of work and Income per day.

Categories	N =100	Percentage
Occupation type		
Full time	81	81.0
Part time	19	19.0
Type of shop		
Mobile cart	33	33.0
Fixed cart	67	67.0
Duration of work		
Below 3	46	46.0
3 – 5	26	26.0
Above 5	28	28.0
Income per day (rupees)		
Below 3000		
3000-5000	37	37.0
Above 5000	37	37.0
	26	26.0

According to the above table, most (81%) of the vendors were doing full time work and very few (19%) were found to be selling of street foods as their part time job. Most common structure used for vending the food is cart, fixed cart was used by 67

percent of the vendors and mobile carts were used by 33 percent of the vendors. According to the study nearly half (46%) of the street food vendors were working from less than 3 years whereas 28 percent of the vendors who have taken up this job more than 5 years. And another 26 percent were found to be between 3 to 5 years.

Majority (37%) of the vendors earning less than 3000/- per day and another 37 percent were earning up to 3000 to 5000

rupees in a day and 2 percent were earning nearly more than 5000/- per day. Around 55 percent of shops do not have workers, 26 percent of shops have only one worker and two or more workers been working in 19 percent of the shops.

Practice on food safety behavior, hygiene and sanitary practices
Receiving and storage

TABLE 3 : practices following on receiving and storage of the ingredients

No	Receiving and Storage	Response (%)		
		Yes	No	Not applicable
1	Date of manufacture/expiry and temperature for perishables checked	84	12	4
2	Is perishable refrigerated promptly	95	2	3
3	Are non-food items stored separately from food supplies	94	6	0
4	Are the poisonous substances stored in a special cupboard well away from the food	94	6	0
5	Water stored free from contamination area	12	79	9

Receiving and storage of food is very important in vending. First step is that the vendor should receive the product followed by storage of food materials. It is

clearly visible that more than half (95%) of the respondents are practicing the receiving and storage actions properly, only few (12%) are not practising.

Storage or refrigeration

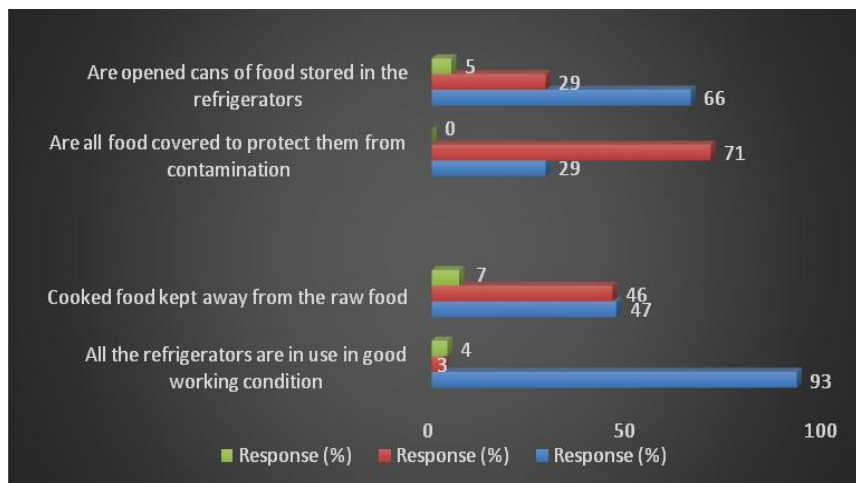


Figure 1 : practices following on storage of the ingredients in refrigeration

Storing of foods in a refrigerator is very important factor. More than 65 percent of the subjects were practicing it. Only few (less than 7%) were not practising. If the respondents do not follow the storage guidelines it is going to cause a great negative health impact on the customers or on public.

Food preparation and handling

Preparation and handling of food is a major part and even important part of vending. Almost (more than 80%) of vendors were practising preparation and handling of food action. Few (less than 30%) were not following.

TABLE 4 : Practice on personal hygiene profile of street food vendor

No	Food preparation and handling	Response (%)		
		Yes	No	Not applicable
1	Hands used instead of tongs to pick up foods like ice, sugar cubes, butter pads, breads, chapatis	92	8	0
2	Cleaning like cleaning out during food preparation or service	84	16	0
3	Fruits, vegetables, grains, etc. washed thoroughly before preparation	83	9	8
4	Cooking oil is not rapidly used for frying	27	47	26
5	Equipment cleaned between changed use	13	75	12
6	Separate chopping boards used for meat and vegetables	22	64	14
7	Chopping boards cleaned and sanitized between changed use	17	69	14

Service provided to the customer

TABLE 5 : Practice on services personal hygiene profile of street food vendor

No	Services	Response (%)		
		Yes	No	Not applicable
1	Plates washed once after the use	80	13	7
2	Disposable utensils used more than once	11	87	2
3	Sauce bottles, cruet sets, sugar, cream containers, etc. Unclean	48	33	19
4	Are the prongs of forks clean	28	47	25
5	Is the food served with the bare hand	94	6	0
6	Used surface is cleaned with antibacterial agents	21	79	0

In a food establishment, a good service given to a customer is important and even customer satisfaction is also important. In the above table more than 80 percent of

the respondents were practicing or giving good service to the customers but less than 30 percent were not giving good service.

Water supply and plumbing

TABLE 6 : Practice on services personal hygiene profile of street food vendor

No	Water supply and Plumbing	Response	Respondents (%)
1	Ice purchased from an approved source	Yes	17
		No	10
		Not applicable	73
2	What source of water is used for washing the utensils	Tap water	55
		Purified drinking water	17
		Bore water	28
3	What source of water is used for drinking	Tap water	35
		Purified drinking water	47
		Bore water	18

In the result, almost all (55%) of the respondents use tap water for washing utensils. For drinking majority (47%) were

using purified water that is a great practice to keep us healthy and even consumer too.

Service on food handling

TABLE 7 : Practice on services on food handling

No	Safety	Response (%)		
		Yes	No	Not applicable
1	Are sharp tools like knives, etc. carried and stored in a safe manner	90	4	6
2	Are gas cylinders turned off when not in use	47	36	17

From the result we notice that, almost all the respondents are practising the safety precautionary measures in street food

vending. Few (47%) were not practicing the safety action.

Personal hygiene

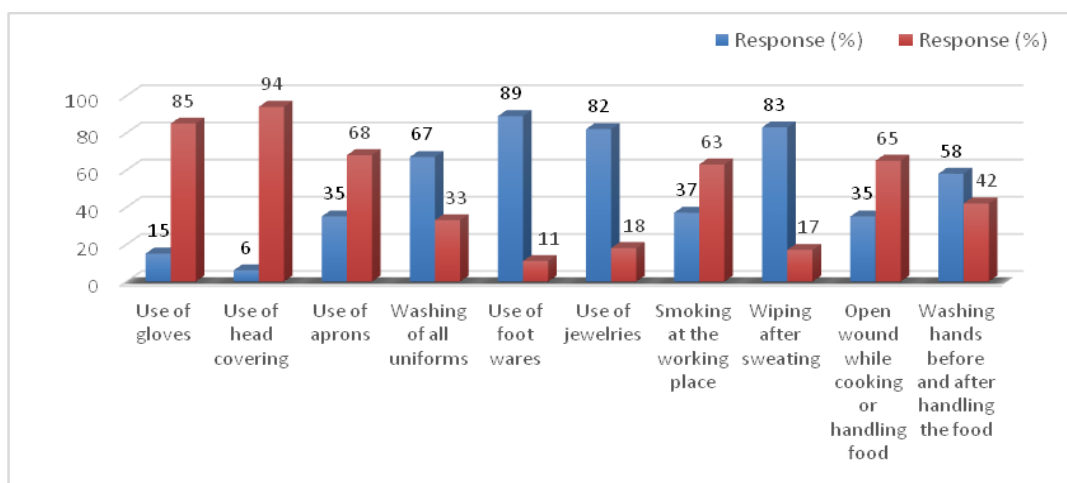


FIGURE 2 : Practice personal hygiene profile of street food vendor

Practising the cleanliness and personal hygiene is very important factor in everyone's life. While handling food unhygienic behaviours may cause food contamination, spoilage, and consumers may not prefer that shop. By observing the result, we can easily get to know that more than 60 percent of the respondents are practising the personal hygiene rules and other half are not practising the actions.

CONCLUSION

In the present day, customers are very much health conscious and they even have knowledge on cleanliness and hygienic profile when they go out to have the food. Who are practising the actions those vendors may already know that what the present customer want and because of the exposure to media and other things the customers are very smart in selecting the street food. Vendors who do not practising the actions are mainly have a lack of knowledge, practice and even they have a less income to buy all the stuffs. So, they must work hard towards food safety measures and even they need to be educated and they must learn to practice the personal hygiene profile.

Based on the above results, the study concludes that street food vendors are mainly having a great knowledge towards all the aspects that is mainly about food safety and personal hygiene profile, but they are not practicing it properly.

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