

A Study on Street Food Preparation Practices in Jalgaon City

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ABSTRACT

Approximately more than 400 street food vendors are serving foods in Jalgaon city. On an average 50 % population prefers food offered by street food vendors. This signifies the volume of street food vending business as well as volume of public health at risk due to the unhygienic practices adopted by them. The present study is undertaken to ascertain the hygienic practices adopted by street food vendors in Jalgaon city. Primary data is collected through structured questionnaire and observation method from 80 street food vendors. Analysis reveals that majority of street food vendors do not undertake hygienic food preparation habits. And lack of knowledge about hygienic practices is main reason behind it.

Key words: Hygienic Food Practices, Public Health Issue, Street food, etc.

Introduction

Street food is ready-to-eat food or drink sold on street or other public places by hawker or vendor^[1]. Street foods are also called as finger food or fast food. On an average, it is cheaper than restaurant meals. According to a study by Food and Agriculture Organization conducted in 2007, 2.5 billion people prefer street food every day. People prefer street food for a number of reasons i.e. cheap rate, test, to experience ethnic cuisines, and also for nostalgia ^[2]. From the ancient period incidences of street food vending is being observed with concerns about contamination of food. The safety of street food has become one of the major concerns of public health with the increasing pace of globalization and tourism. Governments and scientists continued to raise public awareness on quality of ingredients, food and water handling methods, biological hazards, low Knowledge, attitude and practices Vendors (KAP), hygiene of cooking wares, poor personal Hygiene of Vendors, use of poor quality of Water, poor consumer involvement, lack of positive attitude of public authorities, absence of legal control on street-vendors and unsatisfactory coordination among concerned stake holders ^[2].

Objectives of the Study

- 1.To survey the food preparation & serving practices of street food vendors in Jalgaon city.
- 2.To identify the various unhygienic practices being followed by street food vendors in Jalgaon city.
- 3.To find out the problems faced by street food vendors in Jalgaon city.
- 4.To suggest the appropriate measures to prevent such unhygienic practices adopted by them.

Hypothesis of Study (Null)

- 1.80 % Street Food Vendors adopts unhygienic food preparation practices.
- 2.The unhygienic practices by street food vendors in Jalgaon city & Lack of knowledge about hygienic food practices are not associated.

Need of the Research

This study is important from this point of view as to ascertain how much extent hygienic practices are adopted by street food vendors in Jalgaon city at the time of preparing and serving foods. Jalgaon is a district city having more than 6 lacks population. Approximately more than 400 street food vendors are serving foods in Jalgaon city. On an average the annual turnover of street food vendor is 1, 56, 00, 00, 000/- (Daily 12000/-). This signifies the volume of street food vending business. Such huge turn over denotes the issue of public health that is at risk due to the unhygienic practices adopted by them.

Review of Literature

The business of street food vending belongs to unorganized sector. There is no specific regulation imposed by govt to monitor and control the standard of street food vendors. It is also wide spread aspect of society as almost 50% population prepares food from street food vendors. Also significant portion of population depends on this unorganized sector for livelihood. As discussed in previous chapter there are lots of corners that can be considered in the review of literature. The sector needs major inputs from several avenues which need to be involved are Government – from local to International and National agencies (WHO, FAO etc.), NGOs, Educational Institutions and all other interested individuals and organizations ^[3]. India is a rapid growing economy. Hence it also faces problem of rural – urban migration for employment opportunity. Due to this transition, food habits of people are getting affected. Nowadays, street food is becoming very popular and is in demand because it saves one's time and energy as it is ready to eat ^[4]. According to Chander Pal Thakur, et al., 2013, the street food vending business is result of growing urbanization. And very marginal street food vendors adopt hygienic food preparation habits. 72 % vendors dispose garbage in open lid bins. Only 3 % vendors use hand gloves. Only 2% vendors found washing hands before and

after handling cooked and raw food. Flies or mosquitoes were observed in 45% of the vending sites. 19 % were washing apparatus in open ^[5]. According to Thilde Rheinländer (2006), hygiene practices are not often extended to in-visible back side of food vending and results in unhygienic practices e.g. absence of regular hand washing, cleanliness of kitchen premises & vegetables etc. in urban Kumasi, Ghana ^[6]. According to the study of Tshwane, Gauteng J H Martins, DCom (2006); the hygiene practices adopted at South Africa indicated minimal health risks associated with consuming street foods ^[7]. Tolulope et al. 2015 studied the relationship between age and practice of food safety and hygiene in his study. He further argues improvement of food practices of street vendors through education and training ^[7].

M. A. Abdalla, et al., has indicated that 48% respondents found with primary school education and 42% were illiterates. Most of foods served by them are found in contaminated state ^[8]. During their study in 2013, Chirag Gadi, et al, found sugarcane juice & Sweet lime juice as most contaminated foods. They found that contamination is mainly due to unhygienic conditions of persons, premises and utensils. The highest frequency of Salmonella infection was observed in cucumber (100%), Kakadi (66.6%) and arhar dal (50%) samples. To ensure safe street food, critical control points & measures were suggested by them ^[9]. The study of Sadiqa Qureshi, et al., revealed that majority of street food vendors were men (86.6%) who fell into the average age group of 41-50 years. Around (56.1 %) had not received any education indicating majority of them were illiterate, (92.3%) street vendors admitted that they washed food before cooking .It was marked that 80% of the vendors used same surface for cooking the food more than twice. Only (19.04%) vendors used aprons and cent percent served food with bare hands .The study found that 73.3% of the vendors blew air into the packing back. Data obtained from the street food vendors showed that many wrong practices (intentional or unintentional) followed by them which can pose a serious health risk to the consumers ^[10]. Isaac Monney & other (2014), evaluated compliance of hygienic practices and setup of institutional and legislative framework in Ghana. In their study, they evaluated hygienic practices with reference medical screening of vendors through medical officers, provision of water and food vending points, use of protective clothing and head covering ^[11]. Stephen Odonkor & et. al., (2011) Evaluated hygiene practices among street food vendors in Accra metropolis, Ghana. The study focused to assess aspects of hygiene practices such as food preparation area, environment of food vendors, personal hygiene, handling and storage of food. This study indicates that majority of food vendors in Accra exhibited good food hygiene practices. However there is a need for the vendors to be given regular education on hygienic practices to avoid food contamination and food poisoning ^[12]. Md Mizanur Rahman

& et al., (2012) in their study analyzed relationship of age and ethnicity with food safety knowledge, food safety knowledge and training with attitude, food safety knowledge, attitude, training and age of the food vendors with food safety practice, duration of food vending with food safety practice. They found that result is statistically significant ^[13].

Kok & Balkarn 2014, in their study reviewed the global practices adopted by street food vendors from a hygiene perspective and its relevance to the South African context. The study is concluded with immense need to increase the awareness, education and training of street food vendors to ensure the hygiene practices with appropriate monitoring mechanism from govt sector ^[14].

Research Methodology

Type of Research

It was a study based on survey research method; collected actual facts and figures related to basic problem of study. Secondary data was used to conceptualize the study and primary data was used to satisfy the objectives.

Study was descriptive and quantitative in nature. The study was also based on extensive course of observation to collect necessary first hand information about the hygienic food preparation and serving practices.

Types of Data

Primary data was collected through structured questionnaire. It includes actual facts about food preparation practices adopted by street food vendors in Jalgaon city.

Secondary data

Secondary data were collected through various sources such as journal articles, official's reports & manuals, working papers, research papers & websites etc.

Sample Size

Feedback is collected from 80 street food vendors operating in Jalgaon city.

Testing of Hypothesis

1. $H_0 = 80\%$ Street Food Vendors adopts unhygienic food preparation practices

1. $H_0: P = 0.80$ & $H_a: P \neq 0.80$
2. Expected Probability of success (p_0) is 0.80 & Expected Probability of failure (q) is 0.20.
3. Sample Size (n) is 80 & Proportion of success. (P^\wedge) is $70/80 = 0.875$.
4. Observed frequency of success is 70 & Observed frequency of failure is 10.
5. Level of significance is 5 % & The H_0 is one sided.
6. Z Test Statistics (Z) = $(P^\wedge - P_0) / \sqrt{P_0 \times (1 - P_0) / n}$ (Single sample Z Test).

7. Test Statistic $Z = \frac{0.875 - 0.80}{\sqrt{0.80(1 - 0.80) / 80}} = 1.724$

The P Value is < 0.042354 and the result is significant at $P < 0.05$. Hence the null hypothesis fails to reject and accordingly, we conclude that 80 % of street food vendors in Jalgaon city does not adopts hygienic food preparation practices.

2.The Unhygienic Practices by Street Food Vendors in Jalgaon City & Lack of Knowledge about Hygienic Food Practices are not Associated

Table 1: Frequency Distribution of Respondents

	Hygienic Food Practices	Unhygienic Food Practices	Total
Awareness of Hygienic Food Practices	5 (25.31) [8.52]	40 (19.69) [10.96]	45
Unawareness of Hygienic Food Practices	5 (19.69) [10.69]	30 (15.31) [14.09]	35
Total	10	70	80

Source: Primary Data

1. Sample Size (n) = 80
2. Level of significance = 5 %
3. Degree of Freedom = 1
4. The H_0 is two tailed
5. Test Statistics $(X^2) = \sum(o_{ij} - E_{ij})^2 / E_{ij} = 44.5251$

The calculated value of X^2 is = 44.5251. Chi-square table value at 05 % level of significance and 1 degree of freedom is 101.879. The calculated value of X^2 is less than the table value. Hence null hypothesis fails to accept (rejected) and accordingly alternative hypothesis is accepted. Hence, it is interpreted that there is association between unhygienic practices by street food vendors in Jalgaon city & Lack of knowledge about hygienic food practices.

Findings

Food Preparation Practices Adopted by Street Food Vendors

1.Majority of proprietor (65 %) are of adult age and 90 % of them are educated up to 12th standard. As well as 72 % vendors earn below 10000 per month. This reflects that majority of vendors in Jalgaon city are not socioeconomically qualified to observe the sophisticated hygienic food preparation habits.

2. 88.37 % vendors wash hands without using any type of soap and 2.33 % do not wash hand at all. Similarly 93.02 people wash hands only one time during the working hours. These suggest that there is lot of scope to contaminate foods served by street vendors in Jalgaon city.

3.93.02 % vendors do not use apron and cap during working hours at all. During the working hours food may be get contaminated due to body sweat and dust.

4.6.98 % vendors wash plates and spoons using soaps while 90.70 % vendors use only water. 2.33 % do not wash plates at all. Similarly, 18.60 % vendors wash plates repeatedly and 79.07 % only one time. Washing hands, plates and appliances repeatedly using soaps is very much important from hygienic point of view.

5.Only 25.58 % vendors' use Mosquito Net to cover foods and majority of vendors (74.42 %) does not use.

6.No vendor serve mineral water and only 11.63 % vendors' serve boiled water. Majority of vendors (88.37 %) serve regular water that is without any treatment.

7.There is no official provisions regarding registration, inspections and monitoring of street food vendors in India and specifically in Jalgaon city.

Major Hurdles Behind Such Practices

1.62.79 % vendors do not have any idea regarding standard hygienic practices.

2.23.26 % vendors cannot afford to adopt standard hygienic practices because they cannot compensate the cost of hygienic practices by increasing the price as their customer belongs to economy class and they are very sensitive towards price.

3.Similarly, 11.63 % vendors are not ready to adopt such practices as they do not consider it necessary.

Suggestions

1. On an aggregate level, role of govt. govt. authorities, Municipal Corporation, education institute, NGO's, customers and citizens is very important in this regard. To improve the quality of street food, all the components of the society needs to work in an integrated manner.

2. It is very necessary to form an official arm that will oversee the registration, inspection and monitoring of street food vendors in India including standards of Hygienic food practices.

3. Sincere efforts of food health authority are important at the time of granting permission to business. A strict monitoring & inspection of street food is necessary. Frequent quality checks are must to control the unhygienic food preparation habits of street food vendors.

4. Education & Training of street food vendors is also important aspect in this regard. And it should be compulsory from recognized institutes before granting permission to business. That will create awareness on hygienic food preparation habits as well as various possible health problems among vendors.
5. Considering the contribution of this sector in employment creation, financial support and incentives to street vendors are obvious to make them afford increased cost of hygienic food preparation habits.
6. NGO's can also play an important role in this regard by creating awareness among citizens about emphasis on quality food & practices offered by street food vendors.

Conclusion

Government has provided official regulations regarding registration, inspection and monitoring through food adulteration act 1954. But street food vendors do not come under the purview of this department. Food preparation habits adopted by street vendors are not up to the mark. Though food vendors initially take precautions, there are lots of incidences during the working hours when food may get contaminated. Hence it is concluded that food preparation and serving habits adopted by street food vendors in Jalgaon city are very unhygienic and food served by them are associated with risk of public health.

Major hurdle in this regard is lack of proper knowledge of hygienic food preparation & serving practices adopted by majority of street food vendors in Jalgaon city. Financial constraint is also a reason behind this issue as many of street food vendors cannot afford to buy modern cooking and serving appliances. To overcome this issue, there is need to have a regulatory arm with adequate infrastructural support at local authority to check the practices adopted by street food vendors.

References

- Simopoulos, A. P., & Bhat, R. V. (Eds.). (2000). Street Food (Vol. 86). Basel, Switzerland: S. Karger.
- Wikipedia. (2015, September 11). Street Food. Retrieved September 18, 2015, From Wikipedia: www.wikipedia.org
- Chakravarty, I. (n.d.). Street Food Vendors – Food Safety Requirements. Retrieved September 18, 2015, From bis.Org.In: www.Bis.Org.In
- Agriculture and Consumer Protection Department. (N.D.). Socio-Economic Aspects of Street Foods. Retrieved September 18, 2015, From Fao.Org/: <http://www.fao.org/>
- Chander Pal Thakur, et al. (2013). Food Safety And Hygiene Practices Among Street Food Vendors In Delhi, India. International Journal of Current Research, 5 (11), 3531-3534.

- Rheinländer, T. (2006). Street Food Quality A Matter Of Neatness and Trust. University of Copenhagen, Public Health Institute of Public Health Science. Denmark: December.
- Tolulope Et Al. (2015). Knowledge And Practice Of Food Safety And Hygiene Among Food Vendors In Primary Schools In JOS, Plateau State, North Central Nigeria. E3 Journal Of Medical Research, 4 (2), 016-022.
- J H Martins, et al. (2006). Socio-Economic and Hygiene Features of Street Food Vending In Gauteng. Sajcn, 19 (1).
- M. A. Abdalla, et al. (2009). Food Safety Knowledge and Practices of Street Food Vendors in Atbara City. African Journal of Biotechnology, 8 (24), 6967-6971.
- Gadi, C., Bala, K., & Kumar, A. (2013). Study of Hygienic Practices of Street Food Vendors in Allahabad City, India and Determination of Critical Control Points for Safe Street Food. The Allahabad Farmer, Lxviii (2).
- Qureshi, S., Vaida, N., & Azim, H. (2015). Hygiene Practices and Food Safety Knowledge among Street Food Vendors in Kashmir. International Journal of Scientific Research, 4 (8), 723 - 726.
- Monney, I., & Al., E. (2014). Food Hygiene And Safety Practices Among Street Food Vendors. Food & Public Health, 4 (6), 306-315.
- Odonkor, S. T., Adom, T., Boatun, R., Bansa, D., & Odonkor, C. J. (2011). Evaluation of Hygiene Practices among Street Food Vendors in Accra Metropolis, Ghana. Elixir Food Science, 41, 5807-5811.
- Rahman, M. M., Arif, M. T., Bakar, K., & Tambi, Z. B. (2012). Food Safety Knowledge, Attitude And Hygiene Practices Among The Street Food Vendors In Northern Kuching City, Sarawak. Borneo Science, 31, 95-103.
- Kok, R., & Balkaran, R. (2014). Street Food Vending and Hygiene Practices and Implications for Consumers. Journal of Economics and Behavioral Studies, 6 (3), 188-193.