NUTRITION VALUE OF READY TO EAT FOOD AVAILABLE AT BHUBANESWAR CITY

B.B.Kar*

K.Kar*

S. Priyabadini*

Abstract

In the present paper a random study has been carried out to estimate the nutrition content of certain street foods. The contaminations arise due to various viruses and different chemicals are estimated during the study. In this aspect, the lack in hygiene has also been monitored. This study will bring awareness among the people and too will activate the maintenance of food quality we consume, called as Street food**.**

* Kalinga Institute of Industrial Technology, KIIT University, Patia, Bhubaneswar-751024

Introduction

Generally the ready to eat food, we define them as the food available mostly in the fast food centers (or) the street foods. The vendors, who generally lack the sense of hygiene, sell those foods(1-4). In the present era modernization has brought the limitations in time for the day-to-day activities. In addition, the concept of working women, constraint of time for food preparation at hence and these ready to eat food are in utmost demand day by day.These foods due to lack in hygiene, causes serious health hazards. The microbial easily affect these foods and degradation of their nutrition at value starts(5-9). These foods due to their open exposure get easily contaminated by various viruses and different chemicals as well as.We can also define them as ready-to-eat (RTE) food. In the last few years, fast foods are gaining popularity, especially among the youth.

Methodology

The methodology deals with the following major aspects

Intake Pattern

The intake pattern of these foods is investigated initially by a general questionnaire pattern. The consumers are categorized into three different groups :- Children within the age group of 20 years, grown up persons up to 40 and adults above the age group of 40. the initial survey reveals the intake information as given below:

Stick Ice Cream, Cucumbers, Water melon, PaniPoori, Pau bhaji
Chat, PooriSabji, Boiled egg, Bada and Pakoda
These items have been selected for a details analysis.

Investigations on the nutrient contain of these street foods

The samples of the selected foods were collected from different vendors and were subjected to analysis for their energy, protein and fat content with the help of general laboratory techniques. All the selected foods had been collected from four different vendors of various places of Bhubaneswar city. The study concentrated on toots for food borne pathogens i.e. coliform, E.Coli, Bacillus subtilis etc. and the presence of various adulterants were studied using

quantitative tests for oil and fats, detection of bacteria responsible for food poisoning and food borne diseases.

Investigations on hygienic practices carried out by street food vendors

Vendor of 10 different areas are taken into consideration. Stresses were given on the personal hygiene, environmental cleanliness, and disposal of wastes, major taken by these for the safty preservation of food. A checklist had been prepared in this aspect.

Result and Discussions

The Characters (so called consumers) are categorized into 2 parts male and female. The total numbers under investigations were 300 out of which 138 were male and 162 were females. This categorization shows that among the respondents more females are accessed to street foods in this city. In this view, the following points are taken into consideration.

Pattern of consumption

The above study revealed, the majority of consumers belong to a very lower income group followed by lower middle class people. The stick ice creams are mostly consumed by the category (I) respondents. These are sold widely near schools, theatres, parks, bazaar and other popular public places. During summer the rate of consumption almost multiply 10 times than the usual one. Consumption of raw foods like cut water melon, cucumbers etc are consumed among all three categories of respondents. These are made available on the roadsides, which are mostly taken by the travelers. Panipoori as the investigation revealed is the most popular street food and about 1000 of vendors are selling Panipoori in the city. The female category is the high profile consumed to this food. The respondent of category II is also the highest consumer of Panipoori. Panipoori is an all season consumed fast food Pavbhaji& Chat are also consumed in a high frequency throughout the year and the ultimate consumers are the second category of respondents between the age group of 20-40 years.PooriSabji is equally taken in the last category of respondent in a higher rate. People prefer to cheque it as the morning breakfast, mostly office going ladies and gents are habituated intake of these foods.Bada and Pakodaetc are mostly popular as snacks along with evening tea (or) any snacks of official nettings casual get together.

Boiled egg, consumption is mostly concentrated in respondent category II and III. This is the most unhygienic food where the unsold boiled eggs are reutilized on the next day.

So, for all age groups, street foods were taken for fun and taste shake, out of which most of the college going and office going respondents consumed these ready to eat food to spent time with their friends and a very less frequency took this food for the need. In the age group within 2 years, the consumers consider the street food to be safe and in the second group of consumers, they consider these foods to be comparatively unhealthy and in the age group between 40 and above, half of the consumers consider the food to be safe for health. In a general view, consumers are mostly affected with indigestions and diarrhea, for all age groups. These contamination leads to profuse vomiting, stomach pair throat inflection cough and cold etc. The middle group of consumers had a very low frequency of these attacks in comparison to other group of respondent. Calculating the energy provided by the street foods, it has been found that Chat Poori-sabji, Boiled egg and Bada&Pakoda are very high in comparison to the other food items. The fat content is equally high for the above foods. The items like stick ice cream, raw food, PanipooriPavbhaji have little less energy content and the fat factor can be considered almost negligible.

Contamination of these food items

The Table I represents the microbial contaminants for the selected street food samples. It was found from that celiforms are the most contaminating microbial in the stick-ice cream. The cut raw foods like cucumber, watermelon etc contains Bacillus subtilis. Foods like Panipoori, Pavbhaji, Chat had a major contamination with E. Celli. The contaminated microbial count was found to be above 1, 00,000 afu/g.

Estimation of adulterants in fast food

For these selected fast foods, four different samples have been collected for detection tests for adulterants. The data is represented in Table-II.The results show that among the stick ice-cream samples, they mostly contain non-permit table color and sweetener as well i.e. (Saccharine). The chilly powders used in all these Panipoori, Pavbhaji, PooriSabji, Chat etc. contain adulterant like brick powder. The oil used for trying contains castor oil as the adulterant. The street vendors also

mix the mineral oil, fund as an adulterated sample in these frying items. The mineral value, when taken into consideration it has been found that the iodine value either increased (or) decreased in comparison to the normal range, which indicate the constant re-heating of the oil sample. The street food, chat also is highly contaminated with non-permit table colors, brick powder in a very high extend. In addition the success, these vendors are using contain only colored water (tomato sauce).

Practical Utility

Hygienic practices for vendors

These Vendors don't have any licensed (or) enrollment format. These vendors lack in the sense of hygiene. The places in and around them, are found to be very unhygienic and polluted.These hygienic practices were carried out for 30 different vendors selected from all over the city. This carried an interaction session, questionnaire and continuous observation schedule. The data obtained are presented in Table-III. Out of these 30 vendors, almost 80% of them don't have the practice of cutting their nails and fairs, regularly. They don't wear clean cloths and many of them have the bad habits like spitting around, scratching their heads bodies, picking the nose, while scratching the bodies, the dirt gets into the nail. The sweat same time gets into the In addition, use of polluted water, unhygienic food. Utensils, serving methods and disposal of waste, causes let of environmental pollution and these habits are quite accessible to environmental contamination.

Conclusion

The intake pattern of these street foods from three groups of respondents, in Bhubaneswar City was initially elicited. The common interaction highlighted eight commonly consumed foods, mostly raw fruits, fried items, cold and hot foods. These food samples were collected from 4 different vendors for each food items. They were subjected to proximate principles and microbial evaluations. The adulterant content of the food has also been estimated.

Table-I Nutritional value in the street food (Represents the energy, fat and protein contest of the different street foods as analyzed in the laboratory)

Foods	Energy (kcal)	Protein(gm)	Fat(gm)
Stick Ice Cream	48	0	0
Cucumber/Water Melon.	53	0	0
Panipoori	251	1.56	14.8
Pavbhaji	278	1.96	5.9
Chat	428	3.98	45.5
Poorisabji	441	4.02	47.2
Boiled egg	830	18.46	58.7
Bada&Pakoda	381	3.78	24.8

Table-II Microbial contaminants for the selected street food samples

Foods	Organisms	Colony counts (cfu/g) of the street foods
Cucumber	Coliform	
Water melon	Bacillus subtilis	
PooriSabji	Escherichia Coli	
PaniPoori	Escherichia Coli	1,20,000
PavBhaji	Pseudomonas	
Chat	Pyocyneous and	
Boiled Egg	Bacillus subtilis	
Bada&Pakoda	Coliform	

Table-III Adulterants identified in street food

Foods	Adulterants	Total numbers
Stick Ice-Cream	Non-permitted colours ORANGE- RN	2

Chilli powder	Brick powder	1
Chat	a)Non-permitted colours Rhodamine-B b)Saccharine	2 3
Panipoori	a) Castor Oil	1
PavBhaji	b) Mineral Oil	1
PooriSabji	Mineral Oil	1
Bada&Pakoda	Castor Oil	2

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