Overview of Snack Food Sanitation at Night Market Food Vendors, Larantuka City Park, East Flores Regency

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Abstract: Food sanitation hygiene is an effort to control the factors of food, people, places, and equipment that can or may cause disease or health problems. The purpose of this study was to find out a description of food sanitation at the night market food vendors at Larantuka city park, East Flores district. This research is quantitative descriptive. The population and samples in this study were selling carts, totaling 13 carts and food handlers, totaling 13 people. The research sample amounted to 13 people with the sampling criteria were people who directly handled food. Analysis of the data used in univariate analysis. The results showed that most traders did not meet the requirements for personal hygiene of food handlers (69.2%), some traders met the requirements in tableware (76.9%), some of the merchants met the requirements in clean water and food ingredients (53.8%) and all food traders do not meet the requirements in hawker facilities (100%). It is recommended to night market traders to improve personal hygiene and food sanitation so that the quality of the food they manage is guaranteed.

Keyword: Food sanitation, traders, night market.

INTRODUCTION

Food is an essential need for every human being for growth and maintenance of life. The food consumed must be healthy and meet a balanced nutritional value in carbohydrates, protein and fat, as well as vitamins and minerals. If the balance of food is disturbed, it will cause health problems and disease and even food poisoning. To maintain the quality of food, it is necessary to have hygiene and sanitation efforts in food processing [1].

Food sanitation hygiene is an effort to control the factors of food, people, places, and equipment that can or may cause disease or health problems [2]. Food sanitation is one of the prevention efforts that focuses on activities and necessary actions to free food and beverages from all dangers that can interfere or damage health, starting from before the food is produced, during the processing, storage, transportation, until the time the food is produced. Where the food and beverages are ready to be consumed by the public or consumers [3]. Contaminated food can cause symptoms of disease, both infection and poisoning. The impact that can be caused can cause death [4].

Data from the World Health Organization (WHO) in 2019 showed that around 600 million or almost one in 10 people in the world fell ill after consuming contaminated food. Based on the 2020 BPOM RI report, in Indonesia there are around 20 million cases of food poisoning every year [5].

The incidence of food-borne diseases is caused by the lack of application of hygiene and sanitation from food handlers in the process of processing and serving food. Previous research has shown that there is a relationship between handler hygiene (p-value = 0.004), food processing sanitation (p-value = 0.011) and food presentation (p-value = 0.040) with the presence of E. Coli bacteria in snacks for elementary school children in the village. Sempur city of Bogor in 2019 [6]. The role of cleaning or washing equipment also needs to be fundamentally known. By cleaning the equipment properly it will produce food processing equipment that is clean and healthy. Previous research stated that the tableware washing technique carried out at the Tikala Baru sub-district restaurant, Manado city still did not meet the requirements and it was found that 1 fork tableware was positive for Escherichia coli bacteria [7].

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Around 70% of food poisoning cases in the world are caused by ready-to-eat food, namely food that has been processed, especially catering businesses, restaurants, canteens, restaurants, and street food [1]. Legislation relating to food safety aspects is the Ministry of Health of the Republic of Indonesia. No. 1098/Menkes/SK/VII/2003 concerning requirements for hygiene and sanitation for restaurants and restaurants, Minister of Health of the Republic of Indonesia. No. 1096/Menkes/Per/VI/2011 concerning hygiene and sanitation for catering services, and the Decree of the Minister of Health of the Republic of Indonesia. No. 942/Menkes/SK/VII/2003 concerning guidelines for hygiene and sanitation requirements for street food explains that the public needs to be protected from food and beverages that do not meet health requirements so as not to endanger their health by stipulating guidelines for sanitation hygiene requirements for snacks by a decree of the minister of health. Food safety is a community need, because safe food will protect and prevent disease or other health problems. Therefore, care must be taken so as not to cause poisoning and foodborne illness [2].

Based on this, hygiene and sanitation is a basic concept of food management that must be implemented. Six principles of food sanitation hygiene, namely: (1) Selection of food ingredients. The selected food ingredients must consider several things, such as the expiration date, registered with the Ministry of Health, and the material being allowed to be used for food, (2) Food processing. Food processing includes 3 things, namely equipment, food handlers, and processing sites, (4) Storage of cooked food. Cooked food is stored preferably at low temperatures, so that the growth of microorganisms that can damage food can be restrained, (5) Food transportation. The desired way of transporting food is in a closed container, (6) Food serving. Food is served immediately, if the food is decorated, the ingredients used are edible.

Larantuka City Park Night Market is a culinary tourism destination in East Flores district. This place is most visited by all people, because of its very strategic location, which is right in the center of Larantuka city. There are various types of fast food provided, ranging from fried foods, meatballs, chicken noodles, grilled fish, grilled chicken to the most popular foods. namely fish in sour sauce. In one location, there are 13 street vendors selling their food using open carts in the open. The average food vendor who works in this place comes from the island of Java so that the way of processing food and the treatment of food also has diversity. This place has been around for a long time but until now there has never been any research or research related to fast food in this food processing place. Larantuka City Park Night Market is open every day from 16.30-22.00 WITA. Based on an initial interview on May 3, 2021 to 9 food vendors at the Larantuka city park night market, he explained that the average visitor who comes per night can reach 30 people per food processing place with the length of time for each visitor who comes to enjoy ready-to-eat food is average. an average of 20 minutes per visit and for visitors who only order food to eat elsewhere it is an average of 15 minutes per visit. The results of interviews with 9 traders explained that the average income earned per night could reach 3,500,000,000.00 per food processing place

Based on the observations, the researchers found that there was still a lack of attention from traders in applying the principles of good and correct hygiene and sanitation. In the initial observations, the researchers found that 9 traders who used masks did not comply with correct rules for using masks, the masks used when processing food were not used to cover the nose and mouth but were placed on the merchant's chin. Every place to eat provides a hand washing area (CTPS) but based on observations, researchers found that the CTPS provided was not used by traders or visitors who came. Often traders do not wash their hands before touching food. Besides that, another bad habit of some of the male traders in each of these shops is smoking and then touching food without washing their hands first. This study aims to determine the description of food sanitation at the night market food vendors at Larantuka city park, East Flores district.

**METHOD**

This research is a descriptive research quantitative. This research was conducted at the Larantuka City Park Night Market, East Flores Regency from November to December 2021. The population in this study were all selling carts, totaling 13 selling carts and all food handlers, totaling 26 people. The research sample amounted to 13 people with the sampling criteria were people who directly handled food. The data collection technique in this study was by means of interviews and observations using a snack food questionnaire in accordance with KEPMENKES RI NO. 942/MENKES/SK/VII/2003 concerning guidelines for hygiene and sanitation of street food. The data collection instrument used is the snack food questionnaire in accordance with KEPMENKES RI NO. 942/MENKES/SK/VII/2003 concerning guidelines for hygiene and sanitation of street food. The interview data is calculated according to the number of questions in the questionnaire multiplied by the weight. The number of questions in the questionnaire = 25 multiplied by the weight for each question is 1, so that the determination of the criteria meets the requirements if the total score = 25. If <25 then does not meet the requirements The data that has been collected is then processed computerized. Data analysis was carried out descriptively and presented in the form of tables and narratives based on the variables studied. This research has been ethically approved by
the Ethics Review Team of the Faculty of Public Health, Nusa Cendana University with the Ethical Approval Number: 2021166-KEPK 2021.

RESULTS

1. Characteristics of Respondents

Characteristics of respondents based on the age and gender of respondents at the Night Market Food Trader in Larantuka City, East Flores Regency can be seen in Table 1.

Table 1: Characteristics of Respondents Based on Age, and Gender at Night Market Food Traders, Larantuka City Park, East Flores Regency

<table>
<thead>
<tr>
<th>Characteristics of Respondents</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>7</td>
<td>64.3</td>
</tr>
<tr>
<td>31-40</td>
<td>4</td>
<td>28.6</td>
</tr>
<tr>
<td>&gt; 41</td>
<td>2</td>
<td>7.1</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>8</td>
<td>61.5</td>
</tr>
<tr>
<td>Woman</td>
<td>5</td>
<td>38.5</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 shows that the majority of respondents at the Night Market Food Trader in Larantuka City, East Flores Regency are 20-30 years old (64.3%) and have a male gender (61.5%).

2. Univariate Analysis

The distribution of respondents based on personal hygiene, eating utensils, clean water and foodstuffs, as well as hawker facilities at the Night Market Food Merchant Larantuka City, East Flores Regency can be seen in Table 2.

Table 2: Distribution of Respondents Based on Personal Hygiene, Tableware, Clean Water and Foodstuffs, and Vendor Facilities at Night Market Food Traders, Larantuka City, East Flores Regency

<table>
<thead>
<tr>
<th>Characteristics of Respondents</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal hygiene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualify</td>
<td>4</td>
<td>30.8</td>
</tr>
<tr>
<td>Not eligible</td>
<td>9</td>
<td>69.2</td>
</tr>
<tr>
<td>Tableware</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualify</td>
<td>10</td>
<td>76.9</td>
</tr>
<tr>
<td>Not eligible</td>
<td>3</td>
<td>23.1</td>
</tr>
<tr>
<td>Clean Water and Foodstuff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualify</td>
<td>7</td>
<td>53.8</td>
</tr>
<tr>
<td>Not eligible</td>
<td>6</td>
<td>46.2</td>
</tr>
<tr>
<td>Vendor Facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualify</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Not eligible</td>
<td>13</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 shows that respondents at the Night Market Food Vendors in Larantuka City, East Flores Regency have personal hygiene that does not meet the requirements (69.2%), this is because the street food managers do not wear work clothes that cover their heads, do not wash their hands every time they go to work, handle food, do not cover wounds or ulcers and other wounds, and food handlers while working are always scratching their heads, picking their ears, and smoking. Respondents have eating utensils that meet the requirements (76.9%), because snack utensils are always washed after each use using soap and clean water and replace them if they are not suitable for use and do not reuse utensils designed for single use. Respondents have water and food ingredients that meet the requirements (53.8%), because the water used for cooking and washing comes from a water source that meets the requirements, and the food ingredients used come from fresh and washed raw materials, as well as all other facilities. The handler does not meet the requirements (100%), this is due to the unavailability of food storage cabinets, unavailability of places for clean water, unavailability of food storage cabinets/storefronts and unavailability of trash bins.

DISCUSSION

1. Overview of Food Handlers at Food Vendors, Night Market, Larantuka City Park, East Flores Regency

Food handlers are people who are directly in contact with food and equipment from the preparation, cleaning, processing, transportation to serving stages. In the food processing process, the role of food handlers is very large. Food handlers who handle food ingredients often cause microbiological contamination. Food handlers in carrying out food handling service activities must meet the requirements [8].

Personal hygiene is a way of human self-care to maintain their health. Personal hygiene is very important to know. Maintenance of personal hygiene is necessary for individual comfort, safety and health. Important things that become principles of food hygiene and sanitation include healthy and clean behavior of people who manage food, food sanitation, equipment sanitation and processing site sanitation [9].

The role of food handlers is very important in maintaining the quality of food. Things that must be considered in maintaining the quality of food is the personal hygiene of a handler which is listed in the Minister of Health of the Republic of Indonesia. No. 1096/Menkes/Per/VI/2011 includes: having a special certificate of food sanitation hygiene, being in good health as evidenced by a doctor's certificate, not suffering from an infectious disease, every handler must have a valid health examination book, all food ingredients used in the food processing process, the role of food handlers is very important. Protected from direct contact with the body, protection of direct contact with food is carried out using tools such as: disposable plastic gloves, food tongs, spoons/forks. To protect against contamination of food, one must use an apron or apron, hair cover,
waterproof shoes, behavior while working or processing food not smoking, not eating or chewing, not wearing jewelry, not using utensils and facilities that are not for their needs, not washing hands before work, after work, and after going out of the toilet, always wear proper work clothes and protective clothing, always wear clean work clothes, don't talk much and always cover your mouth when coughing or sneezing, don't comb your hair near contaminated food. will be and have been processed [10].

The results showed that 69.2% of food handlers did not meet the requirements for personal hygiene, there were still many food handlers who had long nails, wore nail polish, did not use headgear, did not wear work clothes, rarely washed their hands when serving and managing food. It is also seen that there are still many observers who are still used to scratching their bodies, ears and some body parts while on location. There are also male traders who smoke and forget to wash their hands before handling food. This condition greatly impacts and risks the quality of food, especially for the health of consumers or customers. Most food handlers forget or even care to apply personal hygiene in their workplace. The risk of experiencing unwanted events may occur, handlers should be able to ensure that they continue to improve personal hygiene so that they can better guarantee and prevent germ contamination of food that is processed and served to consumers or customers. When asked about infectious diseases in the handlers, all of them said that when they experienced one of the diseases, they would stay at home and return when they were completely healthy again.

Research conducted by Ika et al., in 2020 stated that from behavioral observations it was known that food handlers behaved unhygienically including not wearing closed shoes as much as 96.5%, not wearing work clothes as much as 87.5%, not wearing masks as much as 77.2%, not wearing covering the head as much as 71.9%, not wearing gloves as much as 50%, not wearing an apron as much as 33.3%, conversing as much as 28.1% and not covering cooked food as much as 25.9%, compliance in personal hygiene is mostly 89.5% with poor compliance category [11]. Another study by Arrazy in 2020 that the results showed that food handlers were still found not using hygiene support tools such as gloves 68.0%, aprons 68.0% and hair coverings 58.0% from 150 traders [11].

One of the food sanitation hygiene efforts is to improve the personal hygiene of food handlers which is the key to success in safe and healthy food processing. Personal hygiene of food managers can be achieved if they have awareness which is the key to success in safe and healthy food processing [11].

2. Overview of Tableware at Food Vendors at Night Market Larantuka City, East Flores Regency

Equipment is an item used for handling street food. Types of food utensils in the form of plates, glasses, made of plastic, melamine, glass, stainless steel and ceramics. While spoons and forks are made of plastic or stainless steel. Protection of tableware starts from the state of the material. Good materials are materials that are insoluble in food, easy to wash and safe to use. Cutlery is intact, safe and strong. Utensils used to process and serve street food must be in accordance with their designation and meet sanitary hygiene requirements. Do not reuse equipment designed for single use.

The results of the research that have been carried out have found that 76.9% of the equipment used has met the terms and conditions. There are still 23.1% of the equipment used is included in the category that does not meet the requirements. Based on observations made by researchers, snack food utensils are washed after each use using soap and clean water and replace if they are not feasible and snack food utensils are dried by draining and covered or protected from contamination. However, there are still some food utensils that are still not clean, such as the place to put chili sauce that is not washed and replaced often so that it looks less clean and doesn't taste fresh and tasty anymore. Eating utensils must really pay attention to conditions and cleanliness in order to prevent and avoid contamination with germs and bacteria, so that they can make consumers or customers more comfortable and get maximum service both in terms of health and also the services provided by the handlers at the night market.

The results of research conducted by Nirwana in 2017 showed that 20 of the 21 samples of children's tableware contained gram-positive and gram-negative bacteria. The types of bacteria that grow on children's cutlery under study are Bacillus sp, Klebsiella sp, Enterobacter egglomerance, Acinetobacter calcoaceticus, Proteus vulgaris, Providencia alcalifaciens and Enterobacter hafniae. Cutlery is a tool that is in direct contact with food ingredients. Cleanliness of cutlery is important and can affect the quality of food, so the cleanliness of cutlery should be paid more attention. The presence of bacteria as disease-causing agents is not allowed on tableware [12]. Another study by Haderiah in 2019 where the variable of the tableware washing process was that 1 trader (17%) met the requirements, and 5 traders (83%) did not meet the requirements. The results of measuring the bacteriological content on cutlery from 18 samples (100%) of cutlery did not meet health requirements [13].

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3. Overview of water, food ingredients, additives and presentation at the Night Market Food Vendors at Larantuka City Park, East Flores Regency

To get clean and healthy food quality, it is also necessary to have water that meets the requirements and is sufficient in a food processing business. Any clean water used to make drinks must be cooked to a boil and must come from a qualified source. In addition to the need for clean water, clean and healthy food ingredients are also an important component in a food processing business. All food ingredients that are processed into food must be in good quality, fresh and not rotten. All processed ingredients in packaging that will be processed into food must be registered with the Ministry of Health, not expired, not defective or not damaged. Besides that, the use of food additives or food additives must be in accordance with the provisions of the applicable legislation, food ingredients and food additives must be stored separately, food ingredients that are easily damaged or spoil quickly must be stored in separate containers. The food served must be in a place/equipment that is clean and safe for health. The food sold must be wrapped or closed, the packaging used must be clean and not polluting the food, the wrapper is prohibited from being blown. Another important component is that food transportation must be closed or wrapped and in clean containers, food transported must be in separate containers from raw materials so that it is protected from contamination, and food that is ready to be served and has been more than 6 (six) hours if it is still in good condition, it must be reprocessed before serving.

The results showed that 53.8% of the water, food ingredients, additives and servings used had met the requirements. The results of the observations found that the food ingredients, food additives, and presentation had complied with the applicable regulations. There is still 46.2% of water, food ingredients, additives and servings that are used do not meet the requirements. The results of observations, it was found that the water used by most of the traders used gallon water and one of the traders used water from dug wells to be used as drinks. Every gallon of water used does not necessarily meet the requirements for good and healthy drinking water quality. The results of a study in the city of Bogor on 27 refill water depots found 2 (7%) depots contaminated with bacteria. This shows the poor quality of refill drinking water [14].

4. Overview of Vendor Facilities at Food Vendors, Night Market, Larantuka City Park, East Flores Regency

Vendor facilities are facilities used for handling street food, both settled and moving. Vendor facilities also play an important role in producing a good and healthy quality of food. Any food that is sold under the advice of a vendor must be constructed in such a way as to protect the food from contamination. Each construction must be easy to clean, clean water is available, there is also a food storage cupboard, there is also a ready-to-eat food storage cupboard, a utensil storage area, every food, prepared food and utensil storage cupboard must have cloth or curtains to cover it so that it avoids insects, and other contaminants, besides that there must be a trash can in every selling cart.

The results showed that 100% of the vendors used did not meet the requirements. Based on the observations of the vendors, it was found that all food vendors did not have food storage cabinets. Every food ingredient that will be processed is stored together with the finished food without paying attention to the room temperature of the food ingredients in one storage cabinet (storefront). Each storage cupboard has no cloth or curtains to cover. This condition will be very vulnerable to insects and other pollution.

The results of research by Wiji et al., in 2016 stated that the storage of food ingredients found in two meatball traders did not meet the requirements. This happens because traders do not pay attention to the place and temperature of food storage [15]. In addition, research by Aristin at al., in 2014 examined the storage of food ingredients at fresh vegetables traders, it was found that from 15 traders, 10 traders had food storage places that did not meet the requirements because food ingredients were placed in open containers so that they could be contaminated [16]. In addition, research from Butler et al., 2010 explained that bacteria from house flies that become pathogens in humans can be contaminated in processed food storage areas. The bacteria found in house flies close to areas where the cooking process can pose a potential health risk to humans if flies enter and no precautions are taken from prepared food storage areas [17].

CONCLUSION

The personal hygiene of the handlers at the Night Market Food Handlers, Larantuka City Park, East Flores Regency has not fully met the requirements because there are still some aspects of personal hygiene that have not been fulfilled properly by the handlers. The food utensils at the Night Market Food Vendors in Larantuka City, East Flores Regency have met the requirements and this condition must be maintained in order to prevent contamination with germs and bacteria. Clean water and food ingredients, Night Market Food Traders, Larantuka City Park, East Flores Regency, have not fully met the requirements because there are still some items that have not been fulfilled properly, especially in the use of water, most of which does not come from sources that meet the requirements. The existing vendor facilities used at the Night Market Food Traders, Larantuka City Park, East Flores Regency, have not fulfilled the requirements for the items of storage cabinets for food ingredients and ready-to-eat foods that are combined. And also storage cabinets that do not use curtains so that they have the potential to increase food contamination. It is recommended for
managers and the local Health Office to further increase outreach activities with more effective methods of food hygiene and sanitation to traders at the Taman Kota Larantuka night market, and to night market traders. It is recommended to market traders to improve personal hygiene and food sanitation in order to creation of clean and healthy snacks.

Conflict of Interest
This article is strictly ensured that there is no conflict of interest, collaboration, or other interest with any party.

THANK-YOU NOTE
We would like to thank the night market traders who have been willing to take the time to participate in the research and to all those who have helped so that this research can be carried out properly.

REFERENCE


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