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**RELATION OF RESTAURANT HYGIENE AND SANITATION WITH  
THE BACTERIOLOGICAL QUALITY ON RESTAURANT IN THE  
PORT OF TANJUNG PERAK SURABAYA IN 2020**

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**ABSTRACT**

Outbreak of food poisoning in Indonesia for the period 2000-2015, the results of research using a systematic and quantitative study approach stated that outbreaks were increasing every year. 60% of food poisoning is thought to be caused by bacteria, without being proven by laboratory test results that the cause of the outbreak is bacteria. The highest causative pathogenic bacteria in food poisoning cases include *Escherichia coli*, *Bacillus cereus*, *Staphylococcus sp.*, *Salmonella*. The purpose of this study was to determine the relationship of hygiene, food sanitation and restaurant sanitation with the bacteriological quality of restaurants in the port of Tirtanadi Surabaya in 2020. This research is analytical descriptive research and reviewed from time aspect is cross sectional. Number of sample is total population that is 17 restaurant in the Tirtanadi port of Surakarta. This research conducts in observationally and laboratory test method with using Exact Fisher test. Research result of restaurant hygiene and sanitation is 82%. For microbe *E.Coli* existence is positive in 2 restaurant obtain microbe *E.Coli*. This show that there is correlation between hygiene, food sanitation and restaurant sanitation to quality of food bacteriological with each  $P= 0,022$ . The Conclusion is correlation between hygiene, restaurant sanitation and food sanitation is axist toward quality of food bacteriological. Management of food hygiene by restaurant must need sanitation and food-processing done in the way of good.

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## PRELIMINARY

### Background

Food has an important meaning in human life, providing substances necessary for energy and growth, therefore food must be meet security requirements. Safe food is an important factor for improve health status (Sienny and Sherli, 2010: 641) According to Agustina, et al food is a basic human need to continue his life. Wrong one way to maintain health is to consume safe foods, that is, by ensuring that the food is in good condition and is avoided

Whole someness (disease) (E. Setyorini, 2013). Food safety is a public health problem constant, supported by the fact that in developing countries congenital diseases food or foodborne disease continues to increase (Webb and Morancie 2015) Safety food is basically an effort to hygiene food sanitation, nutrition and safety (Nurlaela, 2011: 2). Marriot (1999) states that one of the factors supports security food is sanitation. Food sanitation is very important, especially in places that are closely related to food service for many people. (Laila, 2016). Food sanitation hygiene in the Permenkes RI on Hygiene Requirements Restaurant and Restaurant Sanitation is an effort to control risk factors contamination of food, whether from foodstuffs, people, places and equipment to be safe for consumption (Gusti Ayu, 2016)

Based on the background of the problems mentioned above, the problem can be formulated as the following "Is there a relationship between restaurant sanitation hygiene with quality bacteriological food in the restaurant at the Port of Tanjung Perak Surabaya?"

Hygiene is a health effort by maintaining and protecting the subject of hygiene such as washing hands with clean water and soap for protect hand hygiene, wash dishes to protect dish hygiene, dispose of damaged food parts to protect the integrity of food overall (PPSDM, 2018)

Food is all substances needed by the body excluding water, drugs, and other substances used for treatment. Food healthy is a basic human need that is needed at all times and must handled and managed properly and correctly. Food has the potential for E.coli starting from food ingredients and freshly cooked food. Most of the handlers cold drinks (fruit ice) did not meet the health requirements by the discovery

Purchased foodstuffs should be stored in material storage food. RI Minister of Health Decree No. 715 of 2003 (Minister of Health Republic of Indonesia, 2003a) concerning the Sanitation Hygiene Requirements of Jasaboga requires available space or warehouse for storing foodstuffs and there are facilities for cold food storage. From the results of research by Sukmara (2002), 68% of traders street vendors do not have a place to store groceries because they buy ingredients food to cook for the day

## RESEARCH METHODOLOGY

The Port of Tanjung Perak Surabaya is a first class port in Indonesia, where the traffic of ships in and out of the port is high. This port is wrong a gateway port in Indonesia. Because of its strategic geographical location as well potential then the port of Tanjung Emas is also the center of intersulair shipping Eastern Indonesia. Tanjung Emas

Harbor is located on the edge of the Madura Strait at North of Surabaya City, the whole area covers an area of 2,218 hectares which consists over waters covering an area of 1,634 Ha and land area of 584 Ha. Tanjung Emas port located at a position between east longitude 112° 30'13 " and latitude 7° 7'30 ". As an export and import port, Tanjung Emas is the gateway to the region East Java and its strategic location and is an economic potential of Java East.

## RESEARCH RESULT

### 1. Examination of the bacteriological quality of food at the restaurant in the port of Tanjung Perak Surabaya

Table 1

Bacteriological examination results of food at restaurants in the port Tanjung Perak Surabaya in 2020

No	E. Coli bacteria amount	amount	Percentage (%)
1	Positive	3	18
2	Negative	14	82
<b>amount</b>		<b>17</b>	<b>100</b>

Based on table 5.1 above, it is found that the restaurant has the food 3 restaurants (18%) were positive for *E. coli* bacteria. Meanwhile 14 restaurants (82%) did not contain *E. Coli* bacteria.

### 2. Results of Sanitation Hygiene Assessment for Restaurants in Restaurants in Tanjung Perak Surabaya Harbor

Table 2

Distribution of Restaurant Sanitation Variables in Harbor Restaurants Tanjung Perak Surabaya in 2020.

House sanitation	House sanitation	House sanitation
Qualify	14	82
Does not meet the requirements	3	18
<b>amount</b>	<b>17</b>	<b>100</b>

Hygiene for restaurant sanitation based on table 5.2 above shows that which is meet the health requirements, namely 14 restaurants ( 82 %), while those 3 restaurants (18%) did not meet the health requirements

### 3. Location and building requirements for restaurants at the port of Tanjung Perak Surabaya

Table 3

Location and building of restaurants in Tanjung Perak Harbor Surabaya in 2020

Location and Building	Number of restaurants which filled the whole criteria	Number of restaurants that doesn't fulfill all criteria
Location and layout	17	0
Floor	16	1
Wall	17	0
Ventilation	17	0

Lighting	17	0
Ceiling	14	3
The door	15	2

Of the 17 restaurants assessed, 14 restaurants, 3 restaurants are not meet the ceiling criteria, 2 restaurants do not meet the criteria for doors and only one restaurant that does not meet the door criteria

#### 4. Requirements for sanitation facilities at restaurants at the port of Tanjung Perak Surabaya

Table 4

Sanitation Facilities at Restaurants in Tanjung Perak Port, Surabaya the year 2020

Location and Building	Number of restaurants which filled the whole criteria	Number of restaurants that doesn't fulfill all criteria
Clean water	17	0
Waste water disposal	3	14
Trash	13	4
The sink	15	2
Employee locker	16	1

Above explains the requirements for restaurants to fulfill 5 criteria for sanitation facilities, 14 restaurants do not meet the criteria for disposal wastewater, 4 restaurants do not meet the criteria for trash cans, 2 houses eating does not meet the criteria for sink and 16 restaurants that have not have lockers

#### 5. Requirements for the kitchen, dining room, and food warehouse at the restaurant at the port of Tanjung Perak Surabaya

Table 5

Kitchen, Dining Room and Food Warehouse at the Restaurant at Tanjung Perak Port Surabaya in 2020.

Location and Building	Number of restaurants which filled the whole criteria	Number of restaurants that doesn't fulfill all criteria
Kitchen	13	4
Dining room	6	11
Food warehouse	13	4

Above can determine the number of restaurants that fulfill criteria for the kitchen, dining room and food warehouse. The most difficult dining room fulfilled, a total of 14 restaurants did not meet this criterion. Restaurant 13 restaurants that meet the kitchen and food warehouse criteria.

#### 6. Requirements for food and finished food at the restaurant at the port of Tanjung Perak Surabaya

Table 6

Foodstuffs and Prepared Food at restaurants in Tanjung Harbor Perak Surabaya in 2020

Foodstuffs and finished food	Number of houses eat that fulfills all criteria	The number of restaurants that are does not fill the whole criteria
Processing food with use the cook wareb clean,	15	2

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done with right, use tools  
special and performed by  
handmaid in clothes clean  
and correct.

Above shows the criteria for food processing that must be filled with restaurants. Restaurants that meet all the criteria food processing as many as 15 restaurants and not all of the criteria as many as 2 restaurants.

## 7. Requirements for storing foodstuffs in restaurants at the port of Tanjung Perak Surabaya

Table 8 Storage of foodstuffs in restaurants at the port  
Tanjung Perak Surabaya in 2020

### DISCUSSION

The results of research conducted at TK Bahtera Mojokerto showed a *p-value* of 0.001 which means that there is a relationship between parenting *styles and picky eating* behavior in pre-school children. This is in line with Nafratilawati's research which shows that there is a relationship between parenting and eating difficulties in children [7]. Parenting style is closely related to the pattern of feeding the child. Parents who use democratic parenting tend to let the children are free but still there are restrictions or rules given by knowl n dalian of them. Parents with this parenting style continue to supervise directly and pay attention to their children. Children are given responsibility so that children can freely carry out activities and interact with their environment.

More democratic parenting uses *responsive feeding in feeding* patterns. *Responsive feeding* is the behavior of recognizing feelings of hunger or fullness shown by children, as well as how parents respond to this. So, there will be a response of hunger and satiety followed by the response of the parents to feed or stop feeding. There are five principles in *responsive feeding* in children, including providing food to children directly and helping children eat themselves, feeding slowly and patiently, experimenting with various dishes if the child refuses to eat, minimizing distraction when eating, and showing affection and contact. eyes with the child when eating [8]. The application of democratic parenting can affect eating behavior in pre-school children. This is in line with the results of the research that most children with democratic parenting do not experience *picky eating* (as many as 20 respondents / 57%). The child can eat independently and there is no difficulty when the child is fed.

Children who are cared for with a permissive pattern will tend not to be directed This parenting style applies a soft, helpless, and gives freedom to children without any rules / restrictions. This is because parents are too fond of children so that children behave according to their own will and do not care about the rules in their environment [9]. Permissive parenting shows that most children experience *picky eating* (as many as 9 respondents / 60%). This study is in line with Najib's research that children with permissive parenting experience problems with eating difficulties [10]. This is due to the habits of parents who always obey the wishes of their children. Parents are too attentive and give freedom according to what their children want so that even when giving food, children tend to like to choose food and snacks instead of bringing supplies from home.

Authoritarian parenting in children tends to apply tough and assertive relationships. Children will do what they have to do as a result of pressure or out of fear of punishment. In feeding, usually the parents will give a firm attitude to the child so that the child does not eat because of hunger, but because of fear. The results obtained show that children do not have *picky eating* behavior when cared for using an authoritarian style. Parents who use pressure or restrictions in parenting will result in the child being non-responsive when it comes to feeding practices.

From the analysis of the researchers, it can be seen that the parenting styles applied by parents in the child's life will affect their growth and development, not to mention their feeding patterns. Basically, pre-school children do enter a period of *picky eating* where children become fussy and like to choose food. When children enter this period, parents should always provide assistance to children. Involving the child in every food need will allow the child to go through the period of *picky eating*. In addition, at this time the child is also in the imitation phase. Imitating the eating habits of their parents so that parents who have a good diet, children will have a good diet too.

### **TO CONCLUDE**

Based on the research objectives described earlier, it can be concluded that children are not *picky eating* and parents have democratic parenting in the stages of their child's growth and development. The result of the analysis of *Chi-Square*  $\chi^2$  shows that there is a relationship between parenting behavior of parents with *picky eating* at pre-school age children.

### **SUGGESTION**

The results of this study are expected to add information to parents about the types of parenting that are good for their children, especially pre-school children. With the application of good parenting, children will be able to develop their abilities so that they will increase independence in children, especially in a good diet. For future research, we can analyze other factors that influence the incidence of *picky eating* in pre-school children.

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