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THE RELATIONSHIP BETWEEN KNOWLEDGE, ATTITUDES, AND TRAINING OF FOOD HANDLERS WITH GOOD FOOD PRODUCTION METHODS IN FOOD HOUSEHOLD INDUSTRIES IN KOTA BARU SUB-DISTRICT, JAMBI CITY

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ABSTRACT

Background : In this world, food safety management was poor. In addition it has increasing every year and it would be food poisoning. A way to good food production for the household industry (CPPB-IRT) really need to be considered, because they can be dangerous for consumers. The aim this studi to analyze knowledge, attitude, and training with CPPB-IRT. The purpose of the study was to determine whether there was a relationship between knowledge, attitude, training of food handlers and CPPB in the home industry industri.

Method : The type of this stiudy is quantitative with cross sectional design. Sample in this research are 60 respondents were selected using the Total Sampling method. The dependent variable is CPPB and independent variable are knowledge, attitude, and training participation in good and correct food production methods. Data was collected by means of interviews. Analysis using Chi Square.

Research result : The results of this study indicate that 44 out of 60 (73.3%) respondents with bad CPPB and 16 (26.7%) respondents with good CPPB. There are significancy relation between knowledge (P-value=0,038; POR=4,1) and attitude (P- value=0,015; POR=5,2) with CPPB. There is no relation with training with CPPB.

Conclusion: There are significancy relation between knowledge and attitude with CPBB. There should be training to increase the knowledge of employees that have an impact on a positive attitude for CPBB accomplished

Keywords: Knowledge, Attitude, Training, CPPB

Introduction

Food and drink are expected by humans to continue their lives, healthy food is always coveted by everyone including trading. The food to be consumed must be healthy food, with the intention of having a high nutrient content which consists of vitamins, fats, and other substances. Food can be served well, and intact and does not contain harmful substances. If one of these factors is disturbed, the result of the food will be poisonous and even become a disease.¹

Food that lacks hygiene and sanitation will be very easily contaminated by various factors that result in changes and damage to the elements or nutritional value in food. Eating food that has been contaminated can disrupt health and cause food poisoning. The number of contaminated foods indicates that there is a high threat to the public to the emergence of diseases caused by unclean food. The largest source of contamination is caused by people in charge of handling food who can transmit microorganisms to food. This makes it difficult to make food free from microorganism contamination.²

Food managed by staff is the largest source of contamination transferring microorganisms to food, namely from the human body and from contaminated food managed. Even at the beginning of harvesting, processing, storage, and distribution food will be at risk of contamination by microorganisms. Therefore, the cause of food is difficult to avoid due to contamination by microorganisms.² Sanitary and hygienic food conditions are important aspects that must be considered by everyone. Both consumers and those who manage food. In the world, this aspect is very important because it is related to several cases such as food poisoning (foodborne diseases). Bubzy and Robert (2009) reported that in the United States, there are 75 million cases of food

poisoning every year 325,000 people are treated and 5,200 cases of death. In addition, WHO reported that as many as 18% of children under five years old die from diarrheal diseases.⁴

Cases of food poisoning in the world continue to occur every year, at least 1 in 10 people become ill due to eating contaminated food, resulting in up to 420,000 deaths each year. The most vulnerable group for food poisoning is children under five years old with up to 125,000 deaths occurring every year. Most of these cases are caused by diarrhea. Other serious consequences of foodborne illness include kidney and liver failure, brain and neurological disorders, arthritis, cancer, and death.⁵ As international trade in the food industry increases, so does the risk of food contamination and the transportation of infected food products across national borders. Developing cities as well as climate change, migration, and growing international travel exacerbate these problems and expose people to new hazards. Foodborne diseases are a growing public health problem worldwide. However, many occur in low- and middle-income countries or developing countries.³

Cases of foodborne disease (FBD) have increased in almost all regions of Indonesia. Based on data from the Directorate of Environmental Health and the Public Health Emergency Operation Center (PHEOC) of the Ministry of Health of the Republic of Indonesia, there were 163 food poisoning outbreaks, 7,132 cases with a Case Fatality Rate (CFR) of 0.1%. Food poisoning outbreaks are in second place of outbreak reports submitted to PHEOC, after diphtheria outbreaks. This shows that food poisoning outbreaks are still a public health problem that must be prioritized. The tendency of food poisoning outbreaks is still mostly sourced from ready-to-eat food. Based on the type of food, food poisoning outbreaks generally come from home industry production (P-IRT) (36%) per province in Indonesia. In addition, processed food (20%), snacks (13%), and others (5%).⁶

Based on data from the BPOM (Food and Drug Monitoring Agency), there have been a number of food poisoning incidents in Indonesia. In 2016, 3,351 people were sick and 7 people died due to food poisoning. One of the dominating causes of food poisoning in Indonesia is processed household production as many as 29 (49.15%) cases.⁷

P-IRT is a business that can carry out production activities in a residential area with equipment that is manual or semi-automatic technology.⁸

Based on data from the Jambi city environmental health field report (2017-2019), the coverage of public food processing places (TUPM) that meet health requirements in the working area of the new city sub-district was obtained, in 2017 ranging between (65-69%). However, in 2018 it decreased dramatically to the range of (25-35%). In contrast to 2019, there was an increase, namely (55-75%). This P-IRT percentage is classified as fluctuating (up and down), in 2019 it increased but did not exceed 2017, raising concerns about the lack of control of food sanitation in the P-IRT which will interfere with food safety.⁹

In order to maintain good food safety, we use CPPB (How to Produce good food) is a guideline commonly used by the food industry in producing quality and high-quality food so that it is safe for consumption.¹⁰ The Good Food Production Method is also a guideline that explains how to produce food so that the quality is safe and suitable for consumption. The Indonesian government through the Food and Drug Monitoring Agency (BPOM) has regulated efforts to improve food safety in accordance with BPOM No. HK. 03.1.23.04.12.2206 Regulations on guidelines for good food production methods in the Household Industry.¹¹

Inadequate food safety knowledge of food handlers can lead to unsafe food handling practices and cross-contamination in the food industry. The quality of good food production in the home industry can be influenced by the attitude of food handlers, and the production of both types of heavy food and snacks such as cakes. Therefore, with the implementation of CPPB, product quality can be improved so that this can increase consumer confidence in product food safety.¹²

Methods

The type of research used in this study is analytical quantitative research with a cross-sectional design approach. The population in this study were all household industries in Kota Baru sub-district. The sampling technique used was the Total Sampling method. The research instrument used a questionnaire sheet, then the data was processed through

data editing, data coding, data entry, data cleaning, and data processing, then bivariate tests were carried out using the Chi-square statistical test with a significant level of 95% to determine the relationship between each independent variable and the dependent variable and multivariate tests using multiple logistic regression with a significant level of 95%.

Results and Discussion

Table 1. Distribution of Respondents by Gender Category

Characteristics	Total	(%)
Gender		
Female	53	88,3
Male	7	11,7

Table 2. Distribution of Respondents by Education

Characteristics	Total	(%)
Not graduated from elementary school	1	1,7
Graduated elementary school	1	1,7
Junior high school graduate	1	1,7
High school graduate	34	56,7
Academic / PT	2	3,3
Academic/Higher education	2	3,3
Junior high school/equivalent	2	3,3
Senior high school/equivalent	17	28,3
Total	60	100,0

In table 2. the education of respondents is classified as high, the majority of respondents are high school graduates. In general, respondents in this study had the most education in the high category, namely high school graduates (56,7%), the average respondent was female, but there were still responses with poor knowledge on how to produce good and correct food in the home industry.

Table 3. Frequency Distribution of CPPB

Variables	Total	(%)
CPPB		
Bad	44	73,3
Good	16	26,7

In Table 3. It is known that the researchers found that the household industry in the new city sub-district did not meet the CPPB requirements (73,3%). This was observed using the inspection of household industry food production facilities and found 44 industries at levels III and IV. Industries that meet the CPPB requirements (26,7%), which means that the industry is at levels I and II, this internal audit is still carried out but is carried out in the industry with a frequency of 1 time in 2 months for level I and 1 time a month for level II.

Table 4. Relationship between Food Handlers' Knowledge and CPPB

Variables	CPPB						PR	(95% CI)	P-Value
	Bad		Good		Total				
	N	%	N	%	N	%			
Pengetahuan									
Bad	37	82,2	8	17,8	45	100	4,111	(1,184-14,727)	0,038
Good	7	46,7	8	53,3	15	100			

In Table 4. There is a difference in the proportion of respondents who have poor knowledge (80,4%) of CPPB compared to respondents with good knowledge (50,0%) of CPPB. The results of the analysis obtained there is a relationship between knowledge and CPPB with P-value = 0,038 and PR = 4,111 (95% CI = 1,148-14,727) which means that poor knowledge has a 4,111 times greater risk of experiencing poor CPPB.

Table 5. Relationship between Food Handlers' Attitudes and CPPB

Variables	CPPB						PR	(95% CI)	P-Value
	Bad		Good		Total				
	N	%	N	%	N	%			
Attitude									
Bad	37	82,2	8	17,8	45	100	5,286	(1,484-18,822)	0,015
Good	7	46,7	8	53,3	15	100			

In Table 5. There is a difference in the proportion of respondents who have a poor attitude (82,2%) toward CPPB compared to respondents with a good attitude (46,7%) towards CPPB. The results of the analysis obtained that there is a significant relationship between attitude and CPPB characterized by P-value = 0,015 and PR = 5,286 (95% CI = 1,484-18,822), it can be concluded that a bad attitude will risk 5 times becoming a bad CPPB.

Table 6. Relationship between food handler training and CPPB

Variables	CPPB						PR	(95% CI)	P-Value
	Bad		Good		Total				
	N	%	N	%	N	%			
Training Participation									
Never	39	76,5	12	23,5	51	100	2600	(0,601-11,256)	0,230
Ever	5	55.6	4	44.4	9	100			

In Table 6. There was a difference in the proportion of respondents who did not attend training (76,5%) on CPPB compared to those who attended training (55,6%) on CPBB. The results of the analysis showed that there was no relationship between training participation and CPPB with P-value = 0,230 and PR = 2,600 (95% CI = 0,601-11,256).

Food safety training that has been obtained by food handlers is new knowledge about how to produce good food and maintain food quality towards food and beverage hygiene and sanitation behavior before and after training. So that the training program provided is in accordance with existing regulations ranging from basic principles to CPPB practices, while the training provided includes:

- A. Basics of employee hygiene and processed food to food handlers
- B. Factors that cause quality degradation and spoilage of processed food including those that favor the growth of pathogenic microorganisms and spoilers.
- C. Factors that cause illness and poisoning through processed food.
- D. CPPB including handling, processing, storage, packaging, and transportation.
- E. Principles of sanitary cleaning of machinery or other equipment and other facilities
- F. Handling of cleaning agents or hazardous chemicals for food handlers.

In this research the researchers found that as many as 51 (85%) did not take part in the training based on the answers obtained in the field, the respondents said that the training was only obtained at the beginning of the P-IRT registration and there were even respondents who did not receive training from the beginning, even the respondents stated that they were very willing to take part in the training so that the products they produced could maintain the health of buyers and be safe for their buyers, however, out of 60 respondents only 9 (15%) took part in the training but also rarely took part in the training only when they took part in the training at the beginning of the registration.

So in this research, it was found that there was no relationship between training participation and good and correct food production methods with a P-value of 0,230% ($P\text{-value} > 0,05$) with an alternative test, namely the fisher test.

Of the 60 respondents who had attended training, only 9 people had never attended the training 51 people, so it can be seen from the difference between food handlers who have attended training and those who have never attended training, handlers who take part in training gain more experience and knowledge than those who have never attended the training.

Conclusions

The results showed that there were characteristics of food handler respondents in gender, namely female 53 (88,3%) and according to education, namely high school graduates 34 (56,7%). There is a significant relationship between knowledge variables and good and correct food production methods in the household industry in Kota Baru District in 2021. There is a significant relationship between the attitude variable and the good and correct food production methods in the household industry in Kota Baru District in 2021. There is no significant relationship between the variable of training participation in the household industry in Kota Baru District in 2021.

Suggestions

It is expected that the local household industry processing industry pays more attention to the organization of food in the nutrition installation both in terms of policies, facilities, and the surrounding environment that allows contamination of food in nutrition installations. For the health department to be able to conduct training evenly so that household production will take part in training every time training is held so that product knowledge is even wider and can make efforts to periodically check or internal audits on household products according to the level of CPPB assessment.

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