

Food handlers' perceptions of the establishment of a healthy canteen at Jambi University

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Abstract

Background: In 2014 the POM Agency reported cases of food poisoning in various parts of Indonesia. One of these cases was caused by 15 cases of street food with 468 victims, and 1 case of poisoning due to catering services totaling 748 people. So, therefore the destination study is for knowing the perception of handler food to the establishment of a healthy canteen at the University Jambi.

Method: The research was conducted qualitatively using approach observation and Interview deep. The research subjects were 15 people consisting of 8 informants Main is a food handler and 7 person informant supporters, namely 3 Business Management Agency and 4 students.

Result: The perception of food handlers on the establishment of a healthy canteen at Jambi University is quite good. The perception of vulnerability in the establishment of canteens at Jambi University is still not good. Likewise, the perception of barriers to food handlers when establishing a healthy canteen at Jambi University is also still less than optimal. Then the readiness of food handlers for the establishment of a healthy canteen at Jambi University is still inadequate and there are benefits from the establishment of a healthy canteen at Jambi University

Conclusion: The perception of food handlers towards the establishment of a healthy canteen at Jambi University is quite good. However, perceptions of vulnerability, barriers, and readiness related to the establishment of a healthy canteen at Jambi University are still not optimal and there are benefits in establishing a healthy canteen at Jambi University. It is hoped that the canteen at Jambi University will make a policy regarding this matter, improve facilities and infrastructure and provide training to food handlers to increase knowledge about healthy canteens.

Keywords: Food Handlers, Healthy Canteen, Hygiene

PRELIMINARY

In Indonesia, healthy campuses have been initiated by several universities including Gajah Mada University. A healthy campus has a main activity target, one of which is a healthy diet through a healthy canteen. Universities in Indonesia are still minimal in providing canteen facilities that meet health standards. This can be seen from the provision of food and beverages provided. A

healthy canteen is not only a place that provides healthy food and drinks for its citizens but a place that pays attention to the quality of raw materials, the cleanliness of the food handlers, and the management of eating the drinks. This is also supported by the statement given by the Ministry of Health, Director General of PPPL (2013), that one of the factors to improve the degree of public health is that food management must meet

the requirements of personal hygiene and food sanitation so that individual hygiene and food sanitation efforts need to be carried out to create the quality of the food consumed is safe and free from disease.

The POM Agency in 2014 reported cases of food poisoning in various parts of Indonesia (1). One of these cases was caused by food poisoning as many as 15 cases of poisoning killed 468 people and 1 case of poisoning due to catering services where the number of victims was no less, namely as many as 748 people(1). One of the causes of the high number of food-related illnesses is a person's belief or point of view to carry out healthy living behaviors in their daily lives. A person's beliefs or views can be called perceptions. The perception formed by a person is influenced by thoughts and the surrounding environment and can be substantially different from reality. Perception does not only depend on physical stimuli but also stimuli related to the surrounding environment as well as the state of the individual concerned. As with the establishment of a healthy canteen program, it is necessary to have the same perception among food handlers regarding the importance of eating and drinking healthily for its citizens. This is supported by research conducted by Bukman et al (2014) stating that the perception of healthy eating patterns in people with low socioeconomic status was influenced by costs. This means that the community is willing to change their behavior when they feel complaints from the illness they are suffering from compared to changing their behavior to prevent the disease(2).

Food handlers are people who have direct contact with food starting from the preparation, manufacture, processing, cleaning, and serving stages(3). *Personal hygiene* from poor food handlers can cause food contamination caused by a lack of knowledge and awareness among the food handler to maintain personal hygiene(4). Similar to the research conducted by Lee et al (2017) which states that food handlers who have good knowledge but do not maintain personal hygiene are the same as not maintaining the quality of the food they

process(5). Research conducted by Irawati (2012) stated that there were 52.8% of food in the canteen of University X Depok contaminated by *Escherichia Coli bacteria* caused by a lack of *personal hygiene knowledge* from food handlers and other aspects (1). And it was recently reported that in October 2021 there were 62 students of the Madinatul Ulum Islamic Boarding School, Pamenang District, Merangin Regency, Jambi experienced food poisoning. The cause of this has not yet been investigated.

Based on studies Preliminary research conducted by researchers found that the canteen at the University of Jambi, especially on the Mendalo Campus, was proven to be minimal in selling healthy food and drinks. Of the 4 canteens on campus, the average food sold is mostly still not healthy. It is shown that there are still many foods that contain coconut milk, contain oil, and instant food. Unhealthy food can affect a person's health and one of them is a risk factor for non-communicable diseases (NCDs). This is also stated in the 2018 National Basic Health Research Report (RISKESDAS) which states that the indicators included in behavioral risk factors related to non-communicable diseases include the behavior of consuming health-risk foods, less consumption of vegetables and fruit, smoking and tobacco consumption, less physical activity, and consumption of alcoholic beverages(6).

Research from Kalsum (2021) stated that the number of lecturers who died during 2015-2021 was 25 people (2.5%). The main cause of death of lecturers at Jambi University is non-communicable diseases (96%). This is in line with data from the Indonesian Ministry of Health which states that Indonesia has experienced a trend of changing disease patterns in the last 30 years. In 1990 the trend of disease in Indonesia was communicable diseases such as respiratory infections, tuberculosis, and diarrhea. Then in 2010 the trend changed related to human behavior, namely non-communicable diseases such as high blood pressure, stroke, heart disease, cancer, and diabetes(7). Therefore, based on the problems that have been described in the background above, researchers are

interested and feel the need to research the analysis of **"Perceptions of Food Handlers on the Establishment of a Healthy Canteen at Jambi University"**

METHOD

The design of this study uses qualitative research. This research was conducted in the canteen at the University of Jambi, namely the canteen of the faculties of SAINTEK, Law, FEB, and FKIP. With the research time starting from April-June 2022. A total of 15 informants consisted of 8 Main Informants namely 2 food handlers from each existing canteen and 7 Supporting Informants namely 3 Business Management agencies and 4 students. The research equipment used included in-depth interview guidelines, observation sheets, documentation, and *voice recorders*. The data collection technique in this study was using in-depth interviews and observation. Sampling was carried out by *purposive random sampling*, namely the technique of determining the sample based on the characteristics or properties of a population that was previously known.

RESULTS

Food handlers' perceptions of healthy canteens

A healthy canteen is a canteen with a clean environment. A clean environment is an environment that is free from various impurities, including dust, garbage, and odors(8). This is supported by the statement given by the informant as follows:

"Yes, first of all, the most important thing is cleanliness. The thing is, it's not just for sale, it's clean, and we sellers also eat the food we sell. So everything is as clean as possible. Let it be for our health too, right?" (Saintek Canteen Food Handler, EV 40 Years)

Then the opinion of another informant who stated that a healthy canteen is not only one that has a clean environment but also that the food sold is also clean and has balanced nutrition.

"The food has good nutritional value, has good protein and vegetables" (Agrotechnology Student, MD 22 Years)

Furthermore, based on interviews conducted, the informants also mentioned that a healthy canteen is a canteen that is free from cigarette smoke. An explanation of his statement is contained in the following dialogue:

"A healthy canteen is a canteen where there is no cigarette smoke, Sis, then eat healthy and clean" (Law Student, SR 21 Years)

Based on the decision given by the Business Management Agency (BPU) related to a smoke-free area at Jambi University, it already exists. But if the policy for a no-smoking area in the canteen area is returned to the respective faculties, this is stated in the following dialogue:

"In terms of KTR, there is a deck at UNJA, but in the canteen area, it is returned to the respective faculties, whether it is allowed or not to smoke in the canteen area" (Secretary of BPU, BU 45 years)

Another opinion also says that a healthy canteen is a canteen that has a clean environment and is free from flies and other pests.

"The food you don't have is msg or not? Then what is guaranteed to be rich is to avoid flies. Isn't it normal if it's in the open, there are often flies like that, Sis" (Law Student, SR 21 Years)

In addition, some mention that a healthy canteen is also seen from the hygiene of the food handlers. Namely food handlers who maintain personal hygiene and use work equipment such as aprons, head coverings, and gloves. The following dialog explains the following statements :

"Oh yes, you have to wear an apron, and every time you hold the food, you have to wash your hands. Then all the food utensils must be washed." (Legal Canteen Food Handler, EN 50 Years)

Then in terms of service, all canteens are fairly good, namely the food handlers in the canteen are kind and friendly.

"The service is already friendly, Sis, like a seller in general. It's comfortable, it's just

cigarette smoke, it's the plague that sometimes bothers me" (Law Student, 21 Years SRP)

Food handlers' perceptions of the establishment of a healthy canteen at Jambi University

Based on the results of interviews conducted, food handlers said that if the establishment of a healthy canteen at the University was realized, they agreed to this, although in this establishment several requirements had to be met. His statement is contained in the following dialogue :

"Yes, if that's what our needs are, then we will continue. If it's all good for us and the children, what's the harm in following it? (Faculty of Law Canteen Food Handler, EN 50 Years)

This is also supported by students as supporting informants who stated that the establishment of a healthy canteen at Jambi University is a good thing because this program can have a good impact on anyone who feels it in terms of facilities, infrastructure, and services. The statement regarding the support for the establishment of this program is explained in the following dialogue:

"I agree, I agree. Maybe with Adonyo the establishment of this program so that this scientific canteen sells more vegetables, sells food that is boiled or burned, bro. Because right now, we have seen that a lot of them are sold, like fried foods or foods that are soft-coated, "(Agrotechnology Student, 22 Years Old MD)

Perceptions of food handlers' vulnerability to the establishment of a healthy canteen

From the explanation given by the student, one of the canteens at Jambi University for processed food still does not cover the food properly, such as using a food cover. Even though the average canteen already has a food window, it is based on the guidelines set by the Ministry of Health which states that one of the requirements for a healthy canteen is to cover processed food with a food cover. Then another narrative felt

by students who often visit one of the Jambi University canteens said that:

"If we think it's like can, it's a stomachache, because the fly likes to land in a dirty place. So, for example, if you didn't close it earlier, Dio landed on our food, so the food got dirty and caused a stomach ache. (FKIP Canteen Food Handler, MA 48 Years Old)

Another factor that can be a vulnerability in the establishment of a healthy canteen at Jambi University is that food utensils are still found that are not clean when washed. The results of interviews with supporting informants, the informant said that he still often found spoons or plates that were still greasy, and some glasses still smelled of soap. An explanation of this statement is contained in the following dialogue:

"The spoon is still greasy sometimes, Sis, then the plate is still the same as the glass, sometimes it still smells like soap. Sometimes the water is also not clean" (FKIP Student, PO 21 Years)

Furthermore, the factor that can cause a source of disease or vulnerability in this canteen is that in the canteen area there are still many flies flying around. These flies can cause disease if they land on some of the processed food in the canteen. The statement regarding this factor is explained as follows:

"We often see flies in this cafeteria too, Sis" (Law Student, 21 Years SRP)

Perception of the benefits of establishing a healthy canteen for food handlers

The purpose of implementing a healthy canteen at Jambi University will certainly provide benefits for consumers or food handlers who process the canteen. One of the benefits that can be felt is that the people of the University of Jambi do not need to worry about the food being sold because it is guaranteed to be safe, and clean and the nutrients contained in the food. Some of his statements are contained in the following dialogue:

"Yes, that was, so that everyone who eats will be healthy too. Because the food is already healthy, right ?" (Main Informant, EV 40 years old)

" The benefits of establishing a healthy canteen are hmmm, so people are more interested. Rich in terms of food, people don't worry anymore because hygiene is guaranteed. Don't worry about getting sick after eating. hhhm then for the food provided, it's also more secure, sis. Cleaner" (Agricultural Student, YES 21)

Another benefit that can be felt by the people of Jambi University if this program is properly realized by the University is that it can help several health programs that are being run by canteen consumers or food handlers themselves, for example, diet. With so many healthy foods and drinks sold by food handlers, people who are on a diet need not have trouble finding foods that are low in carbohydrates, fat, sugar, or oil. His statement is contained in the following dialogue :

"It's good, Sis, that means helping people who are on a diet program. So it helps to avoid rich foods that are high in sugar or foods that contain a lot of oil" (Law Student, SRP 21 Years)

Furthermore, other benefits that can be given are: there is a slight change in eating patterns to be healthier, such as consuming vegetables and fruit more often. As stated by one of the following supporting informants: there is a slight change in eating patterns to become healthier, such as consuming vegetables and fruit more often. Some of the statements that state these statements are explained in the following dialogue

"People are interested in eating there. Then because of the healthy canteen, people's interest in eating vegetables and fruit has increased" (Agrotechnology Student, MD 22 Years)

Perceptions of food handlers' barriers to the establishment of a healthy canteen

Before implementing this healthy canteen program, the University must also observe what are the obstacles if the program is to be realized. Based on the results of interviews conducted, here are some reasons that can be an obstacle for food handlers in establishing a healthy canteen at Jambi University, one of which is the unavailability of clean water sources in the canteen of the

SAINTEK faculty. This of course makes it difficult for food vendors to manage the canteen. The statement is explained as follows:

"The first one must be the water, right? Let us also make it easy to wash, right, because water is the main key. How can you be healthy if there is no water? If you can add the facilities, then also for the rent if you can, it can be balanced, right? Don't get too high. Especially now that the basic ingredients are more expensive." (SAINTEK Canteen Food Handler, E 40 Years)

Another obstacle experienced by these food handlers is that the food processing space is too narrow, especially in the canteens of the Faculty of FKIP, FEB, and Science and Technology. Based on the results of interviews conducted with the main informants, the informants complained that the processing room was too narrow so that when the canteen was at busy hours with visitors, they were not free and crowded. The following is a statement regarding this :

"For now, the room is still small, right? Very narrow. Suppose there are three of us here. Then it's always crowded, we can bump into each other like that, it's not free" (FKIP Canteen Food Handler, DE 50 Years)

Furthermore, what is felt to be an obstacle in the establishment of a healthy canteen at Jambi University is the distance between chairs which are still very close together. This was stated by the Student as a Supporting Informant because this can reduce the comfort when in the canteen and is stated in the following dialogue:

"Eh, in terms of the place, it's already, actually the standard of comfort already exists. It's just that if the visitors are crowded, it's too crowded" (Agricultural Student, YA 21)

Another indicator that can be an obstacle in establishing a healthy canteen at Jambi University is that of the 4 canteens, 3 of them do not have hand-washing sinks. From the results of interviews conducted, according to the main informant during the COVID-19 pandemic, the university only

provided gallons of water for washing hands, but after the COVID-19 period ended, these gallons of water were no longer provided. To overcome this, food handlers provide small basins filled with clean water for consumers who request hand-washing water. Statements regarding this are explained in the following dialogue :

"Ohh there's nothing here, at least there's only time for covid. And even then it is like a gallon of water for washing hands"
(Faculty of Law Canteen Food Handler, EN 50 Years)

The food handlers here also complain that the rent is too expensive. Based on the results of interviews conducted, the food handler said that the costs incurred with the opinions obtained were not worth it. Moreover, at this time the University of Jambi has just imposed a transition period so that there are not as many visitors as before, so food handlers hope that if this program is realized, it is hoped that the University will also think about the food handlers so that no one feels burdened or disadvantaged in establishing the program. this. The following is a dialogue regarding this statement:

"According to my mother, it's not appropriate, it's too expensive. Because we need it a lot, that's the first. Then the second, it's not one, there are six canteens. And besides, things are already expensive. Then it's also impossible to increase the price, what about the children." (Faculty of Law Canteen Food Handler, EN 50 Years)

Another obstacle that is felt by food handlers or consumers who often visit this canteen is that there is often an unpleasant smell such as the smell of stumps, garbage or others. This is certainly a very disturbing comfort when in the canteen, this is stated in the following dialogue :

"Ado often smells like starfish. Maybe it's because behind the canteen is a bit of a forest" (FEB Faculty Canteen Food Handler, AY 23 years)

Based on the results of joint interviews with the Business Management Agency (BPU) of Jambi University, the issue of the obstacles felt by food handlers has indeed

become one of the concerns. The BPU itself said that, for the improvement of facilities and infrastructure in which the canteen was submitted to the University Household, it was proven in the following dialogue:

"In terms of facilities and infrastructure, we have also submitted a deck to the University Household here. Yes, the name was yesterday after Covid, yes, it's been 2 years without any maintenance, so it's only natural that many are damaged. But we have already contacted the Universitas Households" (Secretary of the Business Management Agency, BU 45 Years)

Perceptions of readiness of food handlers towards the establishment of a healthy canteen

The establishment of this healthy canteen program certainly requires a lot of preparation, both in terms of facilities and infrastructure, services, and readiness from Jambi University itself. According to food handlers as students who often experience the facilities or services of the canteen they often visit, from the two groups of informants, there are two opinions, namely some say that the canteen is said to be ready as a healthy canteen and some informants say that the existing canteen is not yet ready. is said to be a healthy canteen. The statement that found that the existing canteen can be said to be a healthy canteen can be seen as follows:

"I'm ready, at least we can benefit each other, deck. If you want to prioritize cleanliness, that's fine, but don't burden the merchant too much either. The pay is expensive, right, so it's one-sided"
(Scientist Faculty Canteen Food Handler, SH 35 Years)

Then for other opinions say that the canteen at Jambi University cannot be said to be a healthy canteen due to many factors such as existing facilities, infrastructure, and facilities which are explained in the following dialogue :

"Eh, it seems that the facilities are inadequate. Because of what was said earlier, the place is still narrow, the floor of the canteen is also still dirt, bro. Then

also the roof is still from zinc so it's hot. So it's a bit uncomfortable" (Agrotechnology Student, 22 Years Old MD)

Policy regarding the rules of the Healthy Canteen at Jambi University

Based on the results of a joint interview with the Business Management Agency (BPU), the canteen at the University of Jambi does not yet have a specific regulation or contract agreement that regulates related to healthy canteens. The contents of the existing agreement only contain rights and obligations that must be followed by food handlers such as rental fees, responsibility for the cleanliness of the rented canteen and the type of food sold in each outlet must be different from each other. An explanation of this is contained in the following dialogue:

"Here, in the contract that we have made, there are no special regulations regarding the food being sold or regulations regarding the seller. The contents of the contract are rich in rental fees as well as rights and obligations that must be obeyed by the tenant" (Secretary of BPU, BU 45 Years)

As for the Centra Bisnis canteen, which has only been run in the last 3 months, and was later used as one of the pilot canteens at Jambi University, there is still no standard or special regulation related to food sanitation or hygiene of its food handlers. However, in the interviews with BPU, it is explained here that several employees have experience in the field of hospitality catering. So it is hoped that the skills and services provided can be better than the 4 existing canteens. The description of this is contained in the following dialogue:

"For a business center, it's a healthy or smart canteen, yes, if there is a safety deck there. There, their standards are like hospitality. If it's outside of our business center, in the future, we just want to implement the related regulations." (BPU Finance Staff, LE 40 Years)

"But we tried the employees here who are used to working in hotels. So I give this canteen a staff for each of them to

manage" (Responsible for Business Center, KY 56 Years)

Then, related to the gap in rental fees felt by the canteen handlers at the University of Jambi, this has been stipulated in the Rector's decree. And all of this is not based on a decision given by the BPU, the task of the BPU is only to regulate the administration of the canteen rental at Jambi University. The following dialogue explains the following:

"Oh yes, the rental issue has been stipulated in the Rector's Decree. So it's not BPU that charges tariffs. We're just here to manage the finances, and also let there be a legal umbrella. And the sellers also pay for it with a billing ID like students like you. And it goes straight to the University account. So we don't have any money here either." (BPU Finance Staff, LE 40 Years)

DISCUSSION

Food handlers' perceptions of the establishment of a healthy canteen at Jambi University

The development of healthy canteens in Indonesia has many development programs. Some schools with the Adiwiyata category have clean canteens and adequate facilities. One example is a sink with running water, a place for washing hands, a clean trash can, and a spacious seat(9). The informant believed that a healthy canteen is seen from clean food and a clean environment. The meaning of the environment here is the managed canteen environment, the cleanliness of the food handlers, or the facilities and equipment used. This is in line with research conducted by Wirmbi and Rohita (2019). It can be said that the school canteen is one of the places that provide food needs in schools so the existing canteen must be safe, clean, and healthy(10)

Another opinion from the supporting informants in this study said that a healthy canteen is a canteen that is free from cigarette smoke and has healthy food. Based on the narrative from the Business Management Agency (BPU) related to the Non-Smoking Area, it has been implemented at the University, but the policy regarding smoking in

the canteen area itself is returned to the respective faculties. However, in reality, in 3 out of 4 canteens at Jambi University, the majority of consumers in the canteen still smoke in the canteen area. Only the FKIP faculty canteen has a smoking ban in the canteen area. This is following research conducted by Ronitawati, et al (2020) who said that one of the requirements for a healthy canteen is to be smoke-free and not to trade cigarettes(11). This is supported by Government Regulation article 50 paragraphs 1 and 2, in Government Regulation of the Republic of Indonesia Number 109 of 2012 concerning the Safety of Materials Containing Addictive Substances in the form of Tobacco Products for Health(12).

Another factor in the establishment of a healthy canteen is the hygiene of food handlers. If the behavior of the food handler shows behavior that does not eat, it will have an impact on the food he is processing. And vice versa, healthy food handler behavior can keep processed food or drinks away from contamination, pollution, or poisoning(13). But unfortunately in reality, in the Jambi University canteen, there are still food handlers who think that using work equipment such as aprons, head coverings, gloves, and masks is not too important. 1 out of 8 who became the Main Informant in this research said so. Based on the observations made, the majority of food handlers only use aprons, masks, and head coverings such as hijabs. As for the use of gloves, the food handler said that they feel uncomfortable using gloves but instead they often wash their hands when they want to touch processed food.

Then a healthy canteen must also sell and buy safe and healthy food for its consumers. According to the informants, healthy food is the main food that is nutritionally balanced, food that does not contain preservatives such as free from *monosodium glutamate* (MSG) and flies. This is also supported by the research conducted by Nurchayati and Pusari (2015) which says that healthy food is food that has sufficient and balanced nutrition, and does not contain (polluted) elements that can harm or damage health(14).

Based on the results of observations made, most of the food and drinks sold in the canteen at Jambi University are foods that are high in oil and coconut milk and drinks that are high in sugar. Examples are nasi Padang, fried rice, geprek chicken, instant noodles, and sachet drinks. And the remaining 30% is like soup, stir-fried vegetables, fruit juices, grilled chicken, peppers, and so on. From the results of interviews conducted by researchers, indeed, supporting informants or students who often visit the canteen at this university are more interested in foods that are high in coconut oil and drink high in sugar. This is also in line with research conducted by Ratih, et al (2021) which states that among adolescents, consumption of fast food, soft drinks, and sugar is more in demand than consuming vegetables and fruit to meet the nutritional needs of their bodies(15).

Perceptions of Food Handlers' Vulnerability to the Establishment of a Healthy Canteen

Cleanliness of food equipment is also a very important requirement in the establishment of a healthy canteen program. Decree of the Minister of Health of the Republic of Indonesia Number 942/MENKES/SK/VII/2003 which states in Chapter III Article 3 paragraph 2 that equipment that has been used must be washed with clean water using soap, then dried with a clean cloth and then stored in a free place pollution(9). Unclean food utensils can affect the quality of the food and beverages that are managed. Unclean food utensils cause the growth of organisms and multiply so that they can contaminate the food that is on them.

Based on the results of in-depth interviews conducted with supporting informants. 2 of the 4 informants said that in the Jambi University cafeteria they often found food and drink utensils that were not clean, for example, spoons and plates that were still greasy or glasses that still smelled of soap. This certainly can be a vulnerability factor in the establishment of a healthy canteen at Jambi University and can be a factor causing disease at Jambi University. As

research conducted by Tumelap (2011) states that if food is placed on cutlery contaminated with bacteria or microorganisms, then the food that comes into contact with the food utensil is also contaminated. Especially if it is supported by an environment that can cause bacteria/microorganisms to grow. If the body's immune system is low, of course, this can allow the occurrence of disease transmission through food. One of the bacteria that is very dangerous to human health is *Escherichia coli*(16).

Another factor that can be a vulnerability in the establishment of a healthy canteen at Jambi University is the habit of covering processed foods with food coverings. In fact, of the 4 canteens in this university, almost all canteens have food windows. But to cover food that has been processed with food cover is still rarely found. Although it already has a food window, it is still necessary to close the processed food with a food cover, to avoid the food from landing on flies or other pests in the canteen.

The last vulnerability that can be found in the Jambi University canteen is that there are still many insects flying in the canteen dining area. 3 of the 4 existing canteens, based on observations made, there were still some flies flying in the canteen area. Where as in their activities, when visitors have finished eating the food handlers immediately rush to clean the table used to eat from these consumers. With the presence of flies flying in this canteen area, it can certainly cause cross-contamination between food if the food handlers do not maintain the cleanliness of the managed canteen. Flies are attracted to foul odors, as well as the smell of stimulating food or drink. The stench comes from garbage, both organic waste and inorganic waste whose placement is not separate. Placement of wet and dry waste that is not separated plus the absence of a lid (using an open trash can) can cause odors that attract flies and pose a risk of contamination of food.

Perception of the Benefits of Establishing a Healthy Canteen for Food Handlers

A canteen is a place that a person can use to meet their nutritional needs. Jambi University has 4 canteens that can be used by the community. Canteen of the Faculty of Medicine, Faculty of Law, Faculty of Economics and Business, and finally the Faculty of Science and Technology. Based on the results of in-depth interviews between the main and supporting informants, the informants said that some of the benefits that can be felt if the establishment of a healthy canteen program include increasing interest in healthy foods such as fruits and vegetables. Because in the interview, the supporting informants, the majority of whom were boarding children, felt that it would be very helpful if a healthy canteen could be run at Jambi University. The boarding house children with different activities make the informants not have enough time to cook their daily meals. And the only way out is by frequently ordering food through the application or eating foods that are high in carbohydrates and fat such as rice wraps and fried chicken.

This is in line with research conducted in Australia which stated that one of the school canteens in Australia included a program to increase nutritional intake in school services. Because the research argues that a healthy diet can offer great potential in improving the health of its citizens. Consuming a bad diet can lead to poor health outcomes(17). Other benefits that can be felt include being able to help one of the health programs for consumers such as diet. The researcher agrees with the statement given by the informants, with the establishment of a healthy canteen program, is certainly very helpful for consumers who have a diet program. According to the researchers, with this program, consumers who are on a diet do not need to worry about choosing the food they sell. This is also supported by research conducted on adolescents in Malaysia, in which the study said that unhealthy eating patterns influence weight gain and obesity. Teenagers' dietary behavior is likely to be strongly influenced by environmental factors.

The school food environment is often considered a target for nutrition interventions because schoolchildren consume 40% of their daily food intake at school(18)

Another benefit that can be felt when this healthy canteen is run is that the people of Jambi University do not need to worry anymore about what food handlers are selling because with this program, of course, improving the quality of food in terms of cleanliness, food ingredients, nutritional sources is guaranteed. Consumers feel more secure and don't have to feel sick. In addition, the establishment of a healthy canteen, can increase interest in eating fruits and vegetables and can help in several health programs such as helping one's diet program.

Perception of barriers to the establishment of a healthy canteen for food handlers

The problem that often arises in the establishment of a healthy canteen is that it does not comply with the sanitation requirements of the establishment of a healthy canteen. Some of these requirements include building factors, construction factors, and canteen facilities(11). Based on the observations made, the researchers found several canteens that were not following the building standards of the establishment of a healthy canteen. The first is the canteen of the faculty of science and technology. From the observations, this canteen does not yet have a solid building, the floor of the canteen is still on the ground and the roof of the canteen is still made of zinc. In addition, the place for processing and serving food in the canteen is still integrated. And in sanitation facilities, this canteen does not yet have a source of clean water and a hand washing sink with soap and hand wipes as a dryer. So for the supply of clean water in this canteen, food handlers must transport it from outside.

In the book *Towards a Healthy Canteen in Schools* (2011) one of the requirements in the building requirements for a healthy canteen is that the floor of the canteen must be waterproof, not slippery, strong, flat, and tilted so that it can be easily cleaned(19). Then at the point of food

processing and preparation, this requirement states that the food processing room must be separate from the serving room and dining room(19). But in fact, in all canteens at Jambi University, the food processing, and serving rooms are still unified and relatively narrow, especially in the canteens of the FKIP and FEB faculties. And for the purpose of sanitation facilities, there is a sink with soap and clean rags and there is an adequate supply of clean water(19). However, in reality, one of the canteens at this university, such as the canteen of the faculty of science and technology, does not yet have a source of clean water.

Another obstacle felt by the main informants was the rental fee which was not commensurate with the facilities they received. Based on the narrative of one of the informants, the rent is too expensive. Especially with the facilities obtained are still not optimal, and also now is still a transition period from the covid-19 pandemic which causes visitors who come to the canteen to not be as crowded as in the period before the pandemic. So the income obtained is also reduced which is then supported by an increase in the price of goods. However, based on interviews conducted with the Business Management Agency, the issue of rental fees has been determined through the Rector's decision. In this decision, it has been determined how much the rental fee for each canteen is.

Another obstacle that is felt by food handlers and students as canteen visitors is that some canteens often smell bad. Like the smell of stars and the smell of garbage. Based on the narrative from the main informant, it is known that in one of the canteens, namely the canteen of the Faculty of Economics and Business, there is often a foul smell. This may be due to the canteen area being surrounded by fairly high weeds. This stench is certainly very disturbing and can cause more flies in the canteen. Another statement conveyed by students as canteen visitors said that the canteen of the Faculty of Law often smelled of garbage. This can also disturb the comfort of consumers when visiting the canteen.

Perceptions of readiness of food handlers towards the establishment of a healthy canteen

Based on the results of interviews with informants and observations of the canteen environment at Jambi University, it can be said that this canteen cannot yet be dubbed a healthy canteen. From in-depth interviews conducted by researchers, food handlers also fully support and say that the plan to establish a healthy canteen is a good idea. The four food handlers who were the main informants agreed that one day Jambi University would impose a regulation regarding the food sold or the standards that must be met from the establishment of this program. but still by considering the advantages of both parties. Students as supporting informants also agreed to this. The establishment of this healthy canteen program must also be supported by all aspects, starting from the Jambi University, food handlers, or consumers who often visit the canteen. Supporting informants in in-depth interviews conducted yesterday said that it would be better if the food handlers were provided with education before starting the establishment of a healthy canteen program. So that food handlers also know more about how to manage a good canteen.

Based on the results of research from Wagustina's research at the Nutrition Installation of the Meuraxa General Hospital, Banda Aceh, The t-test analysis showed that there were differences in the behavior of food handlers before and after attending the training(20). The result of Herningtyas' research is that training using PowerPoint and poster media is proven to increase the knowledge of sanitation hygiene training participants. Some of the research results above state that training is an effective effort in increasing one's knowledge and behavior(21). The results of Arrizka's research showed a significant increase in the results of the participant's knowledge and attitude tests after receiving sanitation hygiene training(22).

Healthy Canteen Policy at Jambi University

Policies or regulations regarding standards in the establishment of a healthy canteen at Jambi University have not yet been established. It is proven by the existence of an existing work contract, only discussing the provisions of the rental fee, the rights, and obligations of the tenant such as cleanliness and the type of food sold so that it is different in each canteen. There are no specific standards regarding food sanitation or hygiene of hired food handlers.

This has also been explained in the book *Healthy High School Canteen* in the new habit era which says that a strong authority in realizing a healthy canteen can create a commitment. In addition, the rules and policies regarding the procurement of food ingredients to the control mechanism for the quality of the products sold in the canteen are very necessary so that the availability of food and drinks sold in the canteen is safe food(19)

In line with research conducted by the Australian government, making guidelines and policies on healthy canteens can help improve the quality of nutrition in schools. Because the function of these guidelines and policies is to persuade and provide advice to schools and canteen managers to provide healthy food and beverage options(17). Other studies state the same thing that executive and community support to improve better services is another significant factor. The involvement of school principals, parent committees, and canteen managers will encourage the implementation of healthy canteen policies in the long term, as well as contribute to improving the implementation of nutrition policies across school populations(23).

Therefore, it is necessary to have a work contract that contains standards in food sanitation, food handler hygiene, or building standards in the establishment of a canteen. So that the program for establishing a healthy canteen at Jambi University can be realized, thus providing good benefits for food handlers or students and lecturers who become consumers of the canteen.

CONCLUSION

From the research that has been done, it is found that the perception of food handlers towards a healthy canteen here is the same, namely, a healthy canteen is a canteen that is seen from healthy food, a clean environment and the services provided are also good. The vulnerabilities in the establishment of a healthy canteen at the University of Jambi, among others, such as the food equipment used is still not clean, processed food is not covered properly and there are still many flies found in the canteen area. In addition, if this program can be realized, it will certainly have benefits for the entire campus community, including being able to increase interest in consuming healthy food, being able to help in health programs, and reducing concerns about food that is less clean and healthy.

However, on the way to the establishment of a healthy canteen, of course, there are obstacles in it such as there are still canteens that have inadequate water sanitation, the facilities/infrastructure owned by the canteen not following predetermined standards, and there is still an unpleasant smell. So based on the research that has been done, the Jambi University Canteen can be counted in two optimal groups in terms of service and not optimal in terms of the variety of food sold, facilities/infrastructure and sanitation of food or water. Therefore, it is necessary to establish policies or rules related to healthy canteens at Jambi University so that the program can be realized properly and provide some training for food handlers related to catering or food handler hygiene.

REFERENCES

1. Apriliani IM, Purba NP, Dewanti LP, Herawati H, Faizal I. Health Promotion Strategy for Efforts to Increase Knowledge of Healthy Canteen Managers. *Citizen-Based Mar Debris Collect Train Study case Pangandaran*. 2021;2(1):56–61.
2. Bukman AJ, Teuscher D, Feskens EJM, Van Baak MA, Meershoek A, Renes RJ. Perceptions on healthy eating, physical activity, and lifestyle advice: Opportunities for adapting lifestyle interventions to individuals with low socioeconomic status. *BMC Public Health*. 2014;14(1):1–11.
3. Arif S. *Environmental Health*. Jakarta: Prenada Media Group; 2013.
4. Nildawati N, Ibrahim H, Mallapiang F, Afifah MK, Bujawati E. Application of Personal Hygiene on Food Handlers at Islamic Boarding Schools, Biring Kanaya District, Makassar City. *J Environmental Health*. 2020;10(2):68–75.
5. Lee HK, Abdul Halim H, Thong KL, Chai LC. Assessment of food safety knowledge, attitude, self-reported practices, and microbiological hand hygiene of food handlers. *Int J Environ Res Public Health*. 2017;14(1).
6. Ministry of Health of the Republic of Indonesia. *Riskesdas National Report 2018* [Internet]. Agency for Health Research and Development. 2018. p. 198. Available from: http://labdata.litbang.kemkes.go.id/images/download/laporan/RKD/2018/Laporan_Nasional_RKD2018_FINAL.pdf
7. Eri Yanuar, Gunadi et al. *Health Promoting University*. Efka Gama Media. 2018;12:1–62.
8. Nugroho AS, Kaswinarni F, Prasetyo P. Environmental Hygiene and Health Management. *J Service to the Community*. 2012;3(2).
9. Hanum SMF. *Guidebook for School Healthy Canteen Empowerment*. Guidebook for School Healthy Canteen Empowerment. 2019.
10. Wimbi P, Rizky T. An Overview of the Quality of Elementary School Canteens (Description Study in Elementary Schools in the Depok and South Tangerang Regions. 2019;10:373–83.
11. Ronitawati P, Nuzrina R, Swamilaksita PD, Sitoayu L, Melani V, Gifari N. Improving Knowledge of Food Handlers Related to Healthy Canteen Development. *JMM (Journal of Masyarakat Mandiri)*. 2020;4(1):84.
12. Indonesia PR. *Government Regulation of the Republic of Indonesia Number 109 of 2012 concerning the Safety of Materials Containing Addictive Substances in the*

- Form of Tobacco Products for Health. 2012;5(1):1–8.
13. Cahyaningsih CT, Kushadiwijaya H, Tholib A. Relationship of Sanitary Hygiene and Food Handler Behavior with Bacteriological Quality of Tableware in Food Stalls. *Berdokt Masy* [Internet]. 2009;25(December 4):180–8. Available from: <https://drive.google.com/file/d/0Bx8eC1QkvspuenZHcndaaTIFeU0/view>
 14. Nurchayati D, Pusari R. Efforts to increase knowledge of healthy food through the application of cooking centers in play group B at PAUD BAITUS SHIBYAAN, Bergas District, Semarang Regency, 2014/2015 academic year. *J PAUDIA Researcher*. 2015;1–27.
 15. Ratih D, Ruhana A, Nugrahani Astuti AB. Reasons for choosing food and the habit of consuming healthy food for Unisa Ketintang students. *J Catering*. 2022;11(1):22–32.
 16. Tumelap HJ. Bacteriological Condition of Food Equipment at Jombang Tikala Restaurant, Manado. *Jur Health Environment Ministry of Health Manad*. 2011;20–7.
 17. McPherson M, Lai CC, Leahy D, Wessell A, Srinivasan S, Hanley B, et al. Facilitators to healthy canteen policy implementation: A qualitative approach. *Heal Promote J Aust*. 2021;(February):1–8.
 18. Mohammadi S, Su TT, Jalaludin MY, Dahlui M, Azmi Mohamed MN, Papadaki A, et al. School-Based Intervention to Improve Healthy Eating Practices Among Malaysian Adolescents: A Feasibility Study Protocol. *FrontPublicHealing*. 2020;8(September):1–11.
 19. Culture of the ministry of education and. High School Healthy Canteen in the Age of New Habits. In 2020.
 20. Wagustina S. The Effect of Hygiene and Sanitation Training on Knowledge and Behavior of Food Handlers at the Nutrition Installation of Meuraxa Regional General Hospital Banda Aceh. *J Ilm STIKes U'budiyah*. 2013;2(1).
 21. Herningtyas RA. Sanitation Hygiene Training to Increase Knowledge of Coffee Shop Food Handlers in the UNESA Lidah Wetan Campus Area, Surabaya. *e-Journal of Food*. 2017;5(3):125–33.
 22. Arrizka N, Handajani S. Development of Training Tools to Improve Sanitary Hygiene of Food Handlers for Processing Shrimp Pets in Gumeng Village , Bungah Gresik District. *e-Journal of Food*. 2017;5(1):11–9.
 23. Tauhidah SA, Candi C, Bachtiar A. A Comprehensive School-Based Nutrition Intervention to Improve the Implementation of Healthy School Canteen Policy: A Systematic Review. *J Heal Policy Manager*. 2021;6(1):57–66.