

EFFECTIVENESSE BOOKLET MEDIA EDUCATION ON IMPROVING WORKER HYGIENE AND SANITATION PRACTICES HOUSEHOLD CRACKER INDUSTRY IN SILABERANTI SUB DISTRICT PALEMBANG

Zairinayati, Denny Ciptawan Wijaya, Dinda Surya Ananda

University of Muhammadiyah Ahmad Dahlan Palembang

Jl. Jend. A. Yani 13 Ulu Palembang South Sumatra 30252

E-mail: zairinayati@yahoo.co.id

Article Info

Article history:

Received July 17, 2023

Revised July 17, 2023

Accepted July 31, 2025

Keywords:

Food Home Industry

Food Safety

E-Booklet Education

Sanitation Facilities

Hygiene Practices

ABSTRACT

Effectiveness Booklet Media Education On Improving Worker Hygiene And Sanitation Practices Household Cracker Industry In Silaberanti Sub District Palembang. The existence of a food home industry is a source of business that can support people's lives so it is necessary to guarantee the safety aspects of the food products produced. The emergence of foodborne diseases is a public health problem that often occurs in the modern era. Through the provision of education with visual media e-booklets are expected to be able to increase the knowledge of working owners and employees. The purpose of this study was to find out the differences in the behavior and hygiene practices of domestic industry workers. This research method is quasi-experimental and uses a time series experiment. The components measured by sanitation facilities, knowledge and behavior of washing hands include aspects of processing facilities, water supply, food storage, cooking equipment and food containers, how to store food and prepared food, food serving, and food distribution. Frequency distribution data analysis and Paired sample T test in pairs. The results showed that the gender of the respondents was 70% female, the age of the respondents was 70% less than 44 years, the results of the different test obtained the P-value for the variable sanitation facilities before and after counseling was 0.009 and for hand washing obtained a P-value of 0.000. The conclusion is that there are differences in sanitation facilities, knowledge and practice of washing hands when working before and after counseling with e-booklets.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



INTRODUCTION

Home industries are a source of income that can support local livelihoods, including in the food industry, local crafts, and other sectors. These home industries are businesses that operate in their own homes and use manual or semi-automatic food processing equipment. One of the most important things that needs to be done in the food sector is implementing personal hygiene standards to maintain the quality of processed foods. This relates to protecting food ingredients from cross-contamination. Food is safe to consume because it is protected from damage and does not contain potentially harmful or negative ingredients. When food is prepared, personal hygiene, including washing hands before handling, maintaining cleanliness of the body, hair, nose, mouth, and hands, and maintaining health, is often neglected, leading to contamination^[1]. Advances in food quality and safety standards are prerequisites for the expansion of food SMEs. Currently, home-based food businesses

contribute approximately 49.5% of food poisoning cases in Indonesia, according to 2017 BPOM data. Besides ensuring the safety of home consumers, product quality and safety control are also crucial for the widespread distribution of the food products^[2]. To increase competition in the global era, food companies, in this case cracker SMEs, must implement a quality assurance system^[3].

Personal hygiene refers to the actions or routines a person performs to maintain cleanliness and health. Because foodborne illness is a common public health problem today, maintaining high standards of personal hygiene can impact the outcome of processed foods, including whether they are safe to eat, free from non-food ingredients, and free from spoilage^[4]. Food is a basic human need that must be met. Humans cannot survive without adequate food intake to meet their daily needs. Government Regulation No. 86 of 2019 states that food consumed must be of high quality and meet food safety criteria^[5]. The main limitation of home industry owners, namely MSMEs, is their inability to provide quality assurance to consumers for the products they produce^[6].

Food poisoning can occur from consuming hazardous foods. When disease causing germs or bacteria infect food or drink, it can cause food poisoning. Food handlers may contract foodborne infections, including Hepatitis A and other viruses, from pathogenic bacteria on their hands, wounds, lips, skin, or hair (*Salmonella typhi*, *Staphylococcus aureus*, *Shigella* species). Furthermore, food workers with digestive disorders can also transmit *E. Coli*^[7]. According to WHO (2015), food poisoning caused at least 1.5 million child deaths in 2015. Foodborne illness is estimated to cause 175,000 annual deaths in Southeast Asia (WHO, 2015). According to BPOM (2016), at least 5,673 Indonesians were affected by food poisoning in 2016, 3,351 people fell ill, and 7 people died. Even in West Java, there is still little understanding of PIRT management. Only 33.95% of MSMEs in the food industry are registered with PIRT^[8].

Food that meets standards of sanitation, hygiene, and personal cleanliness is considered safe. Food safety is one of the factors customers consider when making food choices^[9]. Islam has regulated food safety as stated by Allah in Surah Al-Baqarah verse 267 which reads "O you who believe! Spend out of the good things you have earned and out of what We have brought forth for you from the earth. Do not choose to spend what is evil, while you yourselves would not take it, except with aversion to it and know that Allah is Self-Sufficient, Praiseworthy". This verse is a clear directive regarding food quality control. The standards and quality of food products provided to customers are also governed by food safety regulations. There are two contexts of food safety from a religious perspective (halal) and safety from a health perspective (thayyib). These are two factors to consider. Religion does not always equate to safety on the other hand, health does not always equate to safety when it comes to safety.

Crackers and chips are a form of snack that is appreciated by most Indonesians. According to statistics from the Central Statistics Agency on Expenditures for Consumption of the Indonesian Population 2011, the consumption of crackers and chips in Indonesia falls into the high category in terms of public consumption in both urban and rural areas. This shows how popular these snacks are in Indonesia and how likely it is that they will become an industrial product potential. Fish crackers, shrimp crackers, onion crackers, and different kinds of fruit and vegetable chips are only a few of the wide variety of crackers and chips items available in Indonesia. Chips and crackers are processed using a variety of techniques as well. These treats are typically processed via frying and^[10]. The cracker trade is a type of industry with significant potential. Crackers are a highly sought-after commodity, but numerous errors in food processing and safety practices lead to people ingesting the crackers, which can lead to health problems.

South Sumatera Province has various types of small and medium enterprises including small and medium enterprises of crackers and kemplang, songket cloth, jumputan, pempek, rattan craftsmen, and craftsmen of Palembang's typical carvings. Besides being famous as a pempek city, this province is also famous for its typical kemplang crackers of Palembang, commodities from small and medium enterprises of kemplang crackers have spread throughout the city of

Palembang, including Seberang Ulu 2 in the Silaberanti sub-district of Palembang, there is a center for processing household-scale crackers. The results of a preliminary survey found around 7 houses that opened cracker businesses precisely in Lorong Manggis, employing 5-7 people per house. The production of these crackers is carried out every day except Sunday. Previous research has shown that sanitation hygiene training and the use of visual media can influence health-related behaviors or practices^[11]. Various food handling hygiene procedures in the university canteen were demonstrated through Good Hygiene procedures training, which took the form of a Powerpoint presentation, a video presentation on "Safer Food Business", and a demonstration of effective hand washing ($p=0.001$)^[12]. Effective health knowledge improvement is achieved through the provision of booklets (visual media) and audiovisual media; there is no difference between the groups receiving visual and audiovisual media. Providing booklets can help improve the attitudes and knowledge of mothers and breast cancer patients in preventing malnutrition in toddlers. According to reference^[13], books were chosen because of their relatively low cost. The subject can be explained in great detail and clearly, thus helping to reinforce the message conveyed. In addition, the media used in the training can be installed at each participant's workplace^[14].

MATERIALS AND RESEARCH METHODS

This research design is quasi-experimental and uses a Time Series Experiment. In this design, the groups used in the study cannot be selected randomly. This research design uses only one group, so it does not require a control group.

The population in this study was all owners and workers of cracker makers in the Silaberanti sub-district of Palembang, totaling five houses, each with two workers. The sample size was the total population of 10 people.

As for research stages as follows:

Preliminary Study

At this stage, the author conducted observations to determine the number of cracker processing businesses spread across Silaberanti Village. At this stage, the author had prepared contracts with business owners regarding the research objectives.

Measurement stage (1) Initial measurements were carried out on respondents covering aspects of knowledge, behavior and sanitation facilities such as room cleanliness and processing facilities, water supply, cleanliness of food warehouses, cooking equipment and food containers, storage methods for food ingredients and prepared food, food presentation and food distribution workers in the processing of crackers which was done twice to achieve group stability. (2) The first measurement was performed 1 time before the intervention. (3) The intervention stage was continued 7 days after the first measurement, namely on the 8th day. (4) Measurements were taken again after the intervention, namely on the 9th day. (5) Evaluation stage of the difference between the two measurement results

The data collection technique in this study uses Primary and secondary data. Primary data were obtained from research results, namely measurement values before and after intervention using e-booklets. The research data will be presented in the form of a frequency distribution of respondents and bivariate analysis using a paired T-test after first testing for data normality.

RESEARCH RESULTS AND DISCUSSION

This research was conducted in the household-scale cracker-making center in Silaberanti Village, Palembang, starting with 7 respondents from 7 houses of cracker-making business owners. Based on the results of interviews before and after providing education using e-booklets on hygiene sanitation variables and knowledge and handwashing behavior, the following results were obtained:

Table 1. Respondent Characteristics Based on Gender Group

No.	Variables N = 10	Frequency	%
1.	Gender		
	a. Man	3	30%
	b. Woman	7	70%
2.	Age		
	a. ≥ 44 years old	3	30%
	b. < 44 years	7	70%

Based on the table above, it shows that 70% of respondents are female, with the age distribution being the most below the mean value, which is less than 44 years (70%).

Table 2. Characteristics Of Respondents Based on Sanitation Facility Groups Before And After Counseling With E-Booklets

No.	Sanitation facility variables (N = 10)	Before		After	
		f	%	f	%
1.	Not Good ≥ 80%	10	100	6	60
2.	Good <80%	0	0	4	40

Based on table 2 above, it shows that sanitation facilities before the counseling using the e-booklet were 100% poor with an average value of 65.9%, and after the counseling there was a decrease in the number of sanitation conditions at cracker processing facilities to 6 which were poor (60%).

Table 3. Characteristics of Respondents Based on Knowledge And Hand Washing Groups Before and After Counseling with E-Booklets

No.	Sanitation facility variable before counseling N = 10	Before		After	
		f	%	f	%
1.	Not Good ≥ 75%	10	100	0	0
2.	Good <75%	0	0	10	100

Table 3 shows that for the knowledge and handwashing variables before the counseling, the category was not good at 100%, with an average value of 35 and after the counseling, all were in the good category with an average value of 90.

Table 4. Percentage of Sanitation Facilities Conditions at Cracker Processing Sites Based on the Assessment Components Observed

No.	Observed variables	Components are not good		Difference in Value
		Before (%)	After (%)	
1.	Location and building	61.1	25	36
2.	Production room	19.4	9	10.4
3.	Production equipment	28.6	20.4	8.2
4.	Water supply/water supply facilities	0	0	0
5.	Hygiene and sanitation activities	28.3	10	18.3
6.	Food labeling	36.3	31.5	4.8

Table 4 explains that the observed variable components of the 6 observed assessment components that most have not met the good category are the production room building components with a total of 31 items and components that have not been met include walls, ceilings, doors and ventilation. Before the counseling, the percentage of sanitation facility conditions that are most often the location and building is 61% and after the counseling there is still 1 component that must not be good, namely food labeling that does not include the net weight, production code and P-IRTP code of 36.3% before and 31.5% after

Table 5. Percentage of Knowledge and Handwashing Behavior While Working on Cracker Processing

No.	Observed variables	Before (%)	After (%)	Difference in value
1.	Appearance of food handlers when processing food	41.7	18.7	23
2.	Food handler behavior during work	41.3	17.5	24
3.	Hand washing habits	40	20	20
4.	Good hand washing practices	100	10	90

Based on table 5, it shows that the percentage of knowledge and handwashing behavior while working obtained the highest value before the counseling that was not good was the component of the appearance of the handler (41.7%) and the behavior of the handler (41.3%). The items found were the use of head coverings, not covering the mouth when cleaning or coughing, after the counseling there was a decrease in the percentage, the most of which was in the 1 item above.

Table 6. The Effect of Providing Counseling Using E-Booklets on Improving Hygiene and Sanitation Practices of Home Industry Workers in the Silaberanti Subdistrict, Palembang

Measured variables	Mean	CI	P
Sanitation facilities before e-booklet counseling – sanitation facilities after e-booklet counseling	-12,100	(-20,384) – (-3,816)	0.009
Knowledge and handwashing behavior before e-booklet counseling – Knowledge and handwashing behavior after e-booklet counseling	-55,000	(-65,162) – (-44,838)	0,000

Table 6 shows that the results of the difference test with Paired T-test by first conducting a data normality test show that the data is normally distributed. The P-value for the sanitation facility variable before and after the counseling is 0.009 < 0.05, meaning that there is a difference in the sanitation conditions of the cracker processing area after being given counseling with e-booklet media, evidenced by a decrease in the percentage in each component. Likewise, the results of the analysis of the knowledge and handwashing variables obtained P-value = 0.000, meaning that there is a difference in knowledge and handwashing practices while working before and after counseling with e-booklet.

This research, which was conducted using an e-booklet instrument on hygiene and sanitation practices in the home industry of cracker making in Silaberanti Village, found that 10 houses were involved in the cracker making business, but during the research, the researchers found 1 house in production while the other 9 were not in production. The results of the observations obtained were for sanitation facilities from the 6 components of the assessment that were observed, the most that did not meet the good category were the components of the production room building with a total of 31 items and components that had not been met included walls, ceilings, doors and ventilation. Before the counseling, the location and building contributed the largest percentage to unhealthy facility conditions (61%). After the counseling, there was still one component that needed to be improved, namely the food label that did not include net weight, production code, and P-IRTP code (36.3%) and 31.5 after the counseling. Based on the findings of previous research regarding the relationship between fly density in home industries and production rooms to the physical quality and environmental sanitation, of 45 environmental sanitation studies, 26 (57.8%) did not meet the standards^[15]. The results of the analysis of the influence of knowledge and handwashing behavior as shown in table. 6 with a P value of 0.009 means that there is a difference in the level of sanitation facility conditions before and after the delivery of counseling using e-booklet media. This study supports previous research that found significant changes in the hygiene behavior of food handlers in hotels after personal hygiene counseling (p = 0.014). In addition, research on the impact of visual media on food sanitation hygiene practices on food handlers showed significant results with a p value of 0.001 and a positive and strong correlation (r = + 0.667), which indicates that the provision of visual media can improve personal hygiene practices of food handlers,^[14] If a food handler's actions and knowledge fall

into the good category, then their behavior is considered good. When both components of behavior fall into the bad category, it is considered bad. A food handler's actions and knowledge form two aspects of food handler behavior,^[16] Behavior can be influenced by environmental influences in addition to knowledge of good hygiene. This is what happened to the food stall vendors in the Malioboro area who poorly managed their food despite having adequate knowledge and access to resources^[17].

The results of the analysis of the influence of knowledge and practice of hand washing before and after counseling using e-booklet media are shown in table. 6 with a P value of 0.000 while in the variable of knowledge and practice of hand washing, it was found that the percentage of knowledge and behavior of hand washing at work obtained the highest value before counseling which was not good was the component of the appearance of the handler (41.7%) and the behavior of the handler (41.3%). The items found were the use of head coverings, not covering the mouth when cleaning or coughing, after counseling there was a decrease. The total number of germs on eating utensils was highly correlated with not using soap after using the restroom and washing hands before work. Previous research revealed that although women covered their heads and male employees had short hair, male employees did not use head coverings. Therefore, it was decided that personal hygiene practices needed to be addressed. The use of personal protective equipment, including masks, gloves, head coverings, and aprons, has increased^[1]. Even when it comes to food handlers in hospitals or food vendors in public places, compliance with the use of personal protective equipment (PPE) in Indonesia is still low, according to a number of previous studies^[18].

The results of the research observations indicate that the process of making these crackers is still carried out in an old-fashioned way, with standard equipment, and in conditions that do not meet good hygiene and sanitation standards, such as not wearing work clothes or head coverings, maintaining personal hygiene, and regularly washing hands before and after work. The results of interviews with business owners revealed that although most of them wash their hands, some still wear jewelry. As a result, these standards were not met in the researcher's evaluation of handwashing habits and hygiene and sanitation conditions. The public has the right to protection of their health and safety from food production and distribution that does not comply with regulations, therefore food quality is very important to ensure. Contemporary technological advances have led to changes in dietary patterns, which may impact advances in food production and delivery methods. The increase in foodborne diseases also impacts the economy. Previous research findings indicate that a large number of workers still lack adequate personal protective equipment (PPE), including aprons, gloves, head coverings, special clothing, and personal hygiene items such as long nails and production facilities that do not meet good sanitation and hygiene standards^[19].

Different research findings revealed that 154 respondents who sell cooked food products have access to the necessary infrastructure to support food production and sales activities; In addition, only 8.4% of respondents have a Certificate of Hygiene Sanitation for Catering Services, and only 11% of respondents have completed Hygiene Sanitation for Catering Services training. Regarding CTPS facilities, most of the 189 respondents have running water for washing hands at their business premises (94.7%)^[20].

Food hygiene and sanitation measures are crucial, especially for food producers. This is especially true given the global Covid-19 pandemic, which has had a significant impact on society and significantly changed hygiene and sanitation standards. The study, conducted with 825 food companies from 16 countries, demonstrated increased corporate awareness of food safety precautions during the pandemic^[21]. According to research conducted in Jordan, food handlers' attitudes and awareness of food safety improved during the pandemic compared to the beginning of the outbreak^[22]. A study conducted in the Philippines found that food handlers still did not follow proper food sanitation and hygiene procedures. In contrast, the handling of home-produced food included in online food sales showed a different result^[23].

Meanwhile, a study from Indonesia conducted in Jember revealed that the majority (73.8%) of respondents had poor awareness of food safety and food hygiene methods used by food vendors during the pandemic^[24]. Another similar study found that food handlers in food companies in Makassar were still lacking in food hygiene and sanitation practices ^[25]. However, some of these studies involved only a limited sample size of participants. There is still limited evidence available on food sanitation and hygiene practices described by food handlers, particularly food vendors, especially in Greater Jakarta (Jabodetabek). This means that the practices of food handlers in these studies were not entirely good, even though they had been provided with education on good food hygiene and sanitation practices.

Overall, the purpose of this study was to determine whether the hygiene and sanitation practices of workers in the cracker home industry were affected by the use of e-books combined with visual media. The findings of this study showed a statistically significant difference in respondents' responses before and after the intervention, as well as a decrease in the quantity of building materials, production space, equipment, and facilities and the percentage of components that did not meet the requirements. sanitation facility needs variables. Payments are still required for cleaning food ingredients, equipment, staff hygiene facilities such as handwashing facilities, waste handling, material storage, and finished crackers.

CONCLUSIONS AND RECOMMENDATIONS

The frequency distribution of respondents' gender is 70% female, with the most age distribution below based on the mean value being less than 44 years as much as 70%). The frequency distribution of sanitation facilities before counseling using e-booklets was 100% not good with an average value of 65.9%, and after counseling there was a decrease in the number of sanitation conditions of cracker processing sites to 6 which were not good (60%). The results of the Paired T-test obtained a P-value for the sanitation facility variable before and after counseling was $0.009 < 0.05$ meaning there was a difference in the sanitation conditions of cracker processing sites after being given counseling with e-booklet media and the knowledge and hand washing variables obtained a P-value of 0.000 meaning there was a difference in knowledge and hand washing practices while working before and after counseling with e-booklet.

REFERENCES

1. Kristiana A, Setiawati T, Patriasih R. Implementation of Personal Hygiene for Home Industry Cracker Employees in Sindang Village, Sindang District, Indramayu Regency. *Media Education, Nutrition, and Culinary*. 2020;9(1):1–6.
2. Pinandoyo DB, Masnar A. Implementation of GMP in SEMAT (Healthy and Delicious) Chips SMEs. *Gorontalo Agric Technol J*. 2019;2(2):51.
3. Karipidis P, Athanassiadis K, Aggelopoulos S, Giompliakakis E. Factors affecting the adoption of quality assurance systems in small food enterprises. *Food Control*. 2009;20(2):93–8.
4. Wulandari R, Yogha S, Patriasih R. Habituation of Personal Hygiene Behavior by Mothers to Toddlers (Aged 3-5 Years) in Derwati Village. *Media Education, Nutrition, and Culinary*. 2017;4(1):66–75.
5. No. 86 of 2019 concerning food safety. Government Regulation. 2019.
6. Muhandri T, Herawati D, Budi FS, Nuraida L, Koswara S, Agista AZ, et al. Readiness of Micro, Small, and Medium Food Enterprises in the Implementation of ISO 9001:2008 (Case Study in Palu, Central Sulawesi). *Agrokreatif J Ilm Pengabdian Masyarakat*. 2017;2(2):61.
7. Sharif L, Obaidat MM, Al-Dalalah MR. Food Hygiene Knowledge, Attitudes and Practices of the Food Handlers in the Military Hospitals. *Food Nutr Sci*. 2013;04(03):245–51.

8. Yulianti MD, Mustarichie R. Registration Procedures for Home Industry Processed Food (PIRT) and Domestic Food (MD) in the Context of Increasing Safe and Quality Products in Bandung, West Java. *Farmaka*. 2018;15(3):57–64.
9. Lestari TRP. Food Safety as an Effort to Protect the Rights of the Community as Consumers. *Aspir J Mass Sos*. 2020;11(1):57–72.
10. Jamaluddin. Processing of Various Food Crackers and Chips [Internet]. Makasar: Makasar State University; 2018. Available from: <https://www.ptonline.com/articles/how-to-get-better-mfi-results>
11. Medeiros CO, Cavalli SB, Salay E, Proença RPC. Assessment of the methodological strategies adopted by food safety training programs for food service workers: A systematic review. *Food Control* [Internet]. 2011;22(8):1136–44. Available from: <http://dx.doi.org/10.1016/j.foodcont.2011.02.008>
12. Ababio PF, Taylor KDA, Swainson M, Daramola BA. Effect of good hygiene practices intervention on food safety in senior secondary schools in Ghana. *Food Control*. 2016;60:18–24.
13. Yulianti. Booklet to Increase Knowledge of Dengue Fever Mosquito Nest Eradication (PSN) in Plumbungan Village, Karang Malang District, Sragen Regency. *Unnes J Public Heal*. 2013;2(2):1–9.
14. Atika Dina IR. The Influence of Food Hygiene and Sanitation Visual Media on Food Handlers' Hygiene Practices in Campus Canteens. *J Heal Educ*. 2018;3(2):65–74.
15. Agid Chandra RP. The Effect of Environmental Sanitation and Physical Quality of Production Space on the Number of Fly Density in the Home Industry of UD. Afalia Jaya, Kambingan Village, Tumpang District, Malang Regency. 2021.
16. Permatasari I, Handajani S, Sulandjari S, Faidah M, Info A. Food Hygiene and Sanitation Behavior Factors in Street Vendor Food Handlers. *J Tata Boga* [Internet]. 2021;10(2):223–33. Available from:
 - a. <https://ejournal.unesa.ac.id/index.php/jurnal-tata-boga/>
17. Suryani D, Dwi Astuti F. Hygiene and Sanitation of Angkringan Vendors in the Malioboro Area of Yogyakarta. *J Medicine and Health*. 2019;15(1):70.
18. Nur Y, Sari W, Abdurrachim R. The Difference Between Compliance of Personal Protection Equipment Using and Hygiene Level of Employees in the Department of Nutrition (Study in two private Hospitals in Banjarmasin, 2018). *J Food and Nutrition Research*. 2019;2(1):48–58.
19. Fajriansyah. Hygiene and Sanitation of Bread Processing at Paten Bakery Bread Factory. *AcTion Aceh Nutr J*. 2016;1(2):116.
20. Arfines PP, Zahra Z, Iswarawanti DN, Saptarini I. Food Hygiene and Sanitation Practices of Food Handlers in Food Sales at the Beginning of the Covid-19 Pandemic in Jabodetabek. *J Health Ecol*. 2022;20(3):188–203.
21. Djekic I, Nikoli A, Kne N, Witte F, Terjung N, Papageorgiou M, et al. Since January 2020 Elsevier has created a COVID-19 resource center with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource center is hosted on Elsevier Connect, the company's public news and information. 2020;(January).
22. Omar S. Hygienic Food Practice among Food Workers in Jordanian Food Factories during pandemic crisis: COVID-19: Comparative study. *Res Sq*. 2020;1–14.
23. Lemon MR. Food safety practices of food handlers at home engaged in online food businesses during COVID-19 pandemic in the Philippines. *Curr Res Food Sci* [Internet]. 2021;4(January):63–73. Available from: <https://doi.org/10.1016/j.crfs.2021.01.001>
24. Haryanti DY, Suryaningsih Y. Food Safety Knowledge of Food Sanitation Hygiene Practices in the Era of Pandemic COVID-19. *Indonesian J Heal Sci*. 2021;13(1):25–34.

25. Pratiwi DD, Muhammad Khidri Alwi, Ikhrum Hardi S. Implementation of Hygiene and Sanitation in Tofu Processing Home Industry in Bara-Baraya Village, Makassar City. Wind Public Heal J. 2021;(November):552–63.

