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Practices in Food Safety Measures Among Microbusiness During Covid-19 Pandemic in the Municipality of Daraga, Albay

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Abstract:- In the food industry, food safety is extremely important, particularly during the Covid-19 outbreak. Due to the lockdown, the majority of businesses were closed, and no one was permitted to leave their home unless they were purchasing food, medicine, and other needs. Despite the epidemic, the food industry continued to provide the public with food while facing real difficulties in putting extra health protocols and procedures into place along with food safety measures. This descriptive-quantitative research assessed the food safety practices among micro-businesses during Covid-19 pandemic in the municipality of Daraga, Albay along food preparation and cooking preparation. Survey questionnaire was used in gathering data from 31 respondents who were food handlers from different eateries and food stalls in Daraga, Albay. The 4-point likert scale and weighted mean were used in scaling and analyzing the responses of the respondents. Results showed that respondents were fully implemented the food safety practices both in food preparation (workplace, equipment, tools and utensils, comfort room, and Personal Protective Equipment also known as PPE) and cooking preparation (storing, packaging materials, and serving). Hence, it was concluded that respondents were aware and adaptable to changes due to Covid-19 pandemic.

Keywords:- *Assessment, Food Safety Practices, Micro-business, Covid-19 Pandemic, Daraga, Albay.*

I. INTRODUCTION

Food safety is very crucial in the food industry. According to Todd (2020), despite decades of government and business initiatives, the prevalence of food-borne illness is still alarmingly high in both wealthy and developing countries. Each year, contaminated food contributes to 420,000 fatalities and 600 million cases of foodborne illnesses worldwide. Children under 5 years old make up 30% of foodborne mortality victims. The World Health Organization (WHO) calculated that each year, eating unhealthy food results in the loss of 33 million healthy years worldwide. Foodborne illnesses may be avoided, and WHO is decisive in assuming global leadership in investments and coordinated action across numerous sectors to develop robust and resilient national food safety systems and give consumers the knowledge they need to make healthy food decisions. Having accurate information on the national prevalence of foodborne infections is essential given that food safety receives very little governmental attention, particularly in poor countries.

Food-borne diarrhea was revealed to be the cause of about 70% of diarrhea cases, according to Azanaw, et al., (2020) of the Department of Environmental and Occupational Health and Safety, Institute of Public Health, College of Medicine and Health Sciences, University of Gondar, Gondar, Ethiopia. Inadequate food handling procedures utilized by food handler result in contamination in 10 to 20 percent of FBD outbreaks. Human health could be in danger if major catering operations lack properly maintained food handling standards. Good personal hygiene practices and food handling guidelines are essential to prevent the spread of pathogens from food workers to consumers. Over 75% of food-borne illness outbreaks are attributed to workers in food service enterprises not using safe food handling practices. Food handlers are essential in making sure that all steps of the process are carried out in accordance with food safety regulations.

In the Baier et al. (2020) study, and Mohammadi-Nasrabadi, et.al., (2021), Covid-19 is found in saliva. As a result, those who handle food may spread the virus when they speak, breathe, sneeze, cough, or sing. When viruses are present, all these actions have the potential to produce an infectious aerosol that is discharged into the surrounding air. It is believed that exhaled air from the mouth and nose can mix with air in the breathing zone of others standing close by, including restaurant patrons and personnel. By coming into contact with bodily fluids from infected people or surfaces that have been exposed to their coughing or sneezing particles, the virus can be transmitted directly or indirectly.

As a result, food workers must pay close attention to hygiene issues, including hand cleanliness and mask use. It is also critical to keep a close eye on the health of those who work with food and to keep track of any problems. COVID-19 outbreaks can be triggered or spread by any level of mishandling. Food handlers must be adequately trained in order to improve food safety and share the long-term benefits with the food industry. The prevalence of dangers from consuming tainted foods can be reduced with on-going practical training. To reduce the risk of foodborne illness, proper health, and food safety training is required. Currently, with the emergence of the COVID-19, the food industry is struggling to organize itself and strives to protect the health of both food producers and food consumers because it is impossible to work long distances in this industry, and employees are forced to return to their previous work environment (World Health Organization, 2020).

Food safety is now at an all-time high, especially in terms of public health hazards and safeguarding customers from food poisoning, allergic responses, and other health risks associated with consuming contaminated foods. Individuals tend to operate street food companies or micro businesses because of the worldwide surge in unemployed people due to Covid -19 and poverty. It is a characteristic food culture, and because of the low cost of street food, it is freely available to anyone.

At the same time, individuals are forced to rely on foods from outside due to their current hectic lifestyle, as they are too busy to spend time at home preparing meals. The food items found outside, or what referred to as "street food," provide a dietary option. Many consumers benefit from it, as do low-income business owners, but they are unaware that some sellers do not follow adequate sanitation standards, particularly now that Covid -19 virus is a concern.

The impact of COVID-19 pandemic in the Philippines' food security used a supply-chain approach. The National Capital Region (NCR) (also known as Metro Manila) is the focus, as it is acknowledged to have incurred both the greatest health impact from COVID-19 and critical supply-chain disruption in terms of food demand and consumption. The assessment explores four key food commodity chains, the impact of the pandemic on the production, distribution and demand for those commodities and the interaction of COVID-19 with other external shocks and pre-existing sensitivities.

This study assessed the food safety practices among micro-businesses during Covid-19 pandemic in the municipality of Daraga, Albay along food preparation and cooking preparation.

II. MATERIALS AND METHODS

Kimball, et al., (2020), stated that all the food industry organizations should strictly follow the protocols of Food Safety Management Systems (FSMS) given by authorities based on HACCP principles and should be kept updated in response to new pieces of evidence for viruses when required. In food companies where HACCP protocols are not being implemented, an expert should be appointed who will remain in contact with the public health authorities to seek advice during the pandemic situation. Hand washing stations should be maintained for the workforce with the provision of normal soap, warm running water, hand sanitizers, and posters designed for displaying information regarding effective hand washing and sanitization. The physical distancing of 6 feet should be implemented among workers as infected people may remain asymptomatic or pre-symptomatic during the course of the disease and may spread the infection when close to others. The introduction of staggered workstations is an effective method to overcome the challenge of physical distancing in food industry facilities.

Descriptive-quantitative research was utilized in this study. The survey questionnaire was used in gathering data from 31 respondents who were food handlers from different eateries and food stalls in Daraga, Albay. The 4-point likert scale and weighted mean were used in scaling and analyzing the responses of the respondents.

III. RESULT AND DISCUSSION

For food preparation, there were four variables that the researcher considered such as workplace, equipment, tools and utensils, comfort room, and Personal Protective Equipment (PPE). Workplace got an average weighted mean of 3.94 which means that respondents were comfortable in the workplace because it was fully ventilated, satisfied in their workplace, conduct sanitation before the operation, conduct a weekly or monthly inspection and provided signage's for safety procedures, and apply the occupational health and safety were fully implemented. The study of Nagappan & Deenadhayalan (2019), stated that food industry occupational safety and health (OSH) issues were not viewed as a major issue in the same way that other industries, such as manufacturing, transportation, mining, and construction, were. According to statistics from many nations, food-related OSH issues have gotten less attention than other manufacturing-related issues. The evaluation of workplace dangers was a critical responsibility in determining the causes of accidents. This could lead to a solution to the hazards and the establishment of a safe working environment for employees. In both developed and emerging countries, the workplace had undergone reorganization, restructuring, and a high level of mechanization.

For equipment, it has an average weighted mean of 3.96 which means they sanitize all the equipment before use, inspect the gas tube for leak and replace immediately in case of damage, check the equipment each in every and after use, set all the equipment properly and organized were fully implemented. According to Wright (2018) along with sanitation, allergen control, food traceability and the like, equipment maintenance is a critical factor in safe food product production. As a part of Current Good Manufacturing Practices (CGMPs), the U.S. Equipment maintenance is one of the risk-based preventative controls that food makers must follow, according to the Food and

Drug Administration (FDA). The GMP Prerequisite Program needed by the United States included equipment maintenance and calibration as a function of CGMPs. Department of Agriculture for any Hazard Analysis and Critical Control Points system.

For tools and utensils, it gained 3.97 average weighted mean which means they wash and soak in hot water the utensils and tools, store it in the right place, lubricate it when needed, and separate and eliminate tools and utensils with damage to avoid accidents were fully implemented. Santos et al. (2018) supported the findings that a hygienic-sanitary profile of an institutional Food and Nutrition Unit (FNU), by assessing the use of Good Manufacturing Practices (GMPs) before and after the implementation of food Quality Management Tools. In order to accomplish that, the authors employed a checklist to conduct a descriptive research on the hygienic-sanitary conditions of the FNU, and to assert whether the GMPs are efficient or not.

For comfort room, it has 3.84 average weighted mean which means they have a well cleaned comfort room for the customers, has enough supply of germicidal soap and hand sanitizer, have a separate comfort room for male and female, and has a sufficient water and tissue for use were fully implemented. It was supported by the study of Liu, et al (2018) on the consumers' perception on restaurants' food safety. More specifically, the first objective was to identify the importance and performance of casual dining restaurant selection factors from the aspect of food safety in the U.S., using the IPA model. The second objective was to assess the relationships between three cleanliness clues and overall satisfaction and their effects on behavioral intention. The employees kept their fingernails clean, wore clean uniform or protective clothing, and gloves while handling ready-to-eat food items were captured in the "concentration" quadrant, indicating they were very important to the respondents but the restaurants' performances were not satisfactory. Three cleanliness clues directly influenced overall satisfaction towards a restaurant and customer's revisit intention.

For Personal Protective Equipment (PPE), it gained 3.98 average weighted mean which means that they use hairnet to avoid hair fall on the foods, wear appropriate PPE to avoid accidents or any damaged and maintain the smooth operation, and sanitized before and after use were fully implemented. According to Farcas, et al. (2021), maintaining a stable food security system and adopting the correct tactics in matching customer wants and expectations with food safety were two of the most difficult problems in managing the food industry during a pandemic crisis and sustaining a robust food security system and adopting the right strategies in correlating the consumers' needs and requirements with those of food safety.

For cooking preparation, there were three variables used in this study such as storing, packaging materials, and serving. For storing, it has 3.96 average weighted mean which means that respondents applied proper separation of the different types of ingredients, monitor the expiration date of all ingredients and observe first-in, first-out (FIFO), keep the excess ingredients sealed well to ensure its freshness, and ensure that they sanitize all storages were fully implemented. The findings was supported by the study of Kovtoun (2021) that the restaurant sector was rapidly evolving, particularly during the pandemic, when take-out seemed to be the only method for restaurants to sell food, and customers were more worried about the environment and how take-away packaging affected it. Many restaurants are currently attempting to replace plastic containers with more environmentally friendly packaging in order to attract more consumers.

IV. CONCLUSION

This study concluded that respondents fully implemented food safety practices both in food preparation and cooking preparation. They were also aware and adaptable to changes due to Covid-19 pandemic.

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