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LEVELS OF AWARENESS, UNDERSTANDING, AND ATTITUDES OF COOKED AND PREPARED FOOD STALL OWNERS ON FOOD SAFETY AND SANITATION PRACTICES IN CENTRO ORMOC FOOD PARK

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Abstract

This descriptive-quantitative study assessed the levels of awareness, understanding, and attitudes of cooked and prepared food stall owners toward food safety and sanitation practices at the Centro Ormoc Food Park, Ormoc City, Philippines. A standardized six-part, 5-point Likert-scale questionnaire (60 items; 10 items per construct) covering awareness of food safety, understanding of food safety practices, attitudes toward food safety, sanitation and personal hygiene practices, regulatory awareness and compliance, and food handling and storage practices was administered to all 50 vendors who sold cooked and prepared food within the food park. Data were analyzed using frequency counts, percentages, and weighted means. Vendors were predominantly young adults 18–24 years old (46.0%) and male (67.0%), selling rice meals (30%), cooked viands (28%), grilled items (24%), and ready-to-eat snacks (18%). All six constructs were rated in the Agree-to-Strongly-Agree range, with food handling and storage practices (M = 4.84) and regulatory compliance (M = 4.81) rated highest, and attitudes toward food safety (M = 4.19) rated lowest. The results indicate that vendors possess strong knowledge of, and largely comply with, food safety and sanitation requirements, but show comparatively less confidence and enthusiasm regarding the practices themselves. Continuous, low-cost, community-based training and

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monitoring are recommended to narrow this awareness–attitude gap and sustain safe food-handling behavior in community food-park settings.

Keywords: *food safety, sanitation practices, awareness, understanding, attitudes, food stall vendors, food park*

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Introduction

Food safety is a persistent public-health concern in the Philippines, where a large share of the population eats outside the home on a regular basis, and street-side or open-air food stalls are ubiquitous. Government agencies maintain standards for food businesses to promote proper handling and sanitation, yet cases of foodborne illness linked to ostensibly safe food continue to occur, indicating that formal standards do not always translate into consistent practice on the ground.

Food stalls and small vendors are especially common in markets and food parks across Leyte province, where affordability and accessibility make them a preferred option for both residents and visitors. However, limited resources, crowded working conditions, and gaps in knowledge can make it difficult for these establishments to consistently meet food safety standards. Centro Ormoc Food Park, located in the center of Ormoc City, is one such venue: a large, open, community-style food park where numerous independently operated stalls serve a wide range of Filipino dishes to hundreds of customers daily. The high volume of foot traffic and the close proximity of many independent vendors make sanitary practice at the individual stall level directly consequential for public health, yet little prior research has examined whether food stalls in this specific setting actually adhere to proper hygiene practices.

Maintaining food safety in a busy, open-air food park presents practical challenges: ingredients must be fresh and properly stored, cooking must follow safe methods, and preparation must occur in a clean environment, all within constraints of limited space, water access, and refrigeration. Where these infrastructural needs are unmet, food contamination and foodborne illness become more likely, with consequences for both consumer health and vendor livelihoods. This study sought to assess vendors' own awareness, understanding, and attitudes regarding food safety and sanitation, with the broader aim of informing interventions that could position Ormoc City's food parks as a model for safer community food environments elsewhere in Leyte and the country.

Statement of the Problem

Centro Ormoc Food Park has become a popular destination for diverse, affordable food options, but the resulting concentration of visitors raises concerns about food safety and cleanliness, particularly where individual vendors may not be fully following existing local and national regulations. This study addressed the following objectives:

1. Describe the demographic profile of food stall vendors at Centro Ormoc Food Park in terms of age and type of food sold.
2. Determine vendors' level of understanding of basic food safety practices, including proper handling, preparation, and contamination prevention.
3. Determine vendors' attitudes toward maintaining food safety while preparing and selling cooked and prepared food.
4. Determine vendors' level of awareness of sanitation practices related to cleanliness, personal hygiene, and maintaining a safe food environment.
5. Determine the extent to which vendors comply with existing food safety regulations and guidelines for food businesses.
6. Identify the sanitation practices vendors follow in storing raw and cooked food to prevent spoilage and contamination.
7. Propose food safety programs or interventions based on the study's findings.

Significance of the Study

The findings of this study are intended to benefit the following groups:

Food stall owners. gain reinforced knowledge of proper food handling and sanitation practices.

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Consumers. benefit from safer, more hygienic food options and greater confidence when purchasing food at the food park.

Food handlers. improve skills and regulatory compliance to support safer food preparation and handling.

Local government units. use the findings to strengthen community health standards and regulatory enforcement.

Researchers and future researchers. gain a completed academic requirement and a reference point for related studies in this field.

Scope and Limitations

The study was limited to the 50 owners/operators of cooked and prepared food stalls operating within the premises of Centro Ormoc Food Park, Ormoc City. It relied on self-reported responses to a structured Likert-scale questionnaire rather than direct observation, laboratory testing, or inspection records, and its descriptive design does not support causal or comparative statistical claims.

Definition of Terms

Food Park: A venue housing multiple independent food stalls; the setting was examined for food safety and cleanliness practices in this study.

Food safety: The set of rules and practices that ensure food is safe to eat; the study examined the extent to which stallholders understand and follow these.

Sanitation practice: Steps taken by stallholders to keep their food-preparation areas clean; the study assessed how consistently these steps are followed.

Stallholder/vendor: The individual operating a food stall; the primary respondent and unit of analysis in this study.

Review of Related Literature

Existing research on food handler knowledge, attitudes, and practices consistently identifies gaps with direct public health implications. Bas, Ersun, and Kıvanç examined the food hygiene knowledge of Turkish food handlers and found substantial gaps in essential hygiene practices, particularly personal hygiene, with implications for contamination risk and the need for targeted training.

Framing the issue more broadly, Fung, Wang, and Menon (2020) describe food safety as a basic human right, noting that unsafe food practices place large numbers of people worldwide at risk of serious illness and underscoring the need for enforceable regulation and consistent monitoring — a framing directly relevant to a setting like Centro Ormoc Food Park, where consumer health depends substantially on the level of regulatory oversight and enforcement vendors are subject to.

Other studies on food-service sanitation have similarly identified poor personal hygiene among food handlers as a primary driver of foodborne illness, arguing that improving handlers' knowledge base is critical to reducing risk. Cross-contamination — for example, a handler failing to wash hands after using the toilet or after handling raw ingredients — was highlighted as a key mechanism by which otherwise safe food becomes contaminated, reinforcing the value of targeted hygiene training for vendor populations such as the one examined here.

Training has also been shown to produce visible behavior change among street food vendors: hand-washing training delivered to vendors at street food centers has been linked to significantly improved compliance,

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suggesting that similar structured training could be beneficial for vendors at Centro Ormoc Food Park, who would likely require comparable education in hygiene practices.

Infrastructure limitations are a recurring theme in this literature. Several studies note that many food-service establishments lack basic facilities such as clean water and adequate storage, producing unhygienic conditions regardless of handlers' knowledge; inadequate refrigeration in particular has been linked to unsafe storage temperatures for perishable food. Bridging such infrastructure gaps — reliable clean water and adequate refrigeration — is repeatedly identified as a precondition for sustaining safe handling practices, a consideration directly applicable to an open-air venue such as Centro Ormoc Food Park.

Studies of institutional food-service settings, such as university canteens, similarly attribute the spread of foodborne disease largely to knowledge gaps in food handling, and argue for educational interventions to strengthen both theoretical knowledge and practical skill — a rationale that extends naturally to community food-park settings such as Centro Ormoc.

In the Philippine context specifically, a sanitation study among street vendors in Negros Oriental found generally poor hygiene conditions and concluded that public health is threatened where hygiene principles are not systematically implemented for street vendors operating with limited resources and uncertain access to clean water and waste removal — circumstances that closely parallel those facing individual stallholders at Centro Ormoc Food Park.

A training program targeting food-business owners and graduates in a Philippine university setting was evaluated for its effect on food safety standards, with results suggesting that structured education programs meaningfully raise safety standards among participating food businesses — supporting the case for bringing similar structured training to Centro Ormoc Food Park's vendor community.

Broader, people-centered approaches to sustaining water, food, and environmental sanitation in the Philippines have also identified water scarcity and inadequate sanitation infrastructure as recurring national-level challenges with direct public-health consequences — considerations relevant to ensuring Centro Ormoc Food Park has reliable access to clean water and functioning waste-disposal systems.

Finally, a study evaluating adherence to sanitation standard operating procedures among street vendors in Dipolog City, Philippines, found that a majority of vendors were not in compliance, largely reflecting minimal prior sanitation education — a finding that supports the case for the kind of uniform inspection and training program this study also recommends for Centro Ormoc Food Park.

Theoretical Framework

This study drew on two complementary theoretical perspectives. The first, a three-party game model, examines the interactions among consumers, government regulators, and food businesses, and argues that cooperation among all three parties — rather than reliance on any single actor — is necessary to achieve higher standards of food safety. Applied here, the model frames vendor practice at Centro Ormoc Food Park as shaped jointly by customer expectations for clean, safe food and by the legal and regulatory requirements imposed by government authorities, with meaningful improvement in food safety outcomes requiring alignment among all three.

The second framework, Protection Motivation Theory (PMT; Rogers, 1975), holds that individuals are motivated to adopt protective behavior based on their perception of risk and their belief that a given precaution will effectively reduce that risk. Applied to this study, PMT suggests that vendors are more likely to consistently follow food safety and sanitation practices when they perceive a meaningful risk of foodborne illness and believe that specific protective measures — handwashing, proper storage, use of protective attire — will substantially

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reduce that risk. This framework is used in the Discussion to help interpret the gap observed between vendors' generally strong awareness and knowledge and their comparatively more modest attitudinal confidence.

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Methods

Research Design

This study used a quantitative descriptive research design. A structured survey questionnaire served as the primary data-collection instrument, enabling the researchers to quantify vendors' self-reported awareness, understanding, and attitudes regarding food safety and sanitation practices, and to derive practical recommendations to improve food handling and sanitation among food stall vendors.

Research Environment

The study was conducted at Centro Ormoc Food Park, an open, community-style food park in Ormoc City, Leyte, where independently operated stalls serve a wide range of Filipino dishes — grilled meats and seafood, snacks, rice meals, and beverages — in a casual, high-traffic setting. With many independent vendors operating side by side, the venue reflects a natural mix of food-preparation styles and sanitation practices.

Research Respondents and Sampling

The study population consisted of all 50 vendors operating cooked and prepared food stalls within Centro Ormoc Food Park at the time of data collection — the total number of stalls meeting this inclusion criterion. As all qualified vendors were included, the study effectively surveyed the full population of cooked/prepared-food stallholders in the venue rather than a sample drawn from a larger pool.

Research Instrument

Data were collected using six standardized questionnaires, each containing 10 statements (60 items total), covering: (1) awareness of food safety, (2) understanding of food safety practices, (3) attitudes toward food safety, (4) sanitation and personal hygiene practices, (5) regulatory awareness and compliance, and (6) food handling and storage practices. All items used a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

Data Gathering Procedure

The six questionnaires were administered face-to-face to all 50 respondents by the researchers on-site at Centro Ormoc Food Park. The face-to-face format allowed researchers to clarify questions in real time, which was intended to reduce misunderstanding, encourage honest responses, and improve overall response quality.

Data Analysis

Responses were analyzed using descriptive statistics. For each item, the researchers computed the frequency and percentage of respondents in each Likert-scale category (Strongly Agree through Strongly Disagree) and the weighted mean, which was used to assign a corresponding qualitative interpretation (Agree, Strongly Agree, etc.) to each item and to each construct as a whole. Construct-level and item-level results were then compared descriptively against the objectives of the study to identify patterns, relative strengths, and areas warranting further attention.

Ethical Considerations

The study was guided by the principles of respect for persons, beneficence, justice, and transparency. Prior to data collection, informed consent was obtained in writing from all respondents, who were briefed on the purpose of the study, the voluntary nature of participation, and their right to withdraw at any time without penalty. No personally identifying information was collected in the reported data; responses were treated as confidential and reported only in de-identified, aggregate form. Access to vendors for data collection was authorized by the relevant

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local office (the Public Market Office, Ormoc City). The researchers judged the study to present no more than minimal risk to participants, given that data collection involved only completion of a written questionnaire, and identified the primary anticipated benefit as informing food safety improvements that could serve both vendors and the broader public. Copies of the completed study were made available to the school library and the Institutional Review Board to support transparency and dissemination.

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Results

This section presents the demographic profile of the 50 vendor-respondents, followed by their levels of awareness, understanding, attitudes, sanitation and hygiene practice, regulatory compliance, and food handling/storage practice, each summarized using frequency, percentage, and weighted-mean statistics.

Demographic Profile of Respondents

Table 1. ***Demographic Profile of the Respondents (n = 50)***

Profile	Category	Frequency	Percentage
Age	18–24 years old	23	46.0%
	25–34 years old	14	28.0%
	35–44 years old	6	12.0%
	45 years old and above	7	14.0%
Gender	Male	33	67.0%
	Female	17	33.0%

The majority of respondents (46.0%) were aged 18–24, followed by those aged 25–34 (28.0%), indicating that the vendor population at Centro Ormoc Food Park skews toward young adults. Most respondents were male (67.0%), with female vendors comprising 33.0% of the sample.

Table 2. ***Distribution of Respondents by Type of Food Sold (n = 50)***

Food Category	Frequency	Percentage
Rice Meals	15	30%
Grilled Items	12	24%
Cooked Viands	14	28%
Ready-to-Eat Snacks	9	18%
Total	50	100%

Vendors in the 18–24 age group accounted for the largest share across most food categories, particularly grilled items and ready-to-eat snacks, while vendors aged 45 and above were most concentrated in cooked viands — consistent with older vendors favoring more traditional, home-style dishes and younger vendors gravitating toward snack- and grill-type offerings.

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Summary of Construct-Level Results

Table 3. ***Summary of Overall Weighted Means Across the Six Constructs***

Construct	Overall Mean	Interpretation
Awareness of Food Safety	4.25	Strongly Agree
Understanding of Food Safety Practices	4.28	Strongly Agree
Attitudes Toward Food Safety	4.19	Agree
Sanitation and Personal Hygiene Practices	4.68	Strongly Agree
Regulatory Awareness and Compliance	4.81	Strongly Agree
Food Handling and Storage Practices	4.84	Strongly Agree

All six constructs fell within the Agree-to-Strongly-Agree range. Practice-oriented constructs — food handling and storage (4.84), regulatory compliance (4.81), and hygiene practice (4.68) — scored highest, while attitudes toward food safety (4.19) scored lowest, the only construct in the Agree (rather than Strongly Agree) range overall. Detailed item-level results for each construct follow.

Awareness of Food Safety

Table 4. ***Levels of Awareness of Food Safety Among Food Stall Owners***

#	Statement	Weighted Mean	Interpretation
1	I am aware that food can transmit diseases if not handled properly.	4.56	Strongly Agree
2	I know that washing hands with soap before food preparation prevents contamination.	3.96	Agree
3	I am aware that cooked food should not be mixed with raw food.	4.14	Agree
4	I know that unsafe water can contaminate food.	4.60	Strongly Agree
5	I understand that storing food at unsafe temperatures can cause foodborne illness.	4.28	Strongly Agree
6	I know the importance of keeping food preparation surfaces clean.	4.44	Strongly Agree
7	I am aware of the risks of preparing food while sick.	4.40	Strongly Agree
8	I know that pests (flies, rats, cockroaches) can contaminate food.	3.46	Agree

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#	Statement	Weighted Mean	Interpretation
9	I am aware that reheating food at the proper temperature kills harmful bacteria.	4.42	Strongly Agree
10	I know that food safety is part of government health and sanitation regulations.	4.24	Strongly Agree

Overall Weighted Mean = 4.25 Interpretation: Strongly Agree

Respondents demonstrated strong awareness of food safety, with an overall weighted mean of 4.25 (Strongly Agree). The highest-rated items concerned the risks of unsafe water (4.60) and the general understanding that improperly handled food can transmit disease (4.56). Handwashing with soap (3.96), avoidance of raw–cooked food mixing (4.14), and awareness of pest-related contamination (3.46) received comparatively lower, though still positive, ratings, suggesting these are priority areas for continuing reinforcement.

Understanding of Food Safety Practices

Table 5. ***Levels of Understanding of Food Safety Practices***

#	Statement	Weighted Mean	Interpretation
1	I understand why handwashing should be done regularly during food handling.	4.40	Strongly Agree
2	I understand the importance of wearing proper attire (apron, hairnet, gloves) when preparing food.	4.18	Agree
3	I understand why cooked food must be stored separately from raw ingredients.	4.14	Agree
4	I understand why food should be covered to avoid contamination.	4.14	Agree
5	I understand the importance of cooking food thoroughly to destroy bacteria.	4.06	Agree
6	I understand why utensils and chopping boards must be washed after handling raw meat.	4.28	Strongly Agree
7	I understand the need to use clean water and ice for food preparation.	4.40	Strongly Agree
8	I understand why spoiled food must not be served even if reheated.	4.36	Strongly Agree
9	I understand that regular cleaning of stalls helps prevent foodborne diseases.	4.48	Strongly Agree

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#	Statement	Weighted Mean	Interpretation
10	I understand that food safety practices protect both customers and my business.	4.40	Strongly Agree

Overall Weighted Mean = 4.28 Interpretation: Strongly Agree

Understanding was strongest for the rationale behind regular stall cleaning (4.48), consistent handwashing (4.40), the use of clean water and ice (4.40), and not re-serving spoiled food (4.36). Comparatively lower ratings — though still within the Agree range (4.06–4.18) — were recorded for wearing proper attire, separating raw from cooked food, covering food, and thorough cooking, indicating these as focal points for future training content.

Attitudes Toward Food Safety

Table 6. ***Attitudes of Food Stall Owners Toward Food Safety***

#	Statement	Weighted Mean	Interpretation
1	I believe that food safety is as important as the taste of food.	3.82	Agree
2	I believe that practicing food hygiene prevents loss of customers.	4.00	Agree
3	I feel confident in my ability to follow proper sanitation practices.	3.98	Agree
4	I believe that food handlers should be regularly trained in food safety.	3.98	Agree
5	I believe that personal cleanliness affects the safety of food served.	3.98	Agree
6	I believe that government inspections are necessary to ensure safe food.	4.46	Strongly Agree
7	I believe that food safety is the responsibility of every food handler.	4.56	Strongly Agree
8	I believe that foodborne illness can damage a food business's reputation.	4.54	Strongly Agree
9	I am willing to improve my practices if I learn new food safety methods.	4.32	Strongly Agree
10	I believe that following sanitation guidelines is worth the effort.	4.28	Strongly Agree

Overall Weighted Mean = 4.19 Interpretation: Agree

Attitudes were generally positive, with the strongest endorsement given to personal responsibility for food safety (4.56), the value of government inspection (4.46), and concern for business reputation (4.54). Willingness to improve (4.32) and to follow guidelines (4.28) were likewise strongly affirmed. However, self-confidence in sanitation practice, perceived importance of training, and beliefs about personal cleanliness clustered lower (3.98–4.00), and this construct produced the lowest overall mean (4.19) of the six, pointing to attitude — rather than awareness or knowledge — as the comparatively weaker dimension.

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Sanitation and Personal Hygiene Practices

Table 7. ***Self-Reported Sanitation and Personal Hygiene Practices***

#	Statement	Weighted Mean	Interpretation
1	I wash my hands before preparing food.	4.54	Strongly Agree
2	I wash my hands after using the toilet.	4.66	Strongly Agree
3	I keep my fingernails short and clean while handling food.	4.90	Strongly Agree
4	I wear clean clothes or apron when preparing food.	4.88	Strongly Agree
5	I keep my stall and surroundings clean every day.	4.46	Strongly Agree
6	I use clean utensils for serving food.	4.56	Strongly Agree
7	I dispose of food waste properly.	4.66	Strongly Agree
8	I clean food preparation surfaces regularly.	4.90	Strongly Agree
9	I cover food to protect it from flies and dust.	4.56	Strongly Agree
10	I avoid handling money and food at the same time without washing my hands.	4.72	Strongly Agree

Overall Weighted Mean = 4.68 Interpretation: Strongly Agree

Self-reported hygiene and sanitation practice was the second-highest-rated construct overall (M = 4.68), led by short, clean fingernails (4.90), clean food-preparation surfaces (4.90), and clean attire (4.88). Every item in this set scored within the Strongly Agree range (≥4.46), indicating consistently high self-reported compliance with basic personal-hygiene routines.

Regulatory Awareness and Compliance

Table 8. ***Regulatory Awareness and Compliance***

#	Statement	Weighted Mean	Interpretation
1	I am aware of the food safety regulations required by the government.	4.56	Strongly Agree
2	I keep updated with sanitation guidelines from local authorities.	4.80	Strongly Agree
3	I know that food stalls are subject to sanitary inspections.	4.84	Strongly Agree

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#	Statement	Weighted Mean	Interpretation
4	I understand that a sanitary permit is required to operate a food stall.	4.78	Strongly Agree
5	I believe that complying with food safety regulations improves business trust.	4.72	Strongly Agree
6	I am aware of penalties for not following food safety rules.	4.90	Strongly Agree
7	I regularly check my compliance with sanitation requirements.	4.84	Strongly Agree
8	I believe training from health offices is important.	4.78	Strongly Agree
9	I keep health records such as medical certificates when required.	4.88	Strongly Agree
10	I follow rules on waste management set by the city.	4.96	Strongly Agree

Overall Weighted Mean = 4.81 Interpretation: Strongly Agree

Regulatory awareness and compliance received the second-highest mean among the six constructs (M = 4.81). Vendors most strongly affirmed compliance with city waste-management rules (4.96), awareness of penalties for non-compliance (4.90), and maintenance of required health records (4.88). All ten items scored ≥4.56, suggesting that formal regulatory requirements are well internalized by this vendor population.

Food Handling and Storage Practices

Table 9. ***Food Handling and Storage Practices***

#	Statement	Weighted Mean	Interpretation
1	I separate raw food from cooked food during storage.	4.78	Strongly Agree
2	I thaw frozen food safely (not at room temperature for long hours).	4.80	Strongly Agree
3	I check food for spoilage before selling.	4.84	Strongly Agree
4	I keep hot food hot until it is served.	4.78	Strongly Agree
5	I keep cold food cold until it is served.	4.72	Strongly Agree
6	I avoid using expired ingredients.	4.96	Strongly Agree
7	I store food in clean, covered containers.	4.92	Strongly Agree

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#	Statement	Weighted Mean	Interpretation
8	I avoid reusing leftover food the next day.	4.78	Strongly Agree
9	I use clean water for cooking and washing.	4.92	Strongly Agree
10	I properly dispose of spoiled or unsafe food.	4.92	Strongly Agree

Overall Weighted Mean = 4.84 Interpretation: Strongly Agree

Food handling and storage produced the highest overall mean of the six constructs (M = 4.84). Vendors most strongly affirmed avoiding expired ingredients (4.96), using clean water (4.92), proper disposal of unsafe food (4.92), and storing food in clean, covered containers (4.92). All items scored ≥4.72, indicating consistently high self-reported day-to-day compliance with core storage and handling precautions.

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Discussion

Taken together, the six constructs describe a vendor population at Centro Ormoc Food Park that is knowledgeable about food safety fundamentals, largely compliant with formal regulatory requirements, and consistent in reported day-to-day hygiene and storage behavior, but comparatively less confident and enthusiastic when the same content is framed in attitudinal terms. This pattern echoes prior findings that knowledge and even reported behavior do not always translate directly into strong self-efficacy or motivation, and is consistent with the Protection Motivation Theory framework this study draws on: vendors' relatively strong sense of risk (reflected in their high awareness scores) has translated into strong reported protective behavior (hygiene and storage practice), but their confidence in their own ability to sustain that behavior, and their enthusiasm for further training, lag behind.

The specific weak points identified within the Awareness and Understanding constructs — hand hygiene, pest-related contamination, proper attire, and separation of raw and cooked food — align closely with hazards repeatedly flagged in the literature on food handler knowledge and practice, particularly around personal hygiene and cross-contamination as primary drivers of foodborne illness. This convergence suggests that targeted refresher content on these specific points, rather than broad general training, may be the more efficient use of limited training resources at the food park.

The comparatively strong performance on Regulatory Awareness and Compliance (M = 4.81) and Food Handling and Storage (M = 4.84) is a notable finding relative to prior Philippine studies of street and market vendors, which have generally reported weaker compliance with sanitation standard operating procedures and formal regulatory requirements. This may reflect the more formalized, centrally managed nature of a food park (with a single site management and shared facilities) compared to dispersed street-vendor settings, though this study's descriptive design cannot establish this as a causal explanation.

Interpreted through the three-party game model, these results suggest that Centro Ormoc Food Park vendors are, on balance, aligning their practices with both customer expectations and regulatory requirements — the two external pressures the model identifies as necessary for improved food safety outcomes. The comparatively weaker Attitudes construct, however, indicates that the third element the model emphasizes — vendors' own internalized commitment, independent of external pressure — may be the least developed of the three, again pointing toward attitude-focused, confidence-building elements as a useful addition to any planned training intervention.

Limitations

This study relied entirely on self-reported data collected through a structured questionnaire; no direct observation, inspection, or microbiological testing was used to independently verify vendors' reported practices, so responses may be subject to social desirability bias. The descriptive design and reliance on frequency, percentage, and weighted-mean statistics preclude any causal or comparative inference (e.g., whether age, gender, or food category is statistically associated with any construct); no inferential statistical tests were reported in the source study. The sample was limited to a single food park in Ormoc City, which limits generalizability to other food-park or street-vendor settings without further study.

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Conclusion and Recommendations

Conclusion

Food stall owners at Centro Ormoc Food Park generally demonstrate strong awareness of food safety principles, sound understanding of food safety practices, high regulatory compliance, and consistent self-reported hygiene and food-handling behavior. Their attitudes toward food safety, while still positive overall, are comparatively less strongly held than their knowledge and reported practice, suggesting an opportunity to strengthen vendor confidence and motivation alongside their already-solid knowledge base. Continuous food safety training and monitoring, tailored to the specific weaker items identified within each construct, is likely to further reinforce safe practices and help sustain them over time, to the benefit of both vendors and the consumers they serve.

Recommendations

Based on the findings, the following recommendations are proposed. Recommendations 1–5 draw directly on the survey results reported above (in particular, the specific lower-scoring items within each construct).

1. **Institute regular, short-format food safety refresher sessions.** Brief, periodic training focused specifically on hand hygiene, pest-contamination awareness, and separation of raw and cooked food — the lowest-scoring items in the Awareness and Understanding constructs — delivered through simple, demonstration-based methods accessible to all vendors.
2. **Post visible hygiene reminders throughout the food park.** Simple signage (e.g., handwashing reminders, keep-food-covered prompts, raw/cooked separation cues) placed at high-visibility points to reinforce the specific practices vendors rated comparatively lower.
3. **Designate a food safety coordinator.** A single point of contact — from food park management or the city health office — to conduct informal cleanliness checks and provide friendly, on-the-spot guidance, building on vendors' already-strong regulatory compliance.
4. **Strengthen attitude and confidence-building components in training.** Because Attitudes toward Food Safety was the lowest-scoring construct, training should explicitly build vendor confidence and buy-in — not only knowledge — for example, through peer testimonials, hands-on practice, and visible recognition of good performers.
5. **Continue and formalize regulatory engagement.** Given vendors' already-high regulatory awareness and compliance (M = 4.81), sustain existing health-office coordination (permits, inspections, waste-management rules) and use it as a channel for delivering the training content above.

1. The source document also proposed the following five additional recommendations, which reference specific site conditions not documented elsewhere in this study:

6. **Provide a steady, clean water source for all vendors.** Limited access to clean water was identified as a constraint on handwashing, utensil cleaning, and general sanitation; additional water lines or refill stations were recommended.
7. **Establish clear rules restricting animals inside the food park.** The presence of roaming dogs inside the premises was cited as a contamination risk in open food-preparation areas.
8. **Require consistent use of protective attire by staff.** Aprons, gloves, or hairnets were recommended for staff handling food or cleaning tables, particularly during peak hours.
9. **Relocate the garbage collection area away from the dining area.** The current waste site's proximity to dining areas was cited as a source of odor, flies, and pest attraction.
10. **Strengthen monitoring of food storage to prevent spoilage and bacterial growth.** Reported findings of worms in cooked meat and E. coli on utensils described as "cleaned" were cited as grounds for stricter marination-time, temperature, and sanitation monitoring.

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Proposed Intervention Framework

As a starting point for implementing the above recommendations, the source study proposed the following simple program logic for a food safety and sanitation intervention at Centro Ormoc Food Park:

Table 10. ***Proposed Food Safety Awareness and Sanitation Intervention Program***

Data Collection Approach	Focus Areas	Delivery Strategies	Evaluation
Conduct surveys and observations in food stalls to gather regular feedback from food handlers.	(1) Food hygiene practices (e.g., handwashing, storage, cleanliness); (2) Sanitation practices (e.g., waste disposal, use of disinfectants); (3) Knowledge and training access.	(1) Community-based training and certification; (2) Peer-led sanitation mentoring; (3) Visual sanitation guides in public food areas.	Regular assessments and feedback collection to evaluate knowledge retention and behavioral change; results used to revise future interventions.

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