

# Assessment of Food Safety and Hygiene Practices Among Canteen Owners in Ede, Osun State, Nigeria.

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## ABSTRACT

This study evaluates food safety and hygiene practices among Ede, Osun State, Nigeria canteen owners. The study uses a mixed-methods approach, integrating quantitative and qualitative data collection techniques. 200 respondents participated in the survey, revealing significant demographic insights. The age distribution indicated that 10.0% were aged 20-25 years, 15.6% were aged 26-30 years, 30.0% were aged 31-35 years, and a notable 44.4% were aged 36 years and above, suggesting a predominance of older respondents. Gender analysis highlighted a substantial female majority, with 87.8% of respondents identifying as female. Educational qualifications varied, with 37.8% holding O'level qualifications, making it the most common level attained. Religious affiliation showed that 65.6% were Christians, while job experience in food services revealed that 37.8% had 1-5 years of experience. On hygiene practices, the results were promising: 56.6% of canteens had adequate washing facilities, and an impressive 88.9% practiced handwashing when switching between raw and ready-to-eat foods. However, less than half of the respondents demonstrated sufficient hygiene and food preservation knowledge. The findings underscore the critical need for targeted education on food safety to mitigate health risks associated with improper food handling. Additionally, the nutritional assessment indicated that most canteen owners maintained an average weight, reflecting good nutritional status among this group. This study provides essential insights for developing effective training programs to enhance food safety standards in canteens, ultimately promoting better public health outcomes in the community.

**Keywords:** Food Safety, Hygiene, Practices, Canteen, Owners, Ede.

## INTRODUCTION

Food safety and hygiene practices are critical in ensuring consumers' health and well-being, particularly in food service establishments such as canteens. In Ede, Osun State, Nigeria, assessing these practices among canteen owners is essential due to the rising concerns over foodborne illnesses linked to inadequate hygiene standards. (Kinyua, 2024) This study aims to evaluate the current food safety and hygiene practices among canteen owners in the region, identifying gaps in knowledge and implementation that may contribute to health risks.

The research employs a mixed-methods approach, integrating quantitative surveys and qualitative interviews to gather comprehensive data from canteen owners. By exploring their understanding of food safety regulations, personal hygiene practices, and the sanitary conditions of their establishments, this study seeks to highlight the socio-economic impacts of food safety on community health.

Previous studies have demonstrated that poor hygiene practices among food handlers significantly contribute to foodborne diseases (Zenbaba et al., 2022; Negassa et al., 2022; Oyinloye et al., 2024), underscoring the necessity for practical training and adherence to safety protocols. The findings from this assessment will not only provide

insights into the current state of food hygiene in Ede. Still, they will also inform stakeholders and policymakers about necessary interventions to enhance food safety standards in canteens. Ultimately, this research aims to promote better consumer health outcomes while supporting sustainable practices among food service providers.

## METHODOLOGY

The study uses a mixed-methods approach, integrating quantitative and qualitative data collection techniques.

### Study Area

The research was conducted in Ede, Osun State, Nigeria, which is known for its vibrant canteen culture and catering to a diverse population.

### Sample Size

The total sample size for this study is 200 canteen owners, selected to ensure a representative understanding of food safety practices within the community.

### Data Collection

Data were collected using two primary methods: **Quantitative Method:** A structured questionnaire was developed and distributed to the selected canteen owners. The questionnaire included closed-ended questions aimed at assessing knowledge of food safety regulations, personal hygiene practices, and the sanitary conditions of their establishments. The responses were quantified to facilitate statistical analysis. **Qualitative Method:** In-depth interviews were conducted with a subset of 40 canteen owners to gain deeper insights into their attitudes towards food safety and hygiene practices. This qualitative approach allowed for exploring personal experiences and perceptions that the questionnaire may not capture.

### Data Analysis

Quantitative data was analysed using statistical software (SPSS version 16) to calculate descriptive statistics and identify trends in food safety knowledge and practices. Qualitative data from interviews were transcribed and analysed thematically to extract key themes and insights related to food safety practices.

### Ethical Considerations

Ethical approval was obtained from the Ministry of Health Osogbo Osun State, and informed consent was secured from all participants before data collection to ensure confidentiality and respect for their rights.

## RESULTS

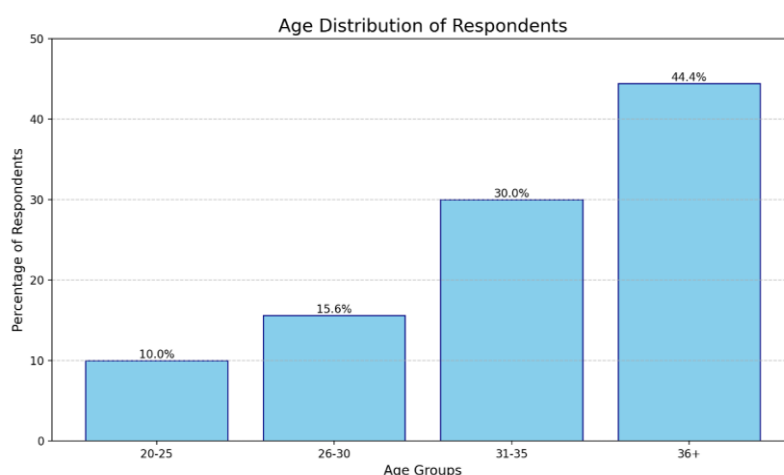


Figure 1. Age distribution of the respondents

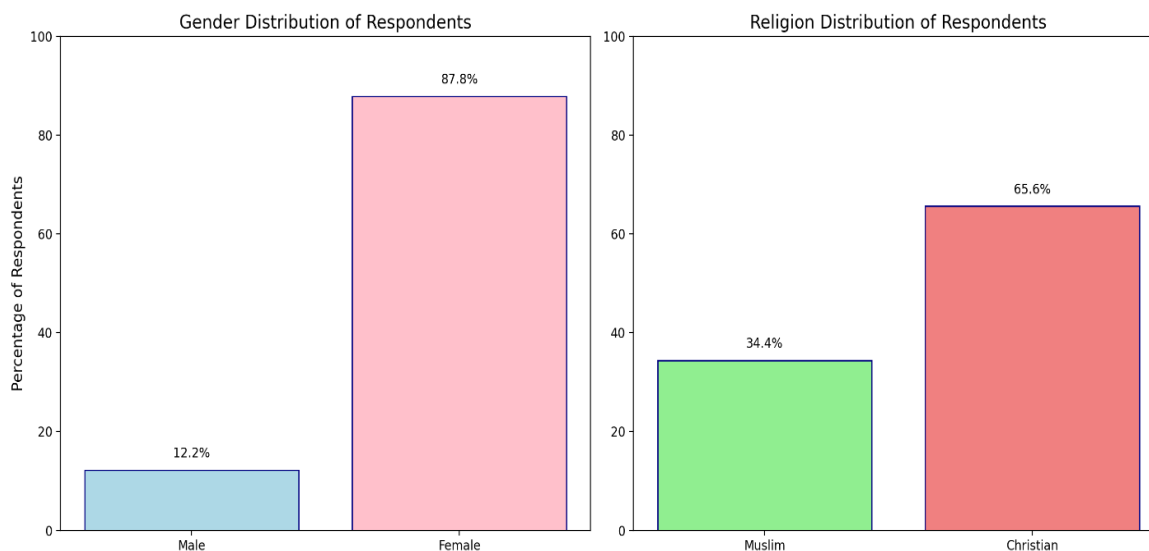


Figure 2. Gender and Religions distribution of respondents

Table 4.1 Job Experience in Food Service

Job Experience	Frequency	Percentage (%)
Less than a year	18	20
1-5 years	34	37.8
5-10 years	19	17.8
Above 10 years	22	24.4
<b>Total</b>	<b>90</b>	<b>100</b>

Table 4.2 The educational qualifications and hygiene practices among canteen owners in Ede.

Category	Percentage (%)	Description
<b>Educational Qualifications</b>		
First School Leaving Certificate	8.9	Respondents with this qualification
O'level	37.8	Highest qualification respondents
OND/NCE	32.2	Respondents with this qualification
B. Sc/HND	21.1	Respondents with this qualification
<b>Washing Facilities (Restaurants)</b>		
Good Washing Facilities	56.6	Adequate washing facilities
Poor Washing Facilities	44.4	Lacking adequate washing facilities
<b>Handwashing Practices by Respondents</b>		
Washing in-between Foods	88.9	Practice handwashing
Do Not Wash Hands	11.1	Do not practice handwashing
<b>Hair Covering While Cooking</b>		
Cover Hair While Cooking	96.7	Cover their hair while cooking
Do Not Cover Hair	3.3	Do not cover their hair while cooking

Food Contamination Prevention		
Prevent Food Contamination	81.1	Take measures to prevent food contamination
Do Not Prevent Food Contamination	18.9	Do not take measures to prevent contamination

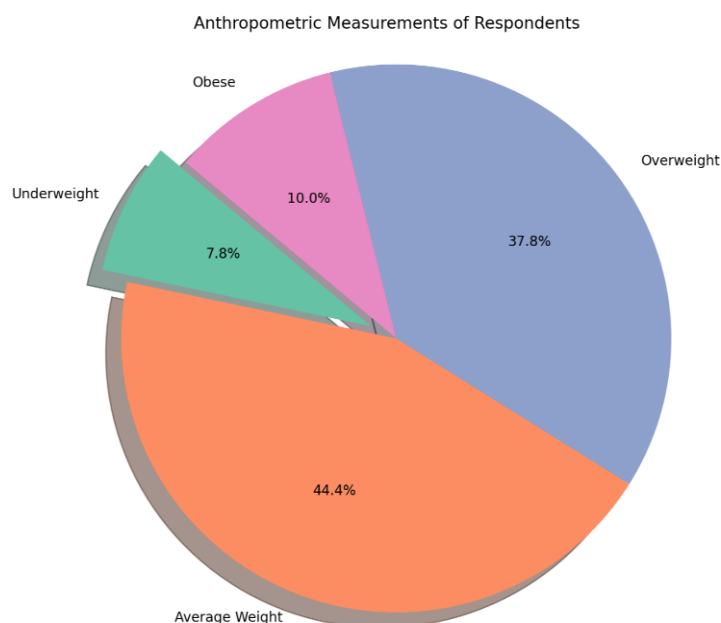


Figure 3. Anthropometric measurements of Respondents

## RESULTS DISCUSSION

The age distribution of respondents reveals that 10.0% are aged 20-25 years, 15.6% are aged 26-30 years, 30.0% are aged 31-35 years, and 44.4% are aged 36 years and above; this result was in tandem with work done by Thakur (2022) in food consumption in Kuopio, Finland. This indicates a predominance of respondents in the older age group. Gender analysis shows that 12.2% of respondents are male, while 87.8% are female, highlighting a significant female majority. The result is in line with work done by (Czarniecka *et al.*, 2020) on Attitudes and consumer behaviour toward foods offered in staff canteens.

Regarding educational qualifications, 8.9% hold a First School Leaving Certificate, 37.8% have O'level qualifications, 32.2% possess OND/NCE qualifications, and 21.1% have B. Sc/HND degrees, with O'level being the most common qualification. Mengeda *et al.* (2020) gather information on educated people as the predominant canteen owners. The knowledge of hygiene practices will help to improve the level of hygiene and facilities in their canteens.

Regarding religious affiliation, 34.4% of respondents are Muslim, and 65.6% are Christian, indicating a higher proportion of Christians. The high level of Muslims in the study shows that the area of study was predominantly Muslim. Job experience in food services shows that 20.0% have less than one year of experience, 37.8% have 1-5 years, 17.8% have 5-10 years, and 24.4% have over ten years of experience, with the majority falling in the 1–5-year range. The higher the year of experience, the fewer the owners are falling out of business; this may suggest that food canteens may be challenging to maintain, or the cooking chores could be tiring, lousy location and poor patronage Ohlhausen & Langen, (2021).

On hygiene practices, 56.6% of restaurants have good washing facilities, while 88.9% wash their hands when switching between raw and ready-to-eat foods. Additionally, 96.7% cover their hair while cooking, and 81.1% prevent food contamination by keeping food off the floor and using cupboards. Nkhebenyane, & Lues (2020); Hassan, & Fweja (2020)

## CONCLUSION

Food contamination resulting from improper handling by food vendors poses significant health risks, particularly in developing nations like Nigeria, where regulatory frameworks are often inadequate. This study assessed food safety and hygiene practices among canteen owners in Ede, Osun State, Nigeria. The findings revealed that less than half of the respondents possessed adequate knowledge regarding hygiene and food preservation practices. While most participants demonstrated satisfactory hygiene practices, some still engaged in unsafe practices, highlighting the need for targeted education on food safety.

Additionally, the nutritional assessment of canteen owners and staff indicated that the majority maintained an average weight, suggesting good nutritional status among this group. This underscores the importance of improving knowledge and practices related to food safety and promoting overall health among food handlers. Enhancing education on hygiene practices is crucial, as expertise alone is insufficient without practical application. This study provides valuable insights for developing effective training programs to improve food safety standards in canteens, ultimately contributing to better public health outcomes in the community.

## REFERENCES

1. Augustin, J. C., Kooh, P., Bayeux, T., Guillier, L., Meyer, T., Jourdan-Da Silva, N., ... & Anses Working Group on Consumer Information on Foodborne Biological Risks. (2020). Contribution of foods and poor food-handling practices to the burden of foodborne infectious diseases in France. *Foods*, 9(11), 1644.
2. Czarniecka-Skubina, E., Górska-Warsewicz, H., & Trafiałek, J. (2020). Attitudes and consumer behavior toward foods offered in staff canteens. *International journal of environmental research and public health*, 17(17), 6239.
3. Hassan, J. K., & Fweja, L. W. (2020). Assessment of food safety knowledge and compliance to hygienic practices among street food vendors in Zanzibar urban district. *Current Journal of Applied Science and Technology*, 39(7), 59-72.
4. Kinyua, P. M. (2024). Food Handling and Safety Practices Influencing Bacteriological Contamination in Food Establishments in Nairobi City County, Kenya (Doctoral dissertation, Kenyatta University).
5. Mengeda, T. J., Gesese, S. A., Geleta, F. T., Geleta, B. D., & Gemed, D. E. (2020). Food Safety Awareness and Practices of Food Handlers in Cafes and Restaurants of Ambo, Guder and Ginchi Towns of West Shoa Zone, Oromia National Regional State, Ethiopia. *Health*, 3, 2-5.
6. Nazzal, A. (2021). Evaluation of Food Safety Awareness and Practices Among Restaurants Food Handlers in Northern of West Bank Palestine (Doctoral dissertation).
7. Negassa, B., Ashuro, Z., & Soboksa, N. E. (2022). Hygienic food handling practices and associated factors among food handlers in Ethiopia: a systematic review and meta-analysis. *Environmental Health Insights*, 16, 11786302221105320.
8. Nkhebenyane, J. S., & Lues, R. (2020). Food handlers' knowledge, attitude, and practices in central South African hospices. *Food science & nutrition*, 8(6), 2598–2607.
9. Ohlhausen, P., & Langen, N. (2021). Spontaneous variety-seeking meal choice in business canteens impedes sustainable production: Sustainability, 13(2), 746.
10. Omar, B. A., Shadia, S. M., Anas, S. D., & Mohammed, A. E. (2020). Food hygiene knowledge, attitude and practices among hospital food handlers in Elmanagil City, Sudan. *African Journal of Microbiology Research*, 14(4), 106–111.
11. Oyinloye O.D & Abiona Olutayo Adesina & Samuel Oluwatobi Abiona, 2024. "The Impact of Lifestyle Factors on Reproductive Performance in the General Population in Ede Local Government Area, Osun State," *International Journal of Research and Innovation in Social Science*, *International Journal of Research and Innovation in Social Science (IJRISS)*, vol. 8(7), pages 2809-2814, July.
12. Thakur, S. (2022). Food consumption trends among 48 to 57-year-old women in Kuopio, Finland: 25 years follow-up OSTPRE study (master's thesis, Itä-Suomen yliopisto).
13. Zenbaba, D., Sahiledengle, B., Nugusu, F., Beressa, G., Desta, F., Atlaw, D., & Chattu, V. K. (2022). Food hygiene practices and determinants among food handlers in Ethiopia: a systematic review and meta-analysis. *Tropical Medicine and Health*, 50(1), 34.