

CORRECTIONS

Abstract

The abstract is clear and succinct, effectively summarizing the study's purpose, methods, findings, and implications. Keywords are included to highlight the focus areas of the study.

Gaps:

While the abstract is comprehensive, it could benefit from mentioning the specific types of RTE foods sampled (spaghetti, fried rice, etc.) and their distribution across vending sites.

There is no mention of study limitations or future research directions, which could provide context for interpreting the findings.

Briefly mention any limitations of the study (e.g., sample size, specific methodologies) and suggest potential avenues for future research (e.g., longitudinal studies, intervention trials).

Introduction

Form

The introduction is well structured and logically organized, progressing from general to specific topics. It ends by setting the stage for the study's aim, highlighting the specific context of Baze University, Abuja, Nigeria.

The language used is clear and straightforward, making it accessible to a wide audience. The introduction references relevant literature, providing a solid foundation for the study. Authors and dates are cited properly, ensuring that readers can locate the original sources if needed.

Content

The content of the introduction is highly relevant to the study's focus on the bacteriological quality of RTE foods. It highlights the industrial processes involved in preparing RTE foods and the potential points of contamination. The introduction underscores the significance of the study by presenting data on the economic and health impacts of foodborne illnesses. The objective of the study is clearly stated at the end of the introduction, providing a clear direction for the research.

Recommendations for Improvement

Explicitly stating the gaps in the current literature that the study aims to fill could further justify the research. This would help to underline the novelty and importance of the study.

While the introduction touches on the economic and health impacts of contaminated food, linking the specific study to broader public health initiatives or policies could enhance its relevance.

Sentence Corrections:

Correct minor grammatical errors and improve sentence structure for clarity and readability.

1. "Foods in this category usually contain raw materials of animal origin, such as eggs, fish, meat, and poultry, which are cooked to reach a minimum internal temperature and held for a minimum required time to destroy microorganisms of public health concern."
2. "In an industrial setting, the cooking step is achieved through thermal processing using steam, hot water, microwaves, or infrared."
3. "Due to improper handling, serving mechanisms, or poor packaging, pathogenic microorganisms can contaminate ready-to-eat foods, causing illnesses of varying severity (Ogunyemi et al., 2015)."
4. "The rapid rise in population density has increased the production of RTE foods. Based on their affordability and accessibility, catering firms and related establishments provide RTE meals at various private and public institutions, such as medical facilities, nursing homes, educational institutions, military bases, and strategic points in public places (Öz et al., 2014)."
5. "These include being away from home while traveling, studying, or working, as well as the desire for a change in food type or location."
6. "Despite the available empirical data on foodborne bacterial contamination of RTE foods globally, there is a heavy dependence on poorly processed and packaged RTE foods in low- and middle-income countries, such as Nigeria (Makinde et al., 2020)."
7. "Such data are necessary to elucidate the broad picture of food safety contaminants in these widely consumed foods."
8. "Moreover, the World Health Organization reports that 45% of the foodborne disease burden occurs among populations that are major consumers of RTE foods."

Materials and methods

Form

The section is well organized, starting with sample collection and followed by the bacteriological analysis. Each subsection is clearly titled, making it easy to follow the methodology. The procedures are described clearly and concisely, making it easy to understand the steps taken during the study. However, a few grammatical and formatting issues need attention for better clarity.

Content

The methods for identifying bacterial isolates are standard microbiological techniques

Recommendations for Improvement

1. Specify the criteria used for selecting food-vending locations (e.g., random selection, specific characteristics).
2. Include the period during which samples were collected to enhance reproducibility.
3. Mention the specific type and manufacturer of the peptone water and any other reagents used.
4. Specify the type of diluents used in the serial dilution.
5. Provide details on how representative isolates were selected for further analysis.
6. Specify the storage conditions for maintaining pure cultures in the refrigerator (e.g., temperature)

7. Include detailed protocols or references for the standard microbiological tests (catalase, oxidase, citrate, coagulase, and TSI).
8. Mention any controls used during the tests to ensure result accuracy.
9. Specify the source and preparation method for the blood agar base.
10. Provide incubation conditions (temperature, duration) for the haemolysis test.
11. Detail the criteria for determining positive haemolysin production.
12. Specify the method used for antibiotic susceptibility testing (e.g., disk diffusion, MIC determination).
13. Include the standards or guidelines followed (e.g., CLSI or EUCAST).
14. Detail the interpretation criteria for susceptibility or resistance.
15. The specific statistical tests or analyses performed (e.g., mean, standard deviation, chi-square test) are not mentioned.
16. It would be useful to describe how the data were collected and prepared for analysis.

Sentence Corrections:

Correct minor grammatical errors and improve sentence structure for clarity and readability.

1. "Fifty freshly cooked RTE food samples were collected from major food vending locations at Baze University, Abuja. The samples included 10 each of fried rice, jollof rice, yam, spaghetti, and moi-moi. The samples were immediately transferred in ice packs to the Microbiology Lab, Department of Microbiology, Baze University, Abuja, for bacteriological analysis."
2. Duplicate plates for each dilution were spread plated per food sample and incubated at 37°C for 24 hours. The total bacterial count (TBC) was enumerated. Thereafter, an assessment of the cultural characteristics (colony color, elevation, and edges) and examination of cell morphology (color, shape, and arrangement) after Gram staining were performed for each isolate. Representative isolates, selected after the aforementioned examinations, were maintained as pure cultures on nutrient agar slants and kept in the refrigerator."
3. "The bacterial isolates were identified using standard microbiological methods, including catalase, oxidase, citrate, and coagulase tests, as well as reactions on Triple Sugar Iron (TSI) agar."
4. "The potential of the isolates to cause foodborne illness was assessed by testing for haemolysin production. These tests, although not definitive, are easy to perform in resource-limited settings. A haemolysis test was conducted on each isolate using freshly prepared blood agar (5% antibiotic-free human blood in 1000 mL blood agar base, v/v)."
5. "Antibiotic susceptibility testing was performed to determine the antibiotics that could potentially inhibit the bacteria causing foodborne illness. The antibiotics tested included Amoxicillin, Ampicillin, Tetracycline, Ciprofloxacin, Erythromycin, and Gentamycin."
6. "Data on the occurrence of bacteria in the RTE foods were analyzed using SPSS Statistics version 20.0 (SPSS Inc., Chicago, IL, USA). Descriptive statistics were applied to elucidate the distribution of bacteria in the different RTE food types."

Results and discussion

Form

The section is organized with a clear focus on the bacterial count in RTE food samples and a discussion of the results. The results are presented clearly, with specific values given for TBC in different food samples. The discussion provides context and potential reasons for the observed results. The information is presented in a logical order, starting with the total number of isolates and then detailing their distribution among the different food types.

Content

The total number of different bacterial isolates (35) recovered from the RTE food samples is clearly stated. The basis for identifying these isolates (cultural and morphological characteristics) is mentioned.

Recommendations for Improvement

1. Include a discussion on the statistical significance of the differences in bacterial contamination among the different food types.
2. Include a brief discussion on the significance of the percentage occurrences of the bacterial species in relation to food safety and public health.
3. There is no discussion of the statistical significance or methodology used to obtain the haemolytic reaction percentages.
4. The section could benefit from a brief mention of control measures to prevent contamination.
5. The criteria for categorizing isolates as sensitive, intermediate, or resistant are not mentioned.
6. There is no discussion of the implications of these findings for public health or food safety.
7. The results for the other three food samples (fried rice, jollof rice, and moi-moi) are not mentioned, leaving the analysis incomplete.
8. The statistical significance of the differences in TBC among food samples is not discussed.
9. There is no mention of any control measures or baseline data to compare the TBC results
10. Include the specific types of bacteria isolated from each food sample to provide a clearer understanding of the potential health risks.

Conclusion

The conclusion is generally clear and straightforward, effectively summarizing the key findings and implications.

Recommendations for Improvement

Briefly acknowledge any study limitations and suggest future research directions to further explore the identified issues.

References

The references chosen provide a comprehensive background and context for the study on RTE foods at Baze University. They cover a range of topics including specific pathogens (Staphylococcus, Streptococcus, Corynebacterium), microbial contamination in various food types, antimicrobial resistance, and outbreaks related to foodborne illnesses. This breadth of

literature strengthens the scientific basis of the study and supports the conclusions drawn regarding the microbial quality and safety concerns of RTE foods.