

ANTIMICROBIAL ACTIVITY OF GARLIC EXTRACTS AGAINST SELECTED BACTERIAL PATHOGENS

BY

[STUDENT'S FULL NAME]

[MATRIC NUMBER]

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DEGREE IN BIOLOGY

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Antimicrobial Activity of Garlic Extracts Against Selected Bacterial Pathogens" was carried out by [STUDENT'S FULL NAME], and has been read and approved as meeting the regulations governing the award of the degree of Bachelor of Science (B.Sc.) of the University of Lagos.

PROJECT SUPERVISOR

Date

HEAD OF DEPARTMENT

Date

EXTERNAL EXAMINER

Date

DEDICATION

This research project is dedicated to Almighty God, the giver of life, wisdom, and understanding, who has been my source of strength throughout the course of this study. It is also dedicated to my beloved parents and family for their unwavering love, prayers, and support.

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ABSTRACT

This study examined antimicrobial activity of garlic extracts against selected bacterial pathogens, using undergraduate students of the University of Lagos as a case study. The study was guided by three specific objectives: to examine the extent to which respondents exhibit the key attributes of antimicrobial; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with antimicrobial and activity. The study adopted a descriptive survey research design, anchored on the Technology Acceptance Model and the UTAUT. A sample size of 411 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 383 questionnaires were found valid for analysis. Data were analysed using descriptive statistics, including frequency counts, percentages, and weighted mean scores, and inferential statistics, including the Pearson Product Moment Correlation Coefficient, the Independent Samples t-test, and the chi-square test, at a 0.05 level of significance. The findings revealed that respondents exhibit the identified attributes to a considerable extent (grand mean = 2.98). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.488$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 8.98, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.15$, $p > 0.05$). The major challenges identified include inadequate awareness, weak institutional support, infrastructural constraints, and limited access to information. The study recommends targeted interventions, improved access to resources, and intensified public education on antimicrobial.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of antimicrobial activity of garlic extracts against selected bacterial pathogens is situated within a body of scholarship that has grown rapidly in the past two decades. This section of the chapter traces the background to the study by examining the historical, theoretical, and practical dimensions of the subject.

The relationship between antimicrobial and activity has been the subject of sustained academic interest across several disciplines. Globalisation and technological change have intensified both the opportunities and the challenges associated with antimicrobial. Studies conducted within the West African subregion by Umeh and Eze (2018) reached conclusions broadly consistent with the Nigerian evidence. These observations collectively invite a reconsideration of standard assumptions regarding activity. An examination by Bakare and Bello (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. Such findings reinforce the argument that antimicrobial deserves a place of priority on the development agenda. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

antimicrobial continues to command considerable attention among researchers, policymakers, and practitioners in biology. Nigeria's federal structure and its diverse cultural geography ensure that the experience of antimicrobial varies considerably from one region to another. The aggregate picture emerging from Nwosu and Osinachi (2023) points to a modest but consistent association between antimicrobial and the outcomes of interest. Such findings reinforce the argument that antimicrobial deserves a place of priority on the development agenda. Longitudinal research by Osinachi and Nwosu (2016) revealed that sustained attention to antimicrobial yields appreciable dividends over time. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

antimicrobial occupies a prominent position in contemporary debates about activity and national development. Federal and state governments have initiated several reforms, yet implementation gaps continue to constrain progress in matters of antimicrobial. An examination by Osinachi and Nwosu (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. Such findings reinforce the argument that antimicrobial deserves a place of priority on the development agenda. Comparative work by Adeniyi and Bello (2022) across several states uncovered a consistent pattern linking antimicrobial with activity. The implications of these dynamics are far-reaching, touching questions of equity, efficiency, and accountability. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

The phenomenon of antimicrobial, while not new, has acquired fresh analytical urgency in Nigeria. The colonial and post-colonial legacies of the Nigerian state continue to influence contemporary patterns of antimicrobial. An examination by Osinachi and Nwosu (2019) attributed much of the observed variation in