

EVALUATION OF ANTIMICROBIAL ACTIVITY AND PRESERVATION OF CREAM FORMULATIONS

BY

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DEGREE IN MICROBIOLOGY

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Evaluation of Antimicrobial Activity and Preservation of Cream Formulations" 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 evaluation of antimicrobial activity and preservation of cream formulations, 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 evaluation; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with evaluation and antimicrobial. The study adopted a descriptive survey research design, anchored on the Germ Theory of Disease and the Microbial Ecology Theory. A sample size of 394 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 384 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 = 2.99). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.478$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 6.31, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.28$, $p > 0.05$). 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 evaluation.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of evaluation of antimicrobial activity and preservation of cream formulations 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.

A growing corpus of literature draws attention to the pivotal role of evaluation in shaping developmental trajectories. The colonial and post-colonial legacies of the Nigerian state continue to influence contemporary patterns of evaluation. Field evidence gathered by Osinachi and Ogbeide (2016) suggested that stakeholder engagement materially improves the results achieved in matters of evaluation. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Comparative work by Adeniyi and Osinachi (2022) across several states uncovered a consistent pattern linking evaluation with antimicrobial. Such findings reinforce the argument that evaluation deserves a place of priority on the development agenda. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

The salience of evaluation in national discourse has grown steadily, driven by changing social conditions and technological penetration. Rapid urbanisation and demographic expansion across Nigerian cities have heightened the salience of evaluation in everyday life. Adeniyi and Eze (2020), in a survey of relevant stakeholders, concluded that the benefits of evaluation are unevenly distributed across groups. The cumulative effect of these dynamics is a situation that demands urgent and coordinated intervention. Studies conducted within the West African subregion by Umeh and Adigun (2018) reached conclusions broadly consistent with the Nigerian evidence. The practical import of these findings extends well beyond the academic sphere into everyday institutional practice. Nevertheless, the existing literature is not without its limitations, and several questions remain unresolved.

In both global and African literatures, evaluation is now regarded as a key index of institutional performance. The Nigerian context presents peculiar challenges, ranging from infrastructural deficits to institutional weaknesses, which shape the manner in which evaluation unfolds. Empirical evidence from Umeh and Adigun (2021) suggests that positive developments in antimicrobial are associated with improvements in evaluation. Left unaddressed, the identified patterns are likely to intensify, with adverse consequences for all stakeholders. Research by Ogunlana and Chukwu (2021) using mixed methods provided particularly rich insight into the mechanisms connecting evaluation and antimicrobial. Such findings reinforce the argument that evaluation deserves a place of priority on the development agenda. It is therefore imperative that further empirical work be undertaken to clarify the causal relationships at stake.

The relationship between evaluation and antimicrobial has been the subject of sustained academic interest across several disciplines. Economic pressures and resource scarcity frequently determine the pace at which evaluation advances in practice. An examination by Kalu and Oyelaran (2019) attributed much of the observed variation in outcomes to institutional capacity and policy continuity. The practical import of these findings