

PREVALENCE OF *SHIGELLA* AND *SALMONELLA* SPECIES IN CHILDREN UNDER FIVE YEARS WITH DIARRHEA IN ENUGU STATE UNIVERSITY TEACHING HOSPITAL

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A RESEARCH PROJECT PRESENTED TO THE DEPARTMENT OF MEDICAL LABORATORY SCIENCE, FACULTY OF ALLIED HEALTH SCIENCES, COLLEGE OF MEDICINE, ENUGU STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY

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ABSTRACT

This study explores the prevalence of *Shigella* and *Salmonella* species among children under five years with diarrhea attending ESUT Teaching Hospital, Park Lane. Previous studies in Nigeria have reported varying prevalence rates of *Shigella* (22.1-43.8%) and *Salmonella* (15.6-51.3%) species among children with diarrhea. However, these studies have limitations, including small sample sizes, limited geographic representation, and variability in diagnostic methods. Hence, this study aims to bridge the knowledge gap by determining the prevalence, antibiotic resistance patterns, and risk factors associated with *Shigella* and *Salmonella* species among children under five years with diarrhea at Park Lane Hospital, ESUT. Data was collected through stool samples, questionnaire administration, and laboratory analysis, and the analysis was done using descriptive statistics (frequency, percentage, mean, standard deviation), inferential statistics (chi-square test, Fisher's exact test), multivariate analysis (logistic regression). From its findings/results, the study identified that *Salmonella* species, compared to *Shigella*, is the primary bacterial pathogen in children under five years with diarrhea at ESUT Teaching Hospital, Park Lane. The study also observed the rising antimicrobial resistance patterns of *Salmonella* species to commonly used antibiotics, including Nitrofurantoin, Chloramphenicol, and Clarithromycin, as well as moderate resistance to other antibiotics such as Ofloxacin and Ceftriaxone. Hence, it recommends that, in addition to improved water sanitation and hygiene practices, rational antibiotic use and alternative treatment strategies for managing *Salmonella* infections be considered by health service providers.

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