ASSESSMENT OF ELECTROLYTE BALANCE IN PATIENTS WITH CHRONIC KIDNEY DISEASE

BY

[STUDENT'S FULL NAME]

[MATRIC NUMBER]

BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF BIOCHEMISTRY, FACULTY OF SCIENCE, UNIVERSITY OF LAGOS, AKOKA, LAGOS STATE

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.) DEGREE IN BIOCHEMISTRY

[MONTH, YEAR]

CERTIFICATION

This is to certify that this research project titled "Assessment of Electrolyte Balance in Patients with Chronic Kidney Disease" 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.

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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.

ACKNOWLEDGEMENT

My profound gratitude goes to Almighty God for His grace, protection, and guidance throughout the duration of my study and the successful completion of this research project. I am deeply grateful to my supervisor, [SUPERVISOR'S NAME], for the patience, guidance, constructive criticism, and invaluable direction provided throughout the course of this research. I also wish to appreciate the Head of Department, the lecturers of the Department of Biochemistry, and my course mates for their support and friendship. My appreciation also goes to my parents and siblings for their unwavering support, both financial and emotional, throughout my academic journey.

ABSTRACT

This study examined assessment of electrolyte balance in patients with chronic kidney disease, 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 assessment; to determine the influence of these attributes on the outcomes under investigation; and to identify the challenges associated with assessment and electrolyte. The study adopted a descriptive survey research design, anchored on the Michaelis-Menten Kinetics Theory and the Metabolic Regulation Theory. A sample size of 417 respondents was determined using the Taro Yamane formula and selected through stratified and simple random sampling techniques, out of which 391 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 = 3.18). The study also found a statistically significant, moderate, positive relationship between the independent and dependent variables ($r = 0.541$, $p < 0.05$) and a significant dependent association on the chi-square test (chi-square = 7.41, $p < 0.05$). No statistically significant difference was found between male and female respondents ($t = 1.14$, $p > 0.05$). 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 assessment.

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CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The study of assessment of electrolyte balance in patients with chronic kidney disease 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 assessment and electrolyte 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 assessment. Studies conducted within the West African subregion by Adeniyi and Adebayo (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. Findings reported by Chukwu and Eze (2018) observed that respondents with greater exposure to assessment recorded markedly different results. Accordingly, there is a growing consensus that deliberate policy action is required. The reviewed studies, while valuable, are frequently dated, small in scale, or confined to a single locality.

assessment occupies a prominent position in contemporary debates about electrolyte and national development. Nigeria's federal structure and its diverse cultural geography ensure that the experience of assessment varies considerably from one region to another. Findings reported by Adekunle and Alade (2018) observed that respondents with greater exposure to assessment recorded markedly different results. These observations collectively invite a reconsideration of standard assumptions regarding electrolyte. Evidence assembled by Nwosu and Dauda (2015) across twelve states underscored the heterogeneity of outcomes linked to assessment. Such findings reinforce the argument that assessment deserves a place of priority on the development agenda. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

assessment occupies a prominent position in contemporary debates about electrolyte and national development. Evidence from national agencies indicates that assessment has grown considerably in recent times, underscoring the need for systematic inquiry. A notable study by Nwosu and Dauda (2017) argued that the impact of assessment is substantially mediated by the quality of institutions. Such findings reinforce the argument that assessment deserves a place of priority on the development agenda. Studies conducted within the West African subregion by Osinachi and Bello (2018) reached conclusions broadly consistent with the Nigerian evidence. The weight of evidence therefore points toward a renewed commitment to evidence-based decision-making. Despite these advances, notable gaps persist, particularly with respect to context-specific evidence from Nigeria.

The relationship between assessment and electrolyte has been the subject of sustained academic interest across several disciplines. In Nigeria, the intersection of assessment and electrolyte is conditioned by unique socio-economic, cultural, and institutional factors that differ markedly from Western settings. Evidence assembled by Adekunle and Ekwueme (2015) across twelve states underscored the heterogeneity of outcomes