EFFECTS OF SPILLOVER, BOUNDARY MANAGEMENT, AND SOCIAL NORMS ON EMPLOYEES' WORK-LIFE BALANCE IN NATIONAL REFERRAL HOSPITALS IN KAMPALA, UGANDA

BY

ARINAITWE ENID

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN HUMAN RESOURCE MANAGEMENT

SCHOOL OF BUSINESS AND ECONOMICS

MASENO UNIVERSITY

©2026

DECLARATION

I hereby certify that this thesis has not been previously submitted for a degree at Maseno University or any other institution. The work presented in this thesis is entirely my own, and all sources of information have been properly acknowledged through appropriate references.

Signature:…….. Date:…….....

ARINAITWE ENID

PhD/BE/00092/021

SUPERVISORS DECLARATION

This thesis has been submitted for examination with our approval, as supervisors appointed by the University Senate.

Signature:…….. Date:…….....

DR. SAMSON NTONGAI

Department of Business Administration

Maseno University

Signature:…….. Date:……

DR. FRANKLINE ODAYO

Department of Business Administration

Maseno University

ACKNOWLEDGEMENT

This thesis would not have been possible without the gracious hand of God and the support and inspiration of many individuals. First and foremost, I wish to express my sincere gratitude to my academic supervisors, Dr. Samson Ntongai and Dr. Odayo Frankline, for their guidance, encouragement, and unwavering support throughout this research journey. I am also deeply grateful for the efforts of Prof. Ombok Benjamin, Prof. Frederick Aila, Prof. Patrick Onyango, Prof. Nelson Obange, Dr. Christine Bando, Dr. George Obonyo, Dr. Gulali Donald, Dr. Caroline Oloo, Dr. Beatrice Abongo, Dr. Kamau, Dr. Ndichu, Dr. Mise, Dr. Renson Wanyonyi, and all the lecturers who taught and guided me through various course units. Their dedication played a pivotal role in shaping my academic growth and intellectual development. I generally appreciate the special guidance from the School of Postgraduate Studies and specifically the Department of Business and Economics for your kind and tireless efforts towards my success. I extend my deepest appreciation to my family, course mates, and colleagues for their unwavering support and encouragement throughout this academic journey.

DEDICATION

This PhD thesis is dedicated with love and deep respect to the memory of my late father, Burahema Edward, whose enduring wisdom and vision continue to inspire my pursuit of knowledge, and to my late mother, Bamubona Batangaza Jairesi, whose life of grace and strength ignites within me a passion for excellence and faithfulness to God. To my beloved husband, Twine Edward, and our children, Masiko Victoria, Nsiimire Grace, Ampurira Sheila, Ayebare Samuel, and Kemigisha Sarah, your unwavering love and prayers have motivated me throughout this journey. To my boss, Katabarwa David (PAS-MoH), brother, Kazahuura David, and my dear sisters, Tumuramye Jolly Peace Karenzi Nalongo and Ninsiima Juliet, your constant support and encouragement have brought light and joy to this demanding journey. Above all, I wholeheartedly dedicate this achievement to the Almighty God, whose boundless grace, guidance, and unfailing love have made this milestone possible. To Him be all the glory and honor.

ABSTRACT

Healthcare workers (HCWs) in Uganda's national referral hospitals struggle to achieve work-life balance (WLB) due to heavy workloads, workforce shortages, and limited supportive policies, leading to high stress levels and low job satisfaction. Globally HCWs face burnout from poor WLB, a challenge worsened in sub-Saharan Africa by staffing deficits. In Uganda, 46% of HCWs consider relocation due to burnout and poor conditions, while Kampala's referral hospitals, handling high patient loads (e.g., 90-120 births monthly with nurse-to-patient ratios exceeding 1:100), provide a critical context for studying WLB dynamics. Existing research focuses narrowly on family-related spillover, overlooking broader dimensions (affect, behavior, values), while other studies focused on identifying factors contributing to positive spillover rather than establishing a causal link between spillover and employee work-life balance. Additionally, some studies on boundary management only looked at one dimension of boundary management (work-family segmentation) thereby overlooking other constructs like work-life integration and boundary control while other studies focused on how people manage boundaries between work and personal life without establishing the causal relationship between boundary management and work-life balance. Moreover, studies that focus on social norms focus on isolated aspects of social norms such as work values or gender roles without integrating critical dimensions of social norms such as social responsibility, agreeableness, and social desirability. Therefore, the purpose of the study was to examine how spillover effects, boundary management, and social norms collectively influence WLB among HCWs in Kampala's referral hospitals, offering insights for policy and workplace interventions. Using a correlational design within a positivist framework, grounded in spillover, work-family border, and cultural-historical activity theories, the study surveyed a stratified random sample of 352 HCWs from a population of 2,914. Validated questionnaires (content validity: 0.900, 0.913; reliability: 0.717, 0.897) were analyzed with descriptive statistics and multiple regression, revealing a strong relationship between predictors and WLB ($R = 0.883$, $R^2 = 0.780$). Social norms ($\beta = 0.641$, $p < 0.001$) and boundary management ($\beta = 0.528$, $p < 0.001$) positively influenced WLB, while spillover had a negative impact ($\beta = -0.255$, $p < 0.001$). These findings, reflecting challenges like 57.4% of HCWs experiencing workload-driven stress and 43.3% intending to leave within six months, highlight the need for targeted interventions. Recommended strategies include flexible scheduling, boundary management training, regular WLB audits, and institutionalizing WLB metrics to address dissatisfaction and reduce turnover intentions. By providing research-backed solutions, this study informs human resource policies in Uganda's healthcare sector and similar high-pressure settings globally, enhancing employee well-being and mitigating burnout. The study recommends hospitals to implement after-hours communication protocols, mandatory recovery periods, and emotional decompression programs. Boundary management should be prioritized through workflow redesign, and scheduling autonomy tools. Social norms require cultural transformation via leadership modeling.

TABLE OF CONTENTS

DECLARATION ii
ACKNOWLEDGEMENT iii
DEDICATION iv
ABSTRACT v
TABLE OF CONTENTS vi
ABBREVIATIONS/ACRONYMS xi
OPERATIONAL DEFINITION OF TERMS xiii
LIST OF TABLES xiv
LIST OF FIGURES xv
CHAPTER ONE:INTRODUCTION 1
1.1 Background to the Study 1
1.1.1 Spillover Effect 4
1.1.2 Boundary Management 6
1.1.3 Social Norms 8
1.2 Statement of the Problem 11
1.3 Objectives 13
1.3.1 Specific Objectives 13
1.4 Research Hypotheses 13
1.5 Significance of the Study 14
1.6 Scope of the Study 15
1.7 Conceptual Framework 16
CHAPTER TWO:LITERATURE REVIEW 20
2.1 Theoretical Literature Review 20
2.1.1 Spillover Theory 21
2.1.2 Cultural-Historical Activity Theory (CHAT) 27
2.1.3 Work-Family Border Theory 29
2.1.4 The Concepts of Spillover Effects, Boundary Management, and Social 31
Norms 31
2.1.4.1 The Concept of Spillover Effects 31
2.1.4.2 The Concept of Boundary Management 32
2.1.4.3 Concept of Social Norms 33
2.1.4.4 Understanding Employees' Work-Life Balance 34

2.2 A Review of Empirical Research on Spillover, Boundary Management, and Social.....37
Norms in Shaping Work-Life Balance 37
2.2.1 The Spillover Effect and Employee Work-Life Balance 37
2.2.2 Managing Boundaries for Improved Work-Life Balance among Employees 43
2.2.3 Social norms and employees' work-life balance 57
2.2.4 Summary of Gaps 70
CHAPTER THREE:METHODOLOGY.....72
3.1 Research Design.....72
3.3 Population of Interest.....73
3.2 Area of Study 73
3.4. Sampling Strategy and Sample Size 75
3.4.1 Sampling Technique 75
3.4.2 Sample.....76
3.4.2.1 Sample size for each Category of Employee 77
3.4.3 Sampling Procedure 78
3.5 Data Collection Methods 78
3.5.1 Data Type and Source.....78
3.5.2 Procedure for Data Collection 78
3.5.3 Data Collection Instruments 78
3.6 Pilot Study.....78
3.6.1 Validity 80
3.6.2 Reliability Test.....82
3.7 Data Analysis.....83
3.7.1 Model Specification and Analytical Approach.....84
3.7.1.1 Spillover Model 84
3.7.1.2 Boundary Management Model 84
3.7.1.3Social Norms Model 85
3.7.1.4Consolidated Multiple Regression Model 86
3.8 Assumptions of the Regression Model. 86
3.8.1 Normality Test of the Residuals 86
3.8.2 Heteroscedasticity Test 88
3.8.3 Multicollinearity Test.....89

3.8.3.1 Multicollinearity Test on Estimated Model 3.1 89
3.8.3.2 Multicollinearity Test on Estimated Model 3.2 90
3.8.3.3 Multicollinearity Test on Estimated Model 3.3 91
3.8.3.4 Multi-collinearity Test on Estimated Model 3.4 92
3.9. Ethical Considerations 93
CHAPTER FOUR:RESULTS AND DISCUSSION 94
4.1 Response rate 94
4.2 Data Preparation 94
4.2.1 Data Cleaning 95
4.2.1.1 Missing Data 95
4.2.1.2 Duplicate Responses 96
4.2.2 Data Coding 96
4.2.3 Data Validation 97
4.3 Demographics Analysis 98
4.4 Descriptive Statistics 102
4.4 Correlation Analysis 104
4.5 The impact of spillover on the work-life balance of employees in national referral hospitals in Kampala. 106
4.5.1 Influence of Affect, Behavior, and Values on Employees' Work-Life Balance in National Referral Hospitals in Kampala. 107
4.5.2 Estimated Coefficients 107
4.5.3 Analysis of Variance (ANOVA) for affect, behavioral, and values-based factors (spillover) influence on Employee Work-Life Balance (EWLB) 108
4.5.4 Model Summary: Spillover Effect on Employee Work-Life Balance (EWLB) 110
4.5.5 Effect of Spillover on Work-Life Balance 113
4.6 The influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala. 113
4.6.1. The Impact of Work-Life Integration, Segmentation, and Boundary Control on Employee Work-Life Balance in Kampala's National Referral Hospitals. 113
4.6.2 ANOVA 116
4.6.3 Model Summary 118
4.6.4 Effect of Boundary Management on Work-Life Balance 121

4.7 The effect of social norms on the work-life balance of employees in national referral hospitals in Kampala. 121
4.7.1 Influence of Social Responsibility, Social Desirability, and Agreeableness on Employee Work-Life Balance in National Referral Hospitals in Kampala. 121
4.7.2 Analysis of Variance....123
4.7.3 Model Summary....124
4.8 Results for the Consolidated Multiple Regression Model....127
4.8.1 Analysis of Variance....129
4.8.2 Model Summary....130
4.8.3 Hypothesis Interpretation....131
4.8.3.1 H01: Spillover does not significantly affect employees' work-life balance within Kampala's national referral hospitals. 132
4.8.3.2H0_2: Boundary management practices do not significantly affect employees' work-life balance within Kampala's national referral hospitals. 132
4.8.3.3H03: Social norms do not have a significant influence on employees' work-life balance within Kampala's national referral hospitals....133
4.9 Discussion of Findings....134
4.9.2 The influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala. 138
4.9.3 The effect of social norms on the work-life balance of employees in national referral hospitals in Kampala. 147
4.9.4 The central role of social norms in shaping work-life balance....152
CHAPTER FIVE:SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.....155
5.1 Introduction....155
5.2 Summary of Findings:....155
5.2.1 The impact of spillover on the work-life balance of employees in national referral hospitals in Kampala. 155
5.2.2 The influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala. 155
5.2.3 The effect of social norms on the work-life balance of employees in national referral hospitals in Kampala. 156
5.3 Conclusions....156

5.3.1 The impact of spillover on the work-life balance of employees in national referral hospitals in Kampala. 156
5.3.2 The influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala. 158
5.2.3 The effect of social norms on the work-life balance of employees in national referral hospitals in Kampala. 159
5.4 Recommendations 160
5.5 Study Contributions 161
5.6 Limitations to the Study 164
5.7 Suggestion for Further Study 165
REFERENCES 166
APPENDICES 172

ABBREVIATIONS/ACRONYMS

ANOVA:	Analysis of Variance
CHAT:	Cultural Historical Activity Theory
CFA:	Confirmatory Factor Analysis
CVI:	Content Validity Index
EFA:	Exploratory Factor Analysis
HRD:	Human Resource Development
HRM:	Human Resource Management
AMOS:	Analysis of Moment Structures
NSE:	Non-Standard Employment
NRHs:	National Referral Hospitals
SDGs:	Sustainable Development Goals (SDGs)
SWF:	Spillover between Work and Family
PLS:	Partial Least Squares
SPSS:	Statistical Packages for Social Sciences
SEM:	Structural Equation Model Analysis
UK:	United Kingdom
USA:	United States of America
WLB:	Work-Life Balance
EWLB:	Employees' work-life balance
SGS:	School of Graduate Studies
MUSERC:	Maseno University Ethics and Review Committee
BSU:	Bishop Stuart University
REC:	Research Ethics committee
AGR:	Agreeableness

WLI: Work life integration

UAE: United Arab Emirates

US: United States

SD: Standard Deviation

COVID-19: Coronavirus Disease 2019

VIF: Variance Inflation Factor

KMO: Kaiser-Meyer-Olkin

NACOSTI: National Commission for Science, Technology and Innovation

MUERC: Maseno University Ethics Review Committee

EAPS: Employee assistance programs

PSWS: Personal Support Workers

FSOP: Family Supportive Organization Perceptions

CEJ-D-10: Current Education Journal

HEIs: Higher Education Institutions

NRH: National Referral Hospital

UBOS: Uganda Bureau of Statistics

SNES: School of Natural and Environmental Studies

WLC: Work-life Conflict

WFB: Work-life Balance

ICT: Information Communication Technology

HR: Human Resource

FFP: Fair Financial Policy

MIDUS: Midlife in the United States

OPERATIONAL DEFINITION OF TERMS

Agreeableness: The extent to which individuals manifest humanity, caring, and emotional support towards others.

Affect: The transfer of positive emotions from one role to another, enhancing the effectiveness in the receiving domain.

Behavior: Ethical behaviors learned at work that positively influence functioning within the family domain.

Boundary control: The ability to control and manage the separation between professional and family roles (*Kossek et al., 2012).*

Boundary management: The capacity to establish and uphold clear boundaries between work and home life.

Involvement balance: Balanced cognitive engagement in both family and work roles.

Integration: Flexibility and permeability of boundaries to facilitate equal attentiveness of work life, family life, and community life domains.

Positive spillover: Positive experiences transferred from one role to another.

Satisfaction balance: A complete contentment level, based on one's evaluation of their success in satisfying family and work demands.

Segmentation: Separating various aspects of family and work through creating strong boundaries around family and work domains.

Spillover: Switching experiences from one role to another role.

Social norms: The established norms that guide behavior within groups and societies, encouraging employees to act in a collective manner.

Social responsibility: The willingness of employees to act in socially responsible ways.

Social desirability: The tendency to respond in socially acceptable ways

Time balance: Employees' equal allocation of time and attention in between roles at home and at work.

Values: The regard that something is held to deserve; the importance, worth, or usefulness of something

Work-life balance: individual's ability to meet work responsibilities, family commitments, and other personal or non-work-related tasks and activities.

LIST OF TABLES

Table 3.1: Accessible Population……..…75

Table 3 2: Study Sample Size……77

Table 3.3 Validity Statistics of Variables……80

Table 3.4 Summary of Cronbach Alpha Reliability Coefficients for study variables…..82

Table 3.5: Collinearity……..92

Table 4.1: Response rate……..94

Table 4.2: Detailed Respondent Demographics……..98

Table 4.3: Statistical Description……...102

Table 4.4: Correlations……..104

Table 4.5: Coefficients……..107

Table 4.6: ANOVA Results[a].....109

Table 4.7: Model Summary…….…110

Table 4.8: Regression Estimates……....114

Table 4.9: ANOVA[a].....117

Table 4.10: Model Summary[b].....118

Table 4.11: Output of the Coefficient……...……121

Table 4.12: Analysis of Variance (ANOVA) Summary[a].....123

Table 4.13: Summary of the Model[b].....125

Table 4.14: Estimated Regression Coefficients[a]……...127

Table 4.15: Analysis of Variance (ANOVA)[a].....129

Table 4.16: Statistics Summary of the Model……..…….130

Table 4.17 Hypotheses Test Results……...……...131

LIST OF FIGURES

Figure 1.1 Conceptual framework relating to spillover, boundary management, social norms, and employees' WLB……..16

Figure 3.1*: Residual Distribution* 87

Figure 3.2*: Heteroscedasticity catterplot*.....88

CHAPTER ONE

INTRODUCTION

This chapter presents the background of the study and frames the context of the research problem. It examines the concept of employee work-life balance alongside related factors, including spillover, boundary management, and social norms within national referral hospitals in Kampala. Furthermore, the chapter details the problem statement, research objectives, hypotheses, study scope, significance, and the conceptual framework guiding the investigation. Spillover effects, a key focus of this study, encompass the transfer of experiences between work and personal life domains, influencing employees' well-being. These effects include stress, job satisfaction, behavior like work habits impacting home responsibilities, and values, conflicts between work and family priorities, measured via 5-point Likert-scale items in validated questionnaires. Boundary management measures work-life integration, segmentation, and boundary control are derived from work-family border theory, justified by their relevance to healthcare workers' high-demand roles, where segmentation significantly enhances WLB

1.1 Background to the Study

The concept of work-life balance (WLB) has become a focal point in academic research across various professional domains globally, including the healthcare sector. Contemporary perspectives on WLB have evolved beyond the traditional focus on balancing employment responsibilities and caregiving duties. They now encompass a broader understanding of life domains such as community participation, elder care, personal convictions, and recreational activities (Shabir & Gani, 2020). Generally, work-life balance refers to a state in which individuals are able to effectively manage their occupational responsibilities alongside personal engagements, including time spent with family, social relationships, and leisure (Marques & Berry, 2021).

Healthcare workers often face considerable challenges in achieving an optimal work-life balance due to the intensive and emotionally demanding nature of their work environments. Factors such as excessive workloads, prolonged working hours, high levels of stress, and emotional strain are common in the profession (Adisa, 2017). For instance, in Poland, stress levels among healthcare personnel have been reported to be particularly high 58.6% among nurses, 56.9% among paramedics, and 50.4% among medical doctors (Izdebski *et al*., 2023). Similarly, research from Singapore shows that healthcare providers dedicate more than 80% of their time to professional duties, leaving less than 20% for personal or family-related activities. This imbalance has been linked to sensitive stress and reduced satisfaction in the workplace. In Africa, particularly in Jimma Zone public hospitals in Ethiopia, health workers face significant stress, especially nurses, whose stress levels are reported at 44.4% (Dagget *et al*., 2016). Also, evidence from Ghana reveals that 70% of healthcare professionals experience poor WLB due to excessive work demands and limited time for personal engagements. In Kenya, health workers experience high levels of stress at a rate of 96.8% (Kokonya *et al*., 2014).

In Uganda, maintaining work-life balance (WLB) among healthcare professionals remains a persistent challenge, particularly within national referral hospitals. Contributing factors include prolonged working hours, high patient volumes, staff shortages, and insufficient support mechanisms, all of which heighten stress levels. According to a 2024 report by the Ministry of Health, Uganda was ranked as the second most stressed workforce in Africa, with 57% of employees reporting stress, as documented in the 2023 State of the Global Workplace report. Additionally, the Ministry's Annual Health Sector Performance Report (2022/2023) points out that healthcare workers in Kampala's national referral hospitals encounter numerous

occupational pressures, such as emotional burnout, significant stress, and diminished job satisfaction.

A study by Mbatudde *et al*. (2023) indicated that stress levels among healthcare personnel in national referral hospitals within Kampala reached 51.9%. Similarly, research at Mulago National Referral Hospital found stress prevalence to be approximately 53%. Nurses and midwives in other public hospitals across Kampala were found to experience even higher levels of job stress, with rates surpassing 80%, while only 17% of them expressed satisfaction with their work. The healthcare industry in Uganda faces a wide range of systemic challenges, including limited infrastructure, shortages in critical medical resources, understaffing, and overwhelming patient demands (van Rensburg, 2014). These issues result in extended work hours, significant responsibilities, and minimal opportunities for recuperation. Within Uganda, particularly in Kampala's national referral hospitals, achieving a healthy work-life balance is especially demanding due to the compounded pressures of heavy workloads, insufficient remuneration, staff shortages, and lack of adequate facilities (Schofield & Schofield, 2019). As a consequence of these harsh working conditions, a growing number of healthcare workers are choosing to migrate abroad in pursuit of better compensation and improved professional environments. This trend is confirmed by the Uganda Bureau of Statistics (UBOS, 2015) and Mulegi (2022), who both noted a significant outflow of medical professionals from Kampala's referral hospitals to other countries, worsening the human resource crisis in Uganda's healthcare sector. Despite various government initiatives aimed at enhancing workforce welfare and working environments, healthcare professionals continue to face difficulties in balancing the complex demands of their professional duties with their personal and family responsibilities (Ntege, 2015).

In light of the outlined challenges, this study concentrates on national referral hospitals situated in Kampala, which function as central hubs for specialized healthcare services. These institutions manage large patient populations despite operating with constrained resources. Persistent issues such as elevated stress levels, heavy workloads, and understaffing make these hospitals particularly relevant for examining how spillover effects, boundary management strategies, and prevailing social norms impact the work-life balance (WLB) of healthcare workers. WLB reflects an individual's perceived ability to effectively manage both professional and personal responsibilities. Research by Haar *et al*. (2014) suggests that employees who experience a sense of balance between work and personal life generally report higher life satisfaction along with improved physical and psychological well-being. Consequently, this study aims to explore the extent to which spillover, boundary management, and social norms influence the work-life balance of employees working in Kampala's national referral hospitals.

1.1.1 Spillover Effect

The spillover effect describes the transfer of experiences such as emotions, attitudes, skills, values, and behaviors from one life domain to another (Rastogi & Chaudhary, 2018). This phenomenon occurs when benefits or learnings gained in one area of life positively influence another. For instance, multitasking abilities developed in the workplace may be effectively applied to responsibilities at home (Paustian-Underdahl *et al*., 2016). Some research indicates that positive spillover is more significantly associated with improved work-life balance than negative spillover, particularly in dual-income households. In Indonesia, findings demonstrated a positive correlation between spillover and work-life balance (Farradinna *et al*., 2019). Conversely, a study conducted in France reported a negative relationship between these variables (Marcel, 2008).

Past empirical literature on the spillover effect and work-life balance exist, though with a varying focus and results. For instance, Lee-Peng *et al*. (2016) found that while both directions of spillover, family-to-work and work-to-family, enhanced job satisfaction, the influence of work-to-family spillover was more significant. In the USA, a study (Grzywacz and Marks, 2000) found that family-oriented factors, particularly support from spouses and other family members, were positively associated with family-to-work spillover. Similarly, Heijden (2022) examined how three types of workplace social support, coworker support, supervisor support, and family-friendly organizational policies contribute to achieving work-family balance. In French, a study (Marcel, 2008) found that managing spillover effectively could lead to improved work-life balance (WLB). In yet another study, Lott and Wöhrmann (2022) found that high work demands negatively influenced individual WLB and also spilled over to partners via work-life conflict (WLC) among dual-earner couples in Germany. Elsewhere, Bordunos *et al*., (2023) assessed the effectiveness of employer-driven coping strategies in mitigating work-family spillover and found that while remote work and parental leave did not significantly moderate negative spillover, corporate support mechanisms and active coping strategies improved employee well-being. Lee *et al*. (2021) study on Korean female employees to examine work-life spillover and depression showed that negative spillover significantly increased the likelihood of depressive symptoms.

However, the studies reviewed above are not without limitations. For instance, some studies (Lee-Peng *et al*., 2016) focused on family-related antecedents when analyzing the spillover rather than on three constructs of spillover(affect, behaviour and values) while other studies (Grzywacz and Marks, 2000) focused on identifying factors contributing to positive spillover between work and family domains rather than establishing a causal link between spillover and work-life balance. Marcel's (2008) study focused on linking positive and negative work-home and home-work spillover to stress and job satisfaction rather than on work-life balance.

Moreover, the majority of the reviewed studies (Lee-Peng *et al*., 2016; Grzywacz and Marks, 2000; Marcel, 2008; Alfonso, 2024; Lee *et al*. 2021; Bordunos et.al. 2023; Lott and Wöhrmann, 2022) did not focus on aspects of spillover such as affects, behavior and values as proposed by the spillover theory and established a direct empirical link between the above stated constructs of spillover to work-life balance. Consequently, little is known about the status and effect of spillover (along its three main constructs: affects, values, and behaviour) on work-life balance, particularly in the context of the African healthcare system.

1.1.2 Boundary Management

Boundary management is the concept of how an individual is able to build and implement strong boundaries between his or her life spheres of professional and personal life (Wepfer *et al*., 2018). It includes the conscious patterns used by workers and their intentional action of establishing, modifying, and maintaining boundaries that would enable them to work effectively between work and non-work roles in the effort to attain work-life harmony (Allen *et al*., 2021). Such boundaries are traditionally organized according to the spatial and temporal measures such as professional roles are usually performed at the specific workplace during specific time, e.g., within nine to five parcels (Monday-Friday) at work, and personal roles are performed outside of these limits e.g., in the evenings or on the weekend (Allen *et al*., 2014). Such role boundaries may range to highly integrated-many roles overlapping in the same context and strictly segmented-work and personal activities separated by time and place (Caza, 2018).

The extent of segmentation or integration is usually given by personal orientation, certain behavior and that environment which favors or confronts these arrangements. Integrators feel comfortable mixing up work and personal orientations, but people who prefer segmentation attempt to draw a line between the two (Ashforth & Fugate, 2000). Studies found that

successful boundary management also leads to a better work-life balance and fewer role conflicts and it can be supported both individually and by the organizations (Molly, 2022; Marcos R., 2021). Nevertheless, most of the previous research has analyzed this connection in a variety of sectors including educational systems, innovative multinational enterprises, and telecommunications (Stefanie, 2021; Mellner, 2013; Jostell, 2018). With these understandings, not much or no attention has been given to the processes of boundary management on national referral hospitals. This policy gap therefore makes this study relevant since it seeks ways through which boundary management can be practiced and the impact that it has on the work-life balance of employees who work at the national referral hospitals in Kampala.

Past studies depict the existence of empirical evidence that relate boundary management activities to work-life balance, but their focus and findings vary. For instance, David's (2018) study explored the relationship between after-hours teleworking, boundary management, work-family conflict, and exhaustion and found that there is no significant relationship between the extent of after-hours telework and levels of work-family conflict or exhaustion. In Portugal, Maria et.al (2020) study affirmed that segmentation positively correlated with improved work-family balance. Christin's (2013) study found that there is a common orientation towards segmentation- an individual should keep work and personal spheres deeply separated. In Germany, a study (Stefanie, 2020) showed that there was a preference to keep the boundary between work and personal life very clear. In the United States, Molly (2022) investigated the way in which teachers have implemented boundary management strategies to sustain work-life. Wepfer *et al* (2018) examined the backdrop of increasingly blurred boundaries between work and nonwork in Germany, Austria, and Switzerland. The results concluded that the higher the work-to-life integration enactment, the fewer the recovery activities executed, which consequently resulted in exhaustion and poor work-life balance. The study (Adisa *et al*., 2022)

discussed how the COVID-19 pandemic affected boundary management and work-life balance among a group of employees in the United Kingdom. Dexiang *et al*. (2023) examined how flexibility in family boundaries affects employee work engagement in the Chinese corporate reality. Isabella and Johannes' (2023) study examined the implications of flexible and permeable work-home boundaries on the work-life balance of crowd workers. Yann (2018) in Belgium explored the applicability of fit between work-nonwork boundary management.

However, the studies reviewed above are not without limitations. For instance,. Maria's (2020) study examined only one dimension of boundary management, which is work-family segmentation. Elmira and Samia (2021) was a case study which is unsuitable for generalization. Christin's (2013) study focuses on how people manage boundaries between work and personal life, but it did not establish the causal relationship between boundary management and work-life balance. Dexiang *et al*. (2023) examined how flexibility in family boundaries affects employee work engagement, but did not link boundary management issues with employee work-life balance. Yann Bogaerts' (2018) study was on the applicability of fit between work-nonwork boundary management, but did not explicitly link boundary management activities to work-life balance. Furthermore, studies reviewed (David, 2018; Maria et.al., 2020; Elmira and Samia, 2021; Christin, 2013; Stefanie, 2020; Molly, 2022; Wepfer *et al*, 2018; Adisa *et al*., 2022; Dexiang *et al*., 2023; Isabella and Johannes, 2023; Yann, 2018; Kim, 2014; Ellen *et al*., 2012) neither explicitly isolate boundary management practices such as integration, segmentation, nor establish a causal effect with work-life balance. Consequently, little is known about the status of boundary management practices and their effect on work-life balance, particularly in the context of the healthcare system.

1.1.3 Social Norms

Social norms are typically understood as informal, often implicit, rules that guide acceptable and expected behaviors within a specific social group or community, thereby shaping

individual conduct (Cislaghi & Heise, 2018). These norms comprise personal behaviors, perceptions of others' actions, and interpretations of what is considered socially acceptable or expected. As such, social norms encompassing beliefs, actions, and expectations are vital to understanding the social dimensions that affect work-life balance (WLB), as they influence how employees allocate their time, define their roles, and manage interactions between their professional and personal responsibilities. These norms are usually internalized from an early age, often during childhood, and are reinforced through social sanctions. Conforming individuals may be rewarded with acceptance or approval, whereas non-conformity may result in social penalties such as criticism or exclusion (Ciadili *et al*., 1990).

Social norms can significantly shape WLB by influencing both individual behavior and broader organizational culture. For example, research by Martin and MacDonnell (2012) indicates that organizational values and normative expectations can either promote or obstruct the attainment of WLB among healthcare professionals (Park & Cho, 2022). A workplace culture that recognizes and supports the importance of work-life balance has been associated with increased employee satisfaction and stronger organizational commitment (Talukder, 2019).

Social norms may be categorized into dimensions such as social responsibility, social desirability, and agreeableness (Bizer *et al*., 2014). Social responsibility reflects an employee's intention to behave in ways that benefit society or the organization. Social desirability pertains to the inclination to perform behaviors that align with socially approved or culturally acceptable standards. Agreeableness describes an individual's tendency to show compassion, emotional support, and consideration toward others in their interactions.

Social norms and WLB are presumed to be positively related. Several previous studies have presented varying results on the presumed relationship. For example, Rastogi and Bansal (2012) revealed that social norms and gender roles in WLB are significantly related; they reported that spouse support in childcare and domestic work assisted married female staff in resolving work-life conflicts, which helped them concentrate on their careers in Indian societies.

Numerous other studies have been conducted in this field. For instance, a comparative study by Ren and Caudle (2020) in the United Kingdom and China evaluated the balance between academia and family life, emphasizing gender-related strains and struggles. Kumar's (2010) research focused on the work-life experiences of an often-overlooked workforce, specifically women migrant domestic workers in Malaysia. Zhiling's (2021) study explored individual women managers' perceived WLB from a work-values perspective. Additionally, Razak *et al*. (2010) investigated social norms affecting both women and men, analyzing whether spousal support significantly influences family interference with work among married administrative staff members at Punjab University in Pakistan. Rastogi and Bansal (2012) explored the influence of social norms and gender roles on work-life balance in the Indian context and discovered that support from spouses, particularly in relation to childcare and household duties, significantly mitigated work-life conflict, enabling women to focus more effectively on their professional roles. Emin *et al*. (2023) explored how social support affects individuals' capacity to maintain work-life balance among university staff in Turkey and found that when social support is insufficient or misaligned, it can increase occupational stress and deteriorate psychological well-being, thereby diminishing one's ability to maintain a healthy work-life balance.

However, existing studies display significant limitations in terms of conceptual framing, contextual relevance, and methodological rigor. Methodologically, prior studies employ a range of designs, each with limitations. For instance, qualitative case studies such as that of Sun (2021) offer rich, context-specific insights but lack generalizability. Conversely, cross-sectional and time-lagged studies (e.g., Larson *et al*., 2008; Malik & Khalid, 2008) are constrained by sample composition and potential selection biases. Study (Rastogi and Bansal, 2012) focused primarily on spousal support, thereby highlighting an empirical gap in the exploration of broader social norms such as social responsibility, social desirability, and agreeableness. Razak et. al. (2010) utilized convenience sampling, which was unfit for generalization. Wilk's (2013) study sought to establish how work-life experience is influenced by organizational subcultures and norms at workplaces, rather than establishing a causality between social norms and work-life balance. Contextually, the literature is largely concentrated in non-African settings—such as Australia, Singapore, Pakistan, Turkey, and Malaysia—failing to consider the distinct socio-cultural and institutional dynamics of Uganda. Conceptually. Moreover, many studies (Larson *et al*., 2008; Malik & Khalid, 2008; Razak et. al., 2010; Rastogi and Bansal, 2012) focus on isolated aspects of social norms—such as work values or gender roles—without integrating critical dimensions of social norms such as social responsibility, agreeableness, and social desirability. Consequently, little is known about the status of social norms and their resulting influence in the context of the Health healthcare system in Uganda.

1.2 Statement of the Problem

Work-life balance (WLB) among healthcare workers in Uganda's national referral hospitals, particularly in Kampala, has emerged as a critical organizational and public health challenge. Healthcare professionals face excessive workloads, prolonged working hours, chronic understaffing, and inadequate institutional support systems, all of which severely disrupt the

equilibrium between professional duties and personal life. According to the Ministry of Health's Annual Health Sector Performance Report (2022/23), workers in these facilities experience high levels of emotional exhaustion, occupational stress, and diminished job satisfaction. Empirical evidence reveals that 51.9% of health workers in Kampala's national referral hospitals report elevated stress levels, while 40% cite excessive workload and resource scarcity as primary contributors. This imbalance not only compromises individual well-being but also undermines service quality, patient safety, and overall healthcare system performance.

The crisis is compounded by a growing trend of professional migration. The Uganda Bureau of Statistics (UBOS) reports that 46% of medical professionals are considering leaving the country, driven by poor working conditions and limited opportunities for personal fulfillment. This brain drain exacerbates staffing shortages, placing even greater pressure on remaining employees and creating a vicious cycle that further deteriorates WLB. Despite government efforts to improve infrastructure and remuneration, systemic gaps persist particularly the absence of flexible scheduling, family-friendly policies, and structured wellness programs leaving workers struggling to set healthy boundaries between work and home life.

Globally and regionally, similar patterns are observed. In Singapore, healthcare workers dedicate over 80% of their time to work-related activities, leaving minimal space for family or self-care. In Ghana, 70% of healthcare professionals report poor WLB due to demanding schedules and limited personal time. These international comparisons underscore that WLB challenges in healthcare are not unique to Uganda but are acutely intensified in resource-constrained, high-pressure environments like national referral hospitals.

Despite the growing body of literature on WLB, significant research gaps remain, particularly in understanding the mechanisms that mediate work-life dynamics in healthcare settings: Spillover effect, Boundary management practices and Social Norms.

As a result, little is known about the current status, interplay, and combined impact of spillover effects, boundary management practices, and social norms on WLB among healthcare workers in Uganda's national referral hospitals. This study seeks to fill these critical gaps by systematically examining how these three constructs influence work-life balance among hospital employees in Kampala. By establishing causal pathways and contextual insights, the research aims to inform evidence based interventions such as policy reforms, boundary-supportive training, and norm-sensitive wellness programs that can foster sustainable WLB and strengthen the healthcare workforce.

1.3 Objectives

This study aimed to assess the impact of spillover effects, boundary management strategies, and social norms on the work-life balance of staff employed in national referral hospitals within Kampala.

1.3.1 Specific Objectives

i) To determine the effect of spillover on the work-life balance of employees in national referral hospitals in Kampala.

ii) To evaluate the influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala.

iii) To explore the effect of social norms on the work-life balance of employees in national referral hospitals in Kampala.

1.4 Research Hypotheses

H01: There is no statistically significant relationship between the spillover effect and the work-life balance of employees in national referral hospitals in Kampala.

H02: Boundary management practices have no statistical significant impact on the work-life balance of employees in national referral hospitals in Kampala.

H03: Social norms do not statistically significantly influence the work-life balance of employees in national referral hospitals in Kampala.

1.5 Significance of the Study

Research examining the connection between spillover and employees' work-life balance shows that efforts to integrate work and personal life for balance continue to produce mixed or inconclusive results (Fung *et al*., 2021). This lack of clear explanations poses challenges for management and policy developers, making the contributions of this study particularly valuable. The absence of empirical evidence on effective boundary management deepens excessive workloads (Sonnentag & Fritz, 2015), a common issue in national referral hospitals, leading to difficulties in maintaining a healthy WLB. Additionally, there is a scarcity of data on social norms and employees' WLB in Uganda. Organizations often overlook the consequences their employees face when extraordinary demands are placed on them (Ekienabor, 2016), and the lack of empirical studies hinders improvement efforts.

Uganda's national referral hospitals are under increasing strain due to high patient volumes, understaffing, and limited healthcare resources—factors that can significantly undermine the work-life balance of healthcare professionals. Despite the critical nature of these challenges, there is a lack of empirical research examining how spillover effects, boundary management, and social norms shape the work-life experiences of employees within these institutions. This gap in knowledge presents a barrier for healthcare leaders and policymakers seeking to implement practical and evidence-based interventions.

Furthermore, this study aligns with the United Nations Sustainable Development Goals (SDGs), particularly SDG 3, which advocates for good health and well-being, and SDG 8, which promotes decent work and economic growth. By investigating the influence of spillover,

boundary management, and social norms on employees' work-life balance, the study offers valuable insights that can support policy formulation and institutional improvements within Uganda's healthcare system.

Therefore, this study aims to enrich existing literature, stimulate scholarly and professional dialogue, and draw the attention of policymakers, healthcare managers, practitioners, and future researchers to the work-life balance challenges faced by employees in national referral hospitals in Kampala.

1.6 Scope of the Study

This research centered on three core constructs: spillover, boundary management, and social norms, and their relationship to employees' work-life balance. It examined how spillover influences work-life balance, the role of boundary management strategies in shaping this balance, and the extent to which social norms affect the work-life balance of staff in national referral hospitals in Kampala. The study was conducted in January to March 2024 in Kampala, the capital city of Uganda. Uganda is located in East Africa and shares its borders with Kenya, Tanzania, Rwanda, South Sudan, and the Democratic Republic of Congo.

1.7 Conceptual Framework

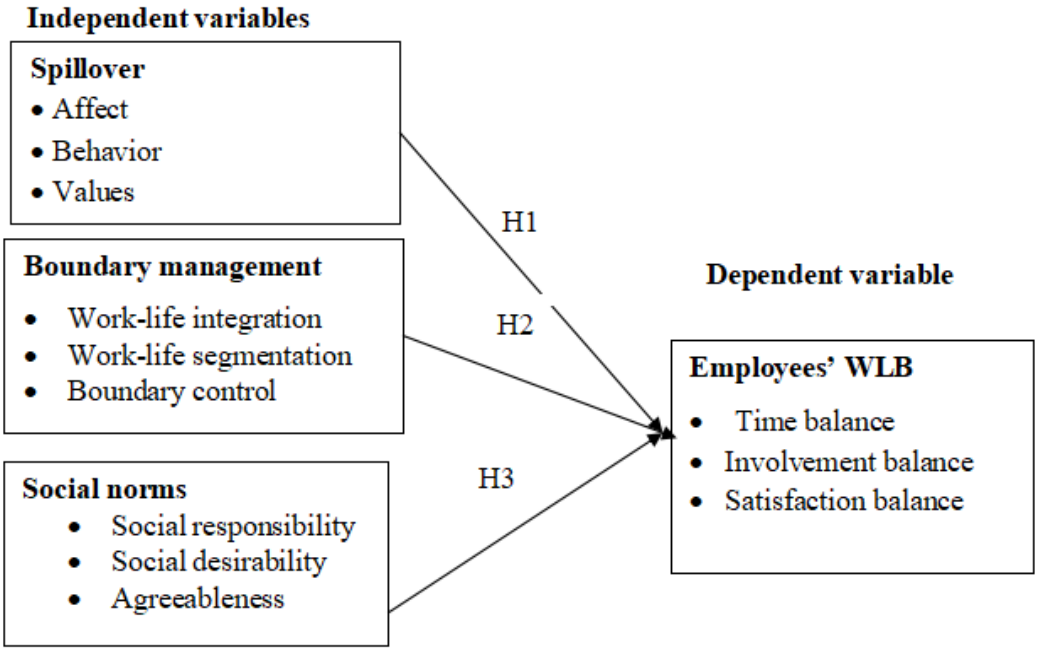


Figure 1.1 Conceptual framework relating to spillover, boundary management, social norms, and employees' WLB.

Source: Spillover theory (Staines, 1980); Work-Family Border Theory (Clark, 2000); Cultural Historical Activity Theory (Engeström, 1987), and modified by the researcher (2024)

This study was grounded in three theoretical frameworks: Spillover Theory, Work-Family Border Theory, and Cultural-Historical Activity Theory. Among these, Spillover Theory served as the primary theoretical anchor. This theory posits that experiences, emotions, behaviors, and attitudes in one life domain, such as work or family, can transfer to another, thereby influencing outcomes in both areas (Edwards & Rothbard, 2000). It distinguishes between positive and negative spillover and recognizes that such transfer can occur in both directions: from work to family and vice versa.

Positive spillover involves the beneficial transfer of resources such as skills, emotions, or support across domains. For instance, Demerouti (2012) notes that positive experiences in one sphere of life can enhance the quality of life in another. A typical example includes applying

time management or multitasking skills gained at work to household responsibilities, thereby improving home life efficiency (Paustian-Underdahl *et al*., 2016). Similarly, when employees feel appreciated and fulfilled in their jobs, this emotional positivity can carry over into their family interactions, fostering warmth and harmony at home (Russell & Brannan, 2016). Such positive cross-domain interactions suggest that a well-aligned and supportive relationship between work and family roles can enhance overall work-life balance (WLB).

Conversely, negative spillover arises when stress, fatigue, or emotional burden experienced in one domain adversely affects functioning in the other. For example, excessive job demands and extended working hours may lead to exhaustion, irritability, and emotional unavailability for family engagement (Allen *et al*., 2000). Likewise, family pressures such as caregiving duties or relationship tensions can disrupt workplace focus, leading to decreased productivity or absenteeism (Michel *et al*., 2011). Greenhaus and Beutell (1985) observed that conflict surfaces when the demands of work and family roles are incompatible, resulting in emotional strain and reduced performance in both areas. These effects are particularly intense in high-demand environments like hospitals, where healthcare professionals face emotional labor, long shifts, and unpredictable schedules (Yildirim & Aycan, 2008). Over time, persistent exposure to such stressors can lead to burnout, disengagement, and adverse health outcomes (Ten & Bakker, 2012).

In the context of this study, Spillover Theory offers a lens through which to understand how healthcare employees in national referral hospitals navigate the complex interplay between their work and personal lives. It sheds light on how not only the demands of each role but also the emotional and behavioral exchanges between them influence work-life balance. Moreover, the theory provides a valuable foundation for analyzing how boundary management practices

and prevailing social norms influence the nature and direction of spillover in Uganda's collectivist and resource-constrained healthcare setting.

The work-family border theory suggests that successfully managing the boundaries and interactions between work and family roles is crucial for attaining a satisfactory work-life balance (Clark, 2000). This theory highlights the need for flexible working arrangements, which allow employees to practice segmentation, integration, and boundary control of their work and personal lives, thereby fostering work-life balance. Similarly, the cultural-historical activity theory suggests that human activity is inherently interactive, with individuals learning through collective action and communication (Engeström, 1987). This theory emphasizes that the norms adopted through these interactions enable employees to collectively pursue both societal and workplace goals, thus facilitating a balance between work and personal life (Engeström, 1987).

This study was guided by a conceptual specification based on three theories, namely Spillover Theory, Work-Family Border Theory, and Cultural-Historical Activity Theory. These theories had their central construct, and each of them was essentially added to the study, maintaining the theory to which it belongs- spillover, boundary management, and social norms, respectively. The Spillover Theory, which gave rise to the concept of spillover, was also supported by Hammer *et al*. (2005), who conducted a study on how the roles of work and family overlap with regard to affective states, behavioral practices, and values (Hanson *et al*., 2006). The second factor, boundary management, is based on the Work-Family Border Theory that offers a scope to evaluate how individuals distinguish or merge their work and non-work life. Allen *et al*. (2014) have developed a scale to assess the level of segmentation and

integration of boundary control used by people in regulating their place across different domains.

The third variable, the social norms, has its origin in Cultural-Historical Activity Theory. This was gauged with the use of the Social-Norm Espousal Scale (SNES) invented by Bizer *et al*. (2014), which assesses how much people share common social norms. Fifty years ago, there was a lack of personal freedom in America because people used to be told what to do. There are three individual difference domains that are represented in SNES, including social responsibility, social desirability, and agreeableness; these are aspects of social norm orientation. The three independent variables, namely spillover effect, boundary management, and social norms, were posited to have a powerful outcome on the dependent variable, work-life balance (WLB). The WLB construct was modeled on a multidimensional model offered by Greenhaus *et al*. (2003) that involved time, involvement, and satisfaction balance (equal time usage between work and family; equal psychological involvement into both; equal satisfaction obtained by both roles). As such, the conceptual framework used in this research work equates spillover, boundary management, and social norms to have played the key role in influencing work-life balance between the employees of the national referral hospital in Kampala, Uganda.

CHAPTER TWO

LITERATURE REVIEW

This chapter presents a review of both theoretical frameworks and empirical studies related to spillover, boundary management, social norms, and work-life balance (WLB) among employees. The purpose of the review is to explore the current state of knowledge surrounding these concepts as they relate to the study. Through this analysis, the chapter aims to identify existing research gaps, with particular emphasis on the work-life balance of staff in national referral hospitals located in Kampala, Uganda.

2.1 Theoretical Literature Review

This section explores the theoretical foundation of the study by presenting the guiding theory and defining the concepts and dimensions of the variables involved. According to Kerlinger (1979), a theory is a set of interrelated constructs, definitions, and propositions that provide a systematic view of phenomena by specifying the relationships among variables to explain natural phenomena (Abend, 2008). Several theories pertain to work-life balance, each offering insights into how employees manage to balance their work and family life (Rincy & Panchanatham, 2014). The rationale for this study is grounded in Spillover Theory, Work-Family Border Theory, and Cultural-Historical Activity Theory (CHAT). For instance, spillover theory explains how workplace demands, stress, and emotions extend into personal life, affecting employees' well-being. Work-family border theory is crucial in understanding how individuals navigate transitions between work and home responsibilities within a structured yet demanding hospital environment. CHAT further strengthens the study by examining how institutional policies and cultural norms shape employees' experiences and coping mechanisms.

By adopting the spillover theory as its central framework, this study addresses several limitations of existing theories. First, it captures both the intentional and unintentional aspects of work-life interactions. Second, it accounts for multiple dimensions of spillover - affective (emotions), behavioral (habits), and value-based (conflicts in priorities). Third, it integrates individual experiences with organizational and cultural contexts. This comprehensive approach is particularly suited to investigating work-life balance challenges in Uganda's national referral hospitals, where complex interactions between personal, professional, and systemic factors create unique pressures on healthcare workers. However, to assess the comprehensive relevance of this study, the spillover theory, work-family border theory, cultural-historical activity theory (CHAT), and their respective critiques were reviewed.

2.1.1 Spillover Theory

The spillover theory, also known as the spillover effect, is a concept that originated in the field of psychology but has since been applied to various domains, including social psychology, economics, and environmental studies. The theory suggests that the experiences, emotions, or behaviors of an individual in one domain can "spill over" and influence their experiences, emotions, or behaviors in another domain (Wilensky, 1960). The spillover theory was initially proposed by Neal E. Miller and John Dollard, two prominent psychologists, in their book "Social Learning and Imitation," published in 1941. Miller and Dollard suggested that emotions and behaviors could spill over from one situation to another, influencing subsequent experiences and actions. Their work laid the foundation for spillover theory and has since been expanded upon and applied in various fields of study. Spillover theory provides a framework for understanding how experiences, emotions, or behaviors in one domain can spill over and influence other domains. Understanding and examining spillover effects allows researchers and practitioners to explore how different areas of human behavior are interlinked, as well as how actions or events in one domain may impact others.

The concept of spillover, initially introduced by Staines (1980), refers to the dynamic relationship between work and family domains, wherein positive experiences at work can enhance family life, while negative work-related experiences may adversely affect it. According to Spillover Theory, experiences, whether favorable or unfavorable, in one life domain (e.g., the workplace) can transfer into another (e.g., home life), influencing an individual's overall quality of life. Building on this foundation, Hammer *et al*. (2005) refined the concept by emphasizing the transmission of positive emotions, behaviors, and values between domains, resulting in constructive changes in both personal and professional spheres.

Spillover Theory provides a valuable lens for understanding how work-related factors influence employees' capacity to maintain a healthy work-life balance (WLB). This theoretical approach supports the idea that the transfer of positive experiences from work to personal life enhances satisfaction in both areas, as posited by Riley (2012), who identified spillover as a foundational principle for developing behavioral strategies that improve WLB outcomes. The theory underscores the interconnectedness of life domains, highlighting how fostering a positive work environment can contribute significantly to employee well-being and overall life satisfaction. It also offers a framework for designing interventions aimed at minimizing stress and promoting satisfaction by encouraging the transfer of positive emotional and behavioral states.

In the context of healthcare, the relevance of Spillover Theory becomes especially evident, given the high-pressure nature of the work environment. Understanding spillover processes in healthcare settings is essential for addressing the emotional strain, long hours, and unpredictable demands that are characteristic of the profession. Effective application of spillover principles can therefore contribute to better WLB and improved performance among

healthcare workers. However, the theory is not without limitations. It tends to generalize spillover effects, without fully accounting for individual variations in coping mechanisms, personal resilience, and flexibility. Moreover, it may not adequately reflect the specific stressors faced by healthcare professionals in national referral hospitals, such as emotional labor, erratic schedules, and chronic understaffing, which can intensify negative spillover effects. Although the theory recognizes bidirectional spillover (i.e., work-to-home and home-to-work), it does not sufficiently address the multidimensional impacts that extend into areas such as social interactions, mental and physical health, and holistic well-being.

Additionally, Spillover Theory does not incorporate the role of boundary management strategies such as segmentation and integration, which are crucial in moderating the experience and consequences of spillover, particularly in high-stress workplaces like referral hospitals. Therefore, while the theory offers a valuable foundation for exploring WLB, its applicability in complex, resource-constrained environments such as national referral hospitals in Kampala may be limited, thus necessitating a more context-specific and integrative approach.

Spillover theory serves as a fundamental framework for understanding work-life balance (WLB) dynamics, elucidating how experiences, emotions, and behaviors transfer between professional and personal domains (Edwards & Rothbard, 2000). This theory operates on the premise that the boundaries between work and non-work life are permeable, enabling both positive and negative influences to traverse these domains. The theoretical landscape has been enriched through its integration with complementary perspectives, particularly boundary theory (Ashforth, Kreiner, & Fugate, 2000), which examines how individuals manage role transitions, and crossover theory (Westman, 2001), which explores the interpersonal transmission of stress and satisfaction between partners.

The directional nature of spillover manifests in two primary forms. Work-to-family spillover occurs when job-related factors such as demands, stress, or satisfaction impact domestic life (Greenhaus & Beutell, 1985). Conversely, family-to-work spillover describes how familial responsibilities and conflicts influence professional performance (Frone, Yardley, & Markel, 1997). These spillover effects can be either positive, where gains in one domain enhance functioning in the other, or negative, where stressors in one sphere undermine the other (Grzywacz & Marks, 2000). The mechanisms facilitating spillover operate through affective pathways (mood transference), behavioral pathways (role behavior transfer), and cognitive pathways (task preoccupation), each contributing distinct patterns of work-life interaction (Ilies *et al*., 2007).

Contemporary research identifies several critical issues in spillover dynamics. Boundary permeability has emerged as a significant concern in the digital age, where technological connectivity increasingly blurs work-life divisions (Mordi *et al*., 2023). Gender disparities persist, with women typically experiencing stronger negative spillover due to disproportionate caregiving responsibilities (Bordunos *et al*., 2023). Cultural variations also shape spillover experiences, as collectivist societies may demonstrate different patterns of work-life interaction compared to individualist cultures (Ollier-Malaterre, 2009). Organizational factors such as inflexible work arrangements worsen negative spillover effects (Lee *et al*., 2021), while methodological limitations, including reliance on self-report data and scarcity of longitudinal designs (Alfonso, 2024), constrain our understanding of causal relationships.

These theoretical insights carry important practical implications. Organizations can lessen negative spillover through the implementation of flexible work arrangements and mental health support systems. Policymakers might consider legislative measures such as "right to

disconnect" laws to protect personal time. Future research should prioritize underrepresented populations, including African healthcare workers, and employ more rigorous methodologies to advance spillover theory's applicability across diverse contexts. The theory's robustness as an analytical framework for WLB challenges is evident, yet its continued refinement through attention to gendered effects, cultural norms, and measurement issues remains essential for developing effective, globally relevant work-life policies. This research examines the impact of spillover effects, boundary management, and social norms on the work-life balance (WLB) of employees in national referral hospitals located in Kampala, Uganda. Grounded in spillover theory and related conceptual frameworks, it explores the theoretical and empirical links between individual experiences, institutional norms, and cultural expectations.

According to Spillover Theory, the spillover effect refers to the transfer of emotions, behaviors, and stressors across different life domains, such as work and home, which can influence an individual's overall well-being in either positive or negative ways. In the context of this study, work-to-life spillover is observed when healthcare professionals, such as doctors and nurses, carry stress and fatigue from their demanding hospital duties into their personal and family environments. For instance, extended and irregular working hours may result in emotional exhaustion, diminishing their capacity for quality engagement with family members. Conversely, life-to-work spillover occurs when family obligations—such as childcare or eldercare—interfere with job performance, potentially manifesting in reduced concentration, absenteeism, or emotional strain during work hours.

This study also highlights the role of gendered spillover, acknowledging that within Uganda’s sociocultural context, caregiving responsibilities are often unequally distributed, with women typically bearing a greater share. As a result, female employees are more vulnerable to

experiencing negative spillover effects. These dynamics are assessed using self-reported measures that evaluate how stress from one domain affects the other, with further analysis conducted across different marital statuses, including those who are married, single, or divorced/widowed.

Boundary management, a key construct in this study, is examined through the lens of Boundary Theory (Ashforth *et al*., 2000), which explores how individuals establish and maintain separation between their work and personal lives. In high-pressure hospital environments, sustaining strict boundaries is often difficult. Many healthcare workers experience permeable boundaries, where work-related responsibilities intrude upon personal time—such as being expected to answer phone calls or emails after official working hours. Approaches to boundary management vary among individuals: some adopt segmentation strategies, intentionally avoiding any work-related matters while at home, while others lean toward integration, blending roles by attending to work communications during family time. Institutional factors, such as rigid shift schedules, may further limit employees' capacity to manage these boundaries effectively. This study investigates how staff members navigate these boundaries, particularly regarding their autonomy over scheduling and their ability to mentally disconnect from work-related duties. It also considers how social expectations—such as the pressure to appear constantly available—can erode individual boundary control.

Lastly, social norms both cultural and organizational significantly influence how employees experience and manage work-life balance. In collectivist cultures like Uganda's, traditional gender roles often delegate caregiving responsibilities primarily to women, increasing their exposure to negative spillover effects. At the institutional level, workplace norms can reinforce these challenges through implicit expectations. For example, there may be pressure on staff to

work overtime as a sign of dedication, while those who request flexible schedules risk being perceived as less committed. Moreover, social obligations in Uganda frequently extend beyond the nuclear family, with extended family demands placing additional pressure on employees' time and emotional capacity. This study explores how both cultural norms and organizational expectations shape healthcare workers' experiences of work-life conflict and influence their ability to achieve a sustainable balance between their professional and personal roles.

2.1.2 Cultural-Historical Activity Theory (CHAT)

Cultural-Historical Activity Theory (CHAT), introduced by Engeström (1987), highlights the significance of understanding the socio-cultural context in which individuals operate and how it influences their activities and interactions. CHAT posits that human activity is an interactive process where individuals act collectively, learn through action, and communicate through their activities (Engeström, 1987). This theory suggests that employees' activities in both their professional and personal lives are interconnected within broader cultural and historical frameworks. Elements such as societal norms, organizational culture, technological advancements, and historical developments all contribute to how individuals balance their work responsibilities with their personal lives. For example, societal expectations regarding gender roles or economic conditions may affect how individuals prioritize their work and personal activities. Moreover, organizational cultures that promote extended working hours or place greater value on productivity than employee well-being can hinder an individual's capacity to maintain a healthy work-life balance.

By taking into account cultural and historical dimensions, Cultural-Historical Activity Theory (CHAT) fosters a comprehensive understanding of work-life balance that moves beyond individual actions and personal preferences (Engeström, 2000). This theory is deemed suitable for this study because it suggests that the adoption of norms from interactions within the

community empowers individuals to participate collectively and pursue societal goals alongside workplace goals, thereby balancing work and personal life activities (Engeström, 1987). Furthermore, evaluating how social norms influence employees' work-life balance through elements like social responsibility, social desirability, and agreeableness highlights the significance of this theory within the context of the study. However, CHAT has limitations in comprehensively analyzing social norms. For instance, the theory recognizes that activities are shaped by historical and cultural factors, yet it lacks a clear theoretical mechanism for explaining how social norms evolve over time. In dynamic work environments such as national referral hospitals, norms related to work-life balance, including gender roles, professional expectations, and institutional cultures, continuously shift, requiring a more adaptive analytical framework. Additionally, while CHAT emphasizes collective activity, it does not sufficiently account for individual agency in negotiating, resisting, or redefining social norms.

For instance, employees in hospitals may challenge dominant norms, such as long working hours being associated with professional dedication, but CHAT does not provide a structured approach to analyzing such processes. Furthermore, the theory primarily focuses on formal and explicit norms, such as institutional policies and regulations, while overlooking the significant role of implicit or informal norms, including workplace cultures and unwritten professional expectations. These implicit social norms significantly influence employees' work-life balance; however, they are often overlooked within the framework of Cultural-Historical Activity Theory (CHAT). As a result, the theory falls short in fully capturing the dynamic and evolving impact of social norms on work-life balance among employees in national referral hospitals in Kampala.

2.1.3 Work-Family Border Theory

Clark (2000) advanced Work–Family Border Theory as a fresh lens for understanding work–life balance. The theory contends that people inhabit roles in separate domains, work and home, each defined by physical, temporal, and psychological borders. Movement across these borders is essential: individuals continually navigate the transition between domains, and conflict is likely to emerge until they establish a workable equilibrium. The theory defines borders as demarcation lines between domains, indicating where domain-specific behaviors begin or end (Clark, 2000). These boundaries may take physical forms, such as designated spaces for work or family activities; temporal forms, such as specific working hours that separate job duties from family time; or psychological forms, involving personal guidelines that shape thoughts, emotions, and behaviors considered suitable for one domain but not the other.

The characteristics of work and family domain borders, such as their flexibility and permeability, play a critical role in how individuals manage the interface between these roles. Highly permeable and flexible borders enable responsibilities, emotions, and experiences to transfer easily from one domain to another. While this can promote enrichment, it also increases the risk of conflict. In contrast, rigid or impermeable borders may reduce interference between domains but can also hinder opportunities for positive cross-domain interaction. The strength of a border is determined by the combination of these attributes. According to Clark (2000), strong borders are defined by high impermeability, inflexibility, and minimal blending, whereas weak borders are characterized by ease of permeation and high flexibility, allowing for greater blending between roles. The theory posits that effective management of these borders and the “bridges” that connect them is essential for achieving and maintaining work-life balance.

Within this framework, individuals are conceptualized as daily "border crossers," transitioning between the roles and responsibilities of work and family. The degree to which these domains are separated, and how individuals establish and control boundaries within them, shapes the success of their work-life balance strategies. As Leung and Zhang (2017) explain, Work-Family Border Theory focuses on how people manage and navigate the boundaries separating work and family life to foster balance. This includes understanding the influence of boundary management strategies such as segmentation (keeping domains distinct), integration (blending domains), and boundary control (the ability to regulate transitions between domains).

Work-life balance is more easily achieved when individuals are afforded flexibility in how they define and navigate these borders, for example, through adjustable work schedules or adaptable home responsibilities. The theory highlights the importance of boundary flexibility as a mechanism for enhancing personal autonomy and improving alignment between professional and personal life demands. Given its focus on boundary construction, navigation, and control, Work-Family Border Theory is especially relevant to this study, offering a valuable framework for examining how healthcare workers in high-demand environments manage role transitions and balance competing responsibilities.

Given these challenges, the justification of this study relies on spillover theory, work-family border theory, and CHAT. For instance, spillover theory explains how workplace demands, stress, and emotions extend into personal life, affecting employees' well-being. Work-family border theory is essential in analyzing how individuals manage transitions between work and home responsibilities within a structured but demanding hospital environment. CHAT further strengthens the study by examining how institutional policies and cultural norms shape employees' experiences and coping mechanisms.

2.1.4 The Concepts of Spillover Effects, Boundary Management, and Social Norms

2.1.4.1 The Concept of Spillover Effects

Spillover describes the transmission of beneficial experiences such as emotions, skills, values, and behaviors from one life domain to another. For example, multitasking skills developed in the workplace may be utilized in the home environment. This kind of transfer is often supported by job autonomy, which grants individuals the freedom to determine how they carry out their responsibilities, thereby enhancing positive spillover between work and personal life. Garg and Rastogi (2009) note that employees with higher levels of autonomy are more likely to experience positive spillover and enjoy greater control over various aspects of their lives.

Straub *et al*. (2019) describe instrumental spillover as the process through which beneficial behaviors, skills, and values acquired in the workplace positively influence the well-being of one's family life. In this study, spillover is defined as the transfer of experiences, both emotional and behavioral, between the work and family domains. To assess this construct, a modified positive spillover scale was employed, using a five-point Likert format that measures the extent of transfer in terms of affect, values, and behaviors between the two spheres. Affect plays a pivotal role in the work-family interface by shaping attitudes and promoting constructive behaviors across contexts. Similarly, values formed within the home such as empathy or responsibility can enhance workplace performance, leading to improved job satisfaction. Likewise, behaviors grounded in strong workplace values like collaboration, problem-solving, and effective communication often carry over into family interactions, thereby supporting personal development and goal achievement.

Empirical evidence supports the idea that positive spillover, where work and non-work experiences enrich one another, contributes to psychological well-being and promotes a

sustainable work-life balance. However, most of the current research on spillover has been conducted in conventional occupational settings and fails to fully capture the dynamics at play in high-pressure environments such as hospitals. Healthcare professionals often operate under rigid schedules, face emergency situations, and endure significant emotional labor, all of which may increase the likelihood of negative spillover. This includes emotional exhaustion, elevated stress levels, and the transfer of burnout-related behaviors into personal relationships, which can undermine family cohesion and well-being.

Furthermore, while literature on positive spillover is well established, the negative dimensions of spillover remain underexplored, particularly within the healthcare context. Another critical limitation is that the spillover concept tends to underemphasize boundary management as a potential moderating factor in mitigating role conflict. As Demerouti *et al*. (2012) suggest, effective boundary-setting between work and family can play a central role in reducing the risk of conflict and strain. Yet, this aspect is often overlooked in studies focusing on spillover, highlighting a gap that this study seeks to address, especially within the demanding settings of national referral hospitals in Kampala.

2.1.4.2 The Concept of Boundary Management

Boundary management is conceptualized as employees 'ability to create and maintain the boundaries between the work and home domains (Wepfer *et al*., 2018). Kossek and Lautsch (2012) posit that a boundary management style is the general approach employees use to define boundaries to attend to work and family, thereby creating employees' WLB. Naturally, employees enact behavioral strategies and create contextual conditions that facilitate their ability to manage boundaries in a way that aligns with their personal preferences (Kossek, 2016; Kossek & Lautsch, 2012; Kreiner, Hollensbe, & Sheep, 2009). This is in agreement with

the study of Chen *et al*. (2009), who suggested that individuals are likely to feel more active in their work and nonwork roles when their boundary management preferences are aligned with their environment, which leads to the ease of employees' WLB. Integration refers to employees' ability to maintain flexible and permeable boundaries, allowing them to simultaneously attend to responsibilities in work, family, and community domains thereby supporting a holistic approach to work-life balance (Adisa *et al*., 2019). In contrast, segmentation describes employees' preference to keep work and family domains distinctly separate by establishing rigid, impermeable boundaries, aimed at minimizing interference and promoting balance (Daniel & Sonnentag, 2016). Work-life balance is also influenced by boundary control, which refers to the extent to which individuals perceive they can manage and regulate the separation or blending of work and family responsibilities (Kossek *et al*., 2012).

However, boundary management primarily emphasizes emotional connections between work and family but gives limited attention to behavioral interactions. While it focuses on work-family balance, it overlooks other critical domains such as social life, personal development, and community engagement, which are essential for holistic work-life balance. Additionally, employees' ability to manage physical routines and daily activities across these domains remains underexplored.

2.1.4.3 Concept of Social Norms

Social norms function as unwritten rules that guide behavior within groups and societies, promoting collective actions aligned with shared goals (Frederiks *et al*., 2015; Morris *et al*., 2015). By adopting norms derived from interactions with the community, employees are empowered to engage in collective participation, balancing workplace objectives with personal pursuits. These norms, while often unwritten, establish expectations for behavior within social

groups (Morris *et al*., 2015). Although specific professional norms may vary, certain shared norms are prevalent among healthcare personnel. These include prioritizing patient-centered care, promoting teamwork and collaboration across disciplines, and upholding confidentiality and privacy standards (Robinson & Cottrell, 2005; Sangaleti *et al*., 2017; Schmitt *et al*., 2011).

Nevertheless, social norms have been largely ineffective in supporting WLB among employees in national referral hospitals by reinforcing traditional gender roles, demanding long working hours, and imposing socio-cultural expectations that prioritize professional dedication over personal well-being (Uddin, 2021).

Additionally, the deeply fixed norm of long working hours in healthcare creates an environment where personal time is sacrificed for professional duties, making it difficult for employees to maintain a healthy balance (Brough *et al*., 2008). The interplay between social norms and institutional policies remains insufficiently examined, particularly in the context of Uganda's national referral hospitals. Although existing studies recognize the influence of social norms on professional conduct, there is a lack of substantial research on how these norms collectively influence healthcare workers' capacity to attain work-life balance (Brown *et al*., 2021). As a result, the impact of social norms on employees' work-life balance remains insufficiently explored.

2.1.4.4 Understanding Employees' Work-Life Balance

Work-life balance (WLB) describes the deliberate efforts employees make to maintain a harmonious relationship between their professional duties and personal lives. This balance is essential in promoting employee well-being, enhancing job satisfaction, and sustaining overall productivity (Berry & Hughes, 2020). Achieving an effective balance allows individuals to

fulfill work obligations without compromising their personal health, family responsibilities, or social commitments, thereby supporting both organizational goals and individual quality of life.

It encompasses the prioritization employees make between their jobs and other obligations such as personal development, family responsibilities, leisure, social connections, and spiritual growth (Ruderman *et al*., 2021). Greenhaus *et al*. (2003) highlighted that while some studies treat work-life balance as an independent variable, in certain instances, it's viewed as a dependent variable influenced by various factors (Greenhaus *et al*., 2003). For example, Anand *et al*. (2016) argue that WLB is shaped by individual, group, and organizational factors, thus making it a dependent variable.

Employees manifest this prioritization by managing their time, commitment, energy, and availability between their work and personal life domains (Ruderman *et al*., 2021). Lewis suggests that achieving WLB involves a two-way process that considers both employee and employer needs (Martínez-León *et al*., 2019). This entails WLB management, which devises and implements policies fostering workplace support and flexible working arrangements (FWA). Supportive managers play a pivotal role in achieving WLB by making significant decisions regarding workplace practices (Campo *et al*., 2021; Stavrou & Ierodiakonou, 2016; Smith *et al*., 2019).

This study explored the key dimensions commonly used to assess work-life balance (WLB), focusing specifically on time balance, involvement balance, and satisfaction balance (Brough *et al*., 2014; Greenhaus *et al*., 2003; Taşdelen-Karçkay & Bakalım, 2017). Time balance refers to the equitable distribution of time and attention between professional and family

responsibilities (Wayne *et al*., 2017). Involvement balance describes the extent to which individuals are mentally and emotionally engaged in both work and family roles (Brough *et al*., 2014). Meanwhile, satisfaction balance reflects the level of fulfillment individuals derive from effectively managing responsibilities in both domains (Brough *et al*., 2020). According to Greenhaus *et al*. (2003), these dimensions collectively provide a comprehensive framework for evaluating WLB, considering time allocation, role engagement, and emotional satisfaction across work and personal life.

Globally, work-life balance continues to be a major concern in the healthcare sector. In Singapore, for instance, healthcare professionals reportedly spend over 80% of their time on work-related tasks, leaving just 20% for personal and family life, which contributes to poor WLB outcomes (Kowitlawkul *et al*., 2019). In Africa, the situation is similarly concerning. In Ghana, approximately 70% of healthcare workers report inadequate work-life balance, primarily attributed to overwhelming job demands (Teye Maku, 2022). In Uganda, the issue is no less critical. Mbatudde *et al*. (2023) reported that 51.9% of health professionals experience high stress levels, underlining the difficulty of achieving a healthy work-life balance. Additionally, due to limited economic opportunities and managerial support, Uganda is ranked 22nd globally in terms of healthcare workforce migration, with 45% of its medical professionals seeking employment abroad. The absence of flexible work arrangements and insufficient organizational support further hinder efforts to retain skilled personnel. Despite these challenges, limited empirical data exists on the actual state of work-life balance among employees in Uganda's national referral hospitals particularly those in Kampala indicating a significant research gap that this study seeks to address.

2.2 A Review of Empirical Research on Spillover, Boundary Management, and Social Norms in Shaping Work-Life Balance

2.2.1 The Spillover Effect and Employee Work-Life Balance

Theoretically, spillover is assumed to contribute positively towards employees' WLB. Several studies have been conducted to prove this theoretical assumption in different contexts, but there are mixed findings. For instance; Lee-Peng *et al*. (2016) investigated how work-family conflict and positive work-family spillover influence job satisfaction among healthcare workers in Malaysia. Employing a cross-sectional design and quantitative methodology, data were gathered from 500 participants through a self-administered questionnaire. The results indicated that the cross-domain perspective provided a more effective explanation of work-family conflict outcomes compared to the same-domain attribution approach. Moreover, family-to-work conflict emerged as a stronger predictor of job satisfaction than work-to-family conflict. The study further found that while both directions of spillover, family-to-work and work-to-family, enhanced job satisfaction, the influence of work-to-family spillover was more significant. These outcomes suggest that personal values and behaviors developed at home positively impact professional roles, highlighting the importance of cross-domain interactions in shaping job satisfaction. However, since the research was context-specific to Malaysia and cross-sectional in nature, its findings may not be directly generalizable to the Ugandan context, underlining the need for localized studies such as the present one.

Grzywacz and Marks (2000) conducted an extensive investigation in the United States to identify factors contributing to positive spillover between work and family domains. Drawing on data from the National Survey of Midlife Development in the United States (MIDUS), which involved a sizable sample of 1,986 employed adults, the study analyzed how various work and family characteristics affect both directions of positive spillover work-to-family and

family-to-work. The results showed that family-oriented factors, particularly support from spouses and other family members, were positively associated with family-to-work spillover. On the other hand, work-related factors had mixed effects: decision-making autonomy was positively associated with both directions of spillover, while high job pressure had a detrimental effect on both work-to-family and family-to-work spillover. Although the study contributed valuable insights into the dynamics of positive work-family interaction, its U.S.-specific context limits the generalizability of its findings to the Ugandan setting, emphasizing the importance of conducting context-specific studies like the present one.

Similarly, Heijden (2022) examined how three types of workplace social support, coworker support, supervisor support, and family-friendly organizational policies contribute to achieving work-family balance. The study further assessed whether a partner's perception of emotional and instrumental support influenced the individual's family life satisfaction. Using a time-lagged research design, data were collected from 369 heterosexual couples, measuring workplace social support and work-family balance at Time 1 (T1), followed by family support variables and partner life satisfaction at Time 2 (T2). Structural equation modeling revealed that coworker support and the existence of family-supportive organizational policies significantly enhanced employees' ability to balance work and family responsibilities. Moreover, only emotional family support was found to positively influence a partner's satisfaction with family life. However, the use of a convenience sampling method limits the generalizability of these findings, suggesting the need for research that employs more rigorous, probability-based sampling methods such as the random sampling technique adopted in the current study to ensure more reliable and applicable results for policy and managerial use.

Peng (2017) conducted a study in the United States to explore how negative work-to-family spillover influences parental stress, involvement, and adolescent behavioral outcomes. The analysis, which utilized data from the Flourishing Family Project (FFP), encompassed different family structures, including single working mothers, partnered working mothers, and dual-earner couples. Structural equation modeling revealed that although negative spillover did not directly impact adolescent externalizing behavior, it had an indirect effect mediated through increased parental stress and decreased parental involvement. Notably, the influence of work-to-family stress was significant only among single working mothers, underscoring the importance of family structure in shaping spillover dynamics. These findings illuminate the broader consequences of work-related stress on family functioning and child development.

In a related French study, Marcel (2008) examined both positive and negative work-home and home-work spillover and their respective influences on stress and job satisfaction. Utilizing structural equation modeling with a sample of 283 employees, the research revealed that both positive and negative spillovers significantly shaped stress levels and job satisfaction. The study underscored the interconnectedness of home and work environments, suggesting that managing spillover effectively could lead to improved work-life balance (WLB). However, broader applicability of these findings to non-Western contexts remains limited due to regional and cultural differences, highlighting the need for localized research such as the current study in Uganda.

Alfonso (2024) assessed the mediating role of affective experiences at work in the relationship between work-family conflict/enrichment and overall WLB. Drawing on Affective Events Theory, the study used a convenience sample of 104 Italian employees and found that positive emotions during the workday significantly contributed to enhanced family experiences. Despite

these findings, the limited sample size and cultural homogeneity raise concerns about the generalizability of the results, especially to African or low-resource contexts.

Lott and Wöhrmann (2022) investigated the impact of working time demands—such as after-hours contact, evening work, and extended hours—on WLB among dual-earner couples in Germany. Analyzing data from the 2017/2018 German Family Panel (pairfam; N = 1,053 couples), path analysis revealed that high work demands negatively influenced individual WLB and also spilled over to partners via work-life conflict (WLC). These findings emphasized the complexity of spillover and crossover effects in contemporary labor markets, particularly in highly digitized environments. Nonetheless, their focus on dual-earner couples in a Western setting limits the applicability of these findings to different cultural and economic contexts, such as Uganda, where collectivist norms and resource constraints may shape these dynamics differently.

Mordi, Ajonbadi, and Adekoya (2023) explored how technology-induced boundary permeability during the COVID-19 pandemic affected the WLB of academic staff in the UK. Based on semi-structured interviews with 43 academics, the study found that remote work and ICT use blurred the line between work and home life, particularly disadvantaged women due to unequal caregiving responsibilities. The findings revealed significant gender disparities and called for institutional reforms to address digital well-being and work-family balance. However, the UK-based, academic-focused, and qualitative nature of the study limits its generalizability to structurally rigid professions like healthcare in resource-limited African settings.

Similarly, Bordunos, Kosheleva, and Altukhova (2023) assessed the effectiveness of employer-driven coping strategies in mitigating work-family spillover, especially for women balancing professional and domestic roles during the pandemic. Using data from 204 participants and applying exploratory factor analysis and OLS regression, the researchers found that while remote work and parental leave did not significantly moderate negative spillover, corporate support mechanisms and active coping strategies improved employee well-being. These findings contribute to the understanding of diversity and inclusion efforts in organizations. However, the pandemic-specific context and reliance on self-reported data limit the broader applicability of these results, particularly in African regions lacking institutional support systems like paid leave.

Lee *et al*. (2021) conducted a longitudinal study on 1,386 Korean female employees to examine how work-life spillover predicted depression over a two-year period. The study, utilizing the Korean Longitudinal Survey of Women and Families, showed that negative spillover significantly increased the likelihood of depressive symptoms. Interestingly, positive spillover demonstrated a U-shaped relationship with depression, suggesting that moderate levels of enrichment are most beneficial. These results emphasized the psychological toll of chronic work-life conflict and the need for policy interventions. However, the focus on Korean women, along with reliance on self-reported depression scales, limits the transferability of findings to broader and more diverse populations.

From the above-reviewed studies, it is evident that empirical literature on the spillover effect and work-life balance exists, though with a varying focus and results. For instance, Lee-Peng *et al*. (2016) found that while both directions of spillover, family-to-work and work-to-family, enhanced job satisfaction, the influence of work-to-family spillover was more significant. In the USA, a study (Grzywacz and Marks, 2000) sought to identify factors contributing to

positive spillover between work and family domains and found that family-oriented factors, particularly support from spouses and other family members, were positively associated with family-to-work spillover. Similarly, Heijden (2022) examined how three types of workplace social support, coworker support, supervisor support, and family-friendly organizational policies contribute to achieving work-family balance. In French, a study (Marcel, 2008) examined both positive and negative work-home and home-work spillover and their respective influences on stress and job satisfaction and found that managing spillover effectively could lead to improved work-life balance (WLB).

Elsewhere, a study (Alfonso, 2024) assessed the mediating role of affective experiences at work in the relationship between work-family conflict/enrichment and overall WLB and found that positive emotions during the workday significantly contributed to enhanced family experiences. In yet another study, Lott and Wöhrmann (2022) found that high work demands negatively influenced individual WLB and also spilled over to partners via work-life conflict (WLC) among dual-earner couples in Germany. Elsewhere, Bordunos *et al*., (2023) assessed the effectiveness of employer-driven coping strategies in mitigating work-family spillover and found that while remote work and parental leave did not significantly moderate negative spillover, corporate support mechanisms and active coping strategies improved employee well-being. Lee *et al*. (2021) study on Korean female employees to examine work-life spillover and depression showed that negative spillover significantly increased the likelihood of depressive symptoms.

However, the studies reviewed above are not without limitations. For instance, some studies (Lee-Peng *et al*., 2016) focused on family-related antecedents when analyzing the spillover, while other studies (Grzywacz and Marks, 2000) focused on identifying factors contributing to positive spillover between work and family domains rather than establishing a causal link between spillover and work-life balance. Marcel's (2008) study focused on linking positive and

negative work-home and home-work spillover to stress and job satisfaction rather than on work-life balance. Alfonso's (2024) study utilized a convenience sampling technique on a small sample of 104 Italian employees, thereby making the study prone to sampling bias and unfit for global generalization. Lott and Wöhrmann's (2022) study focus on dual-earner couples in a Western setting, limits the applicability of these findings to different cultural and economic contexts, such as Uganda. Similarly, Studies (Lee *et al*. 2021 and Bordunos et.al. 2023) use self-reported data, which limits the broader applicability of their results.

Moreover, studies (Lee *et al*. 2021) focused on how work-life spillover predicted depression rather than linking spillover to work-life balance. Furthermore, the Majority of the reviewed studies (Lee-Peng *et al*., 2016; Grzywacz and Marks, 2000; Marcel, 2008; Alfonso, 2024; Lee *et al*., 2021; Bordunos et.al., 2023; Lott and Wöhrmann, 2022) were all done in a Western setting whose context and circumstances do not relate to the African context, thereby limiting the applicability of these findings to different cultural and economic contexts such as Uganda. Moreover, the majority of the reviewed studies (Lee-Peng *et al*., 2016; Grzywacz and Marks, 2000; Marcel, 2008; Alfonso, 2024; Lee *et al*. 2021; Bordunos et.al. 2023; Lott and Wöhrmann, 2022) neither focus on aspects of spillover such as affects, behavior and values as proposed by the spillover theory nor establish a direct empirical link between the above stated constructs of spillover to work-life balance. Consequently, little is known about the status and effect of spillover (along its three main constructs: affects, values, and behaviour) on work-life balance, particularly in the context of the African healthcare system.

2.2.2 Managing Boundaries for Improved Work-Life Balance among Employees

David (2018) conducted a study in Sweden to explore the relationship between after-hours teleworking, boundary management, work-family conflict, and exhaustion. The objective was to determine whether teleworking beyond regular working hours contributed to increased

work-family conflict and emotional fatigue, and how boundary permeability between work and non-work roles affected these outcomes. The research involved 71 full-time employees from a multinational high-tech company who completed a web-based survey. Contrary to the initial hypotheses, the study found no significant relationship between the extent of after-hours telework and levels of work-family conflict or exhaustion.

However, participants who reported more permeable boundaries—where work easily intruded into non-work activities experienced higher levels of conflict. Despite these insights, the study was constrained by its cross-sectional design, which limited causal interpretation, and a small sample size, which weakened the generalizability and robustness of the findings. Furthermore, the reliance on self-reported data introduced potential biases related to accuracy and social desirability. The current study seeks to address these limitations by incorporating broader and more representative sampling techniques and investigating these variables within a different sector and cultural context of national referral hospitals in Uganda.

Similarly, Maria (2020) examined the interplay between work-family segmentation and work-family balance, focusing on the moderating role of family-supportive organizational perceptions (FSOP) in Portugal. Drawing on data from 302 Portuguese employees, the study aimed to assess whether employees' perception of family-supportive organizational culture influenced the relationship between segmentation strategies and overall work-family balance. The findings affirmed both hypotheses: segmentation positively correlated with improved work-family balance, and FSOP served as a buffering factor, strengthening this relationship. These results underscore the significance of cultivating organizational cultures that actively support employees' family responsibilities. However, the study faced notable limitations. Additionally, the exclusively Portuguese sample limited the generalizability of the results to other cultural contexts, where norms around work and family may differ. The present study addresses these gaps by incorporating demographic variables as controls—such as marital

status, gender, and job role—when examining FSOP and work-family balance. These controls are particularly relevant in Uganda, where family obligations and workplace expectations are influenced by distinct socio-cultural dynamics.

A case study developed by Elmira and Samia(2021) in Ontario, Canada, delves into the boundaries being crossed over by peer support workers (PSWs) in regard to their work-life balance when handling their mental health tasks by being able to work from home as part of the PSW profession. This paper set out to learn the implications of the transition to remote work, which was occasioned by the COVID-19 pandemic, on the boundary experiences of PSWs. The research involved participants working formally and paid employees of a peer support Organisation, and the data collected were in-depth interviews. Inductive and deductive coding were done to undertake the thematic analysis. First, interpretive codes based on the language of the participants were used, and second, inferential, that structured themes in categories based on the boundary theory. The report indicated that the sudden shift to the remote work environment had a crucial effect on the time, space, and work boundaries of PSWs. Nonetheless, segmentation and integration strategies revealed certain flexibility in the mindsets of the participants despite these obstacles. Segmentation meant a separation in time schedules, area, and division of labour, whereas integration had given some flexibility between the professional and the personal spheres. Nevertheless, the results of the study are not generalizable enough as it is specific to one organization, and the data provided was gathered in times of the initial phases of the pandemic.

In a closely related study, Christin (2013) studied how professionals in flexible knowledge-intensive occupations in Sweden negotiate a boundary between work and personal life. The study was aimed at determining the favorite manner in which people manage boundaries, how they view their management of boundaries, and the effect of all this on their balancing of work and life. The population under investigation was full-time workers in a large firm that deals

with telecommunication in Sweden. The collection of data was conducted based on the web-based survey, which was delivered to 1,238 employees resulting in 808 responses. These findings implied that there is a common orientation towards segmentation- an individual should keep work and personal spheres deeply separated. Specifically, male employees in favor of segmentation stated they have a more significant level of boundary control and an improved work-life balance than others, and it may indicate that men have better advantages when using segmentation practices in this type of professional setting.

In Germany, Stefanie (2020) undertook a qualitative study to determine how participants maintain the integrity of work and non-work roles and the activities that facilitate an appropriate work-life-balance. As the researchers realized that mental well-being is relatively linked to preserving such a balance, they focused on a gap in the qualitative literature that deals with how individuals construct and maintain boundaries in their everyday lives. The small sample of four German participants (24-27 years old) provided their data with the help of semi-structured interviews. The results showed that there was a preference to keep boundary between work and personal life very clear. The tasks which the participants reported as being beneficial in maintaining these boundaries were consistent with the values of Self-Determination Theory, with the psychological needs of autonomy, relatedness, and competence. Nevertheless, it is apparent that the sample size of the study has significant methodological weaknesses, such as the lack of generalizability and internal validity.

Molly (2022) carried out mixed-methods research in the United States to understand the way in which teachers have implemented boundary management strategies to sustain work-life balance prior to and during the initial year of the COVID-19 pandemic. The research purpose was to define the strategies of teachers who described themselves as satisfied with their work-life balance and to provide information about helping to maintain the boundaries during the post-pandemic era. Measurements of work-life balance satisfaction, as well as the type and

frequency of boundary tactics used, were measured using quantitative data, whereas qualitative responses provided a greater understanding of personal experience and adaptive strategies of the teachers. The results emphasized that even the tide formation of a distinction between the two sites of work and nonwork plays a significant role towards balance. In addition, it was found that boundary management was not fixed in the sense that boundaries changed in adapting to personal situations, necessities and work environments. The research underlined the need to support people in their ability to manage and manipulate their boundaries as a method of minimizing disappointment with having a work-life balance. It also suggested that time pressure is an objective measure that has the potential for refinement in the assessment of work-life balance in the future.

Robinson (2013) looked into the situation of work-life boundary management when dealing with residence life professionals in the United States living on site, in their workplaces (a high degree of integration of work and life). The paper looked into the ways in which these professionals move around physical spaces, technological encroachments and boundary drawing mechanisms to cope with stress and lower burnout. A constructivist grounded theory approach was used as the twelve participants, who were sampled by maximum variation sampling in a national survey, were interviewed by using semi-structured interviews. The participants were in six out of nine ACUHO-I regions in different public and private institutions. The analysis of data was done according to the principles of grounded theory (open and focused coding, constant comparison, and memo writing) and the result of a conceptual process model of boundary management in integrative environments. The findings offered a good understanding of the way early-career professionals learn to overcome complicated boundary dilemmas and indicated methods that could be used to improve adaptation, decrease burnout and increase retention. This study is applicable to organizational leaders and practitioners that need to assist employees in very immersive working environments.

Danyelle (2023) conducted research to investigate how work-life boundary management affects the work-life balance of remote workers in the United States. Its ultimate goal was to determine whether actively managing the boundaries between the professional and personal spheres would positively impact the work-life balance in remote working conditions. Using a descriptive survey design, the researcher identified 257 respondents as remote workers; however, only 74 respondents completed their participation. Simple and stratified random methods of sample selection were used to pick the participants. The results showed that there was a subtle interaction between the balance of boundary management and work life. In the long-term perspective, good boundary management proved to improve work-life balance, and the lack of boundary regulation was linked with reduced balance. Remarkably, the positive short-term impact on work-life balance may also be seen in the allowance of temporary and deliberate flexibility of the boundaries, especially when it comes to supporting personal needs. Notably, the research failed to discover that the management of boundaries adversely affects the work-life balance.

Wepfer *et al* (2018) examined the backdrop of increasingly blurred boundaries between work and nonwork in Germany, Austria, and Switzerland. The purpose of this study was to investigate the implications of employees' work-to-life boundary enactment for well-being. Recently, a research model has been formulated and tested, which studied the issue of how enactment of work-to-life integration impacts employee well-being, namely, exhaustion and lowered work-life balance through the mediating variable of decreased recovery activities. The structural equation modeling was done in the evaluation of the model on a sample size of 1,916 respondents who were selected using an online panel. The results concluded that the higher the work-to-life integration enactment, the fewer the recovery activities executed, which consequently resulted in exhaustion and poor work-life balance. The study will add value to the body of literature on boundary management by shedding light on the consequences of work-

life boundary behaviors on employee well-being and bringing recovery as one of the pivotal explanatory factors. The implications of these insights for human resource professionals and organizational leaders are practical since they should consider ensuring that the organization inculcates boundary management strategies to maintain the positive health of the employees. However, this study did not establish the causal link between boundary management activities and employee work-life balance.

The study (Adisa *et al*., 2022) discussed how the COVID-19 pandemic affected boundary management and work-life balance among a group of employees in the United Kingdom and, in particular, the academic professionals working remotely during the first lockdown. The research utilized a multi-method qualitative design through which they gathered information from 25 participants. In contrast to the potential advantages presented by remote work flexibility, the data demonstrated that in many cases obligatory work-at-home setups decreased the sense of flexibility because of the loss of essential systems of emotional and practical support, such as childcare services and physical socialization. Factors that contributed to the lack of them included more work, the surveillance of employers, being socially isolated, and situations when professional and personal boundaries started to dissolve. However, this study focused on how COVID-19 affected boundary management activities rather than establishing a causal link between boundary management and work-life balance. Besides, a small sample of mere 25 participants renders generalization impossible.

Dexiang *et al*. (2023) examined how flexibility in family boundaries affects employee work engagement in the Chinese corporate reality. The study aimed at revealing the mediating mechanism and contextual circumstances determining the interaction between family boundary flexibility and work engagement. The study used a survey-based qualitative design whereby semi-structured interview data of 433 respondents were collected among employees of enterprises. The findings established that conformity between the flexibility of family

boundaries and occupationally necessitated outcomes was extremely effective in promoting occupational orientation. Moreover, it was revealed that family-to-work enrichment had a partial mediating role in this relationship. A moderating variable, family support, was introduced as a decisive factor of the direct effect between enrichment and work engagement and the mediated one between boundary flexibility and engagement. The research adds value to the literature since it found that family support is a mediator that empowers the positive effects of family boundary flexibility. Nevertheless, the study suggests that longitudinal approaches should be utilized to trace the changing characteristics of the family boundary over a long period of time. Based on this consideration, the present research has a widened perspective to examine the role of family boundary flexibility mediated by family support on work-life integration and engagement, especially in the health sector in Uganda.

Isabella and Johannes (2023) examined the implications of flexible and permeable work-home boundaries on the work-life balance of crowd workers whose working activities were hired through Amazon Mechanical Turk (MTurk) labour platforms in Canada. The purpose of the study was to investigate the effect of a lack of physical division between the home and the workplace on well-being among employees. The leading hypothesis the researchers assumed was that using a qualitative survey method, it was possible to obtain some information about the lived experiences of remote workers who interacted under the conditions of high boundary flexibility and permeability. The results showed that organizational support is the key to increasing employee satisfaction, whether flexible schedules or inflexible schedules are provided.

The regular application and embracement of digital workplace (DWP) technologies were a major factor in the realization of positive results because employees could manage their work and expectations in a better way. Spatial and temporal flexibility were also appreciated by the participants, which implies that they are one of the factors that, to a large degree, cause better

job satisfaction. Additionally, the findings described the difficulties of working in international remote teams at the time of the COVID-19 lockdowns, when people experienced different restrictions in different countries that interrupted coherent work processes and further affected the boundaries between work and life. The situation worsened the loss of work-home boundaries. The authors, therefore, highlighted the relevance of leadership cooperation in the successful incorporation of DWP tools and the creation of a joint responsibility and accountability system in their application.

In the research conducted by Yann Bogaerts (2018) in Belgium, the researcher attempted to explore the applicability of fit between work-nonwork boundary management, focusing on the correspondence between how employees manage their boundaries and the foundation of support that their work contexts hold and promote with regard to boundaries. The essence of the study was the formulation and confirmation of such a construct premised on the needs-supplies fit framework, which would capture the congruency between personal preferences and boundary supplies offered by the organization, a gap that had been earlier ignored in the literature. The researchers developed and verified work-nonwork boundary management fit scale on four different samples, which include diverse employees (n = 188), employees in a hospital setting (n = 75), employees working in a car manufacturing company (n = 81), and working parents (n = 458). The results showed that the boundary preference-environmental boundary support congruence was a predictor of employee well-being, specifically in regards to lower stress and work-life conflict. Notably, this fit was a unique add-on to well-being outcomes besides other elements like the workload and nonwork behaviors that interrupt work. Regardless of the contribution, the study was mostly qualitative in nature, and this might restrict the applicability and accuracy results of findings.

In a study by Kim K. Smith (2014) conducted in the United States, the author sought to find out the relationship dynamics that exist between boundary management and virtuality of work,

organizational climate, and organizational identification. The aim was to look at the work-home balance and how the balance is achieved by people in light of their individual styles of boundary management and the influences of the organization. In particular, this research study examined the relationship between virtual work arrangements and organizational climate on boundary management practices and in relation to the identification of workers with the organization. An exploratory research design was applied and its sample focused on a group of 242 full-time working women belonging to different industries, and all more than 18 years old. It was uncovered in the study that organizational climate entrusting customization of boundary management plays a positive role in influencing the organization identification of employees. It also pointed out the fact that virtual work settings which are not usually seen as beneficial can in fact be advantageous in promoting employee identification as long as it goes in connection with favorable boundary management climates. The study was however not able to provide any causal inference since it was a cross-sectional study. The present study fills the research gap by suggesting a more detailed model that takes into consideration both work and nonwork satisfaction and well-being measures as the predictors of the overall employee well-being. On the same note, Nobrega (2021) examined the process of home–work boundaries by Brazilian male expatriates when they are the foreigners. In terms of methodology, the research took the qualitative design with in-depth interview of 64 participants and employed the content analysis to reveal the strategies expatriates employ to address the prospective conflicts in the working (e.g., with employers, clients) and family (e.g., with spouses, children) spheres. The findings revealed that expatriates are dynamic and can switch between integration and segmentation strategy when the situation requires it. The research study is based on the view that organizations should consider organizational policies that favor the boundary orientation preference of expatriates and their family to have healthy work-home boundaries.

(Ellen et al. 2012) conducted a study in the United States to enhance the theoretical and practical understanding of work-nonwork boundary management by adopting a person-centered approach. Utilizing a descriptive research design, data were collected from a stratified sample of 102 employees across senior management, middle management, and support staff through structured questionnaires. While prior research often categorized individuals as either segmenters or integrators, the study's findings emphasized the need to consider the multidimensional nature of boundary management. Specifically, individuals differ not only in how they manage interruptions across work and non-work domains but also in the directionality of these interruptions, their role identity salience, and the perceived psychological control over boundary enactment. Despite involving professionals from large U.S. multinational corporations, the cross-sectional nature of the research limited causal inferences. The current study seeks to address this limitation by examining the nuanced relationships between identity, boundary control, and interruption behaviors in a more integrative framework.

Similarly, Reissner (2021) investigated how knowledge workers manage work-non work boundaries by utilizing time, space, and objects in the UK context. Conducted at Newcastle University Business School, the study used semi-structured interviews with 24 knowledge workers and identified three configurations of boundary management practices. These configurations serve as a useful foundation for future studies exploring the inconsistencies in boundary behaviors across various cultural contexts. However, the research calls for more comprehensive examinations of how individuals navigate boundary management in practice. The present study contributes to this discussion by analyzing how healthcare workers in Uganda manage work-non work boundaries when given spatiotemporal flexibility.

De Gieter et al. (2022) focused on boundary management fit in Belgium, exploring how the congruence between employees' preferences and practices affects family satisfaction and performance. Utilizing both cross-sectional and time-lagged designs, the study confirmed that

boundary fit positively influences family outcomes, especially when work-family conflict is reduced. However, while directional relationships were suggested, the research stopped short of establishing causality due to its methodological design and reliance on self-reported data. The present study extends this line of inquiry by investigating how congruence between boundary preferences and enactment impacts work-life enrichment and well-being in a healthcare setting. De Gieter *et al*. (2022) found that boundary management fit in Belgian healthcare improved family satisfaction by 30% when preferences aligned with practices.

Basile (2014) examined the framing of work-life boundaries in the UK among home-based workers. Her mixed-method study combined semi-structured interviews, a two-week diary, and a quantitative survey (n = 514). The findings showed that boundary permeability moderated the relationship between job demands and well-being, offering more insight than binary segmentation-integration models. However, the reliance on self-report measures raised the potential for common-method bias. The current study addresses this by focusing on the dynamic nature of boundaries over time and across different social groupings, such as families, colleagues, and co-workers.

Reinke and Gerlach (2021) examined the influence of perceived availability expectations from work and nonwork domains on employees' boundary behaviors and well-being in Switzerland and Norway. Using a longitudinal panel design (n = 401), the study found that high work-to-home segmentation, paired with low home-to-work segmentation, was most beneficial for employee well-being. It further highlighted that boundary management is most effective when aligned with individual preferences. The present research builds on this by examining how these mechanisms function in Ugandan healthcare environments, where organizational expectations and resource constraints may shape boundary behaviors differently.

From the above reviewed studies, there is evidence of the existence of empirical studies that relate boundary management activities to work-life balance, but their focus and findings vary.

For instance, David's (2018) study explored the relationship between after-hours teleworking, boundary management, work-family conflict, and exhaustion and found that there is no significant relationship between the extent of after-hours telework and levels of work-family conflict or exhaustion. In Portugal, Maria et.al (2020) study affirmed that segmentation positively correlated with improved work-family balance. In Ontario, Canada, Elmira and Samia's (2021) study delved into the boundaries being crossed over by peer support workers (PSWs) regarding their work-life balance and found that the sudden shift to the remote work environment had a crucial effect on the time, space, and work boundaries of PSWs. Christin's (2013) study found that there is a common orientation towards segmentation- an individual should keep work and personal spheres deeply separated. In Germany, a study (Stefanie, 2020) showed that there was a preference to keep the boundary between work and personal life very clear. In the United States, Molly (2022) investigated the way in which teachers have implemented boundary management strategies to sustain work-life, and found that even the tide formation of a distinction between the two sites of work and nonwork plays a significant role in balance. Wepfer *et al* (2018) examined the backdrop of increasingly blurred boundaries between work and nonwork in Germany, Austria, and Switzerland. The results concluded that the higher the work-to-life integration enactment, the fewer the recovery activities executed, which consequently resulted in exhaustion and poor work-life balance.

The study (Adisa *et al*., 2022) discussed how the COVID-19 pandemic affected boundary management and work-life balance among a group of employees in the United Kingdom. Dexiang *et al*. (2023) examined how flexibility in family boundaries affects employee work engagement in the Chinese corporate reality. Isabella and Johannes' (2023) study examined the implications of flexible and permeable work-home boundaries on the work-life balance of crowd workers whose working activities were hired through Amazon Mechanical Turk (MTurk) labour platforms in Canada. Yann (2018) in Belgium explored the applicability of fit

between work-nonwork boundary management. Kim (2014) conducted a study in the United States to establish the relationship dynamics that exist between boundary management and virtuality of work, organizational climate, and organizational identification. Ellen *et al*. (2012) conducted a study in the United States to enhance the theoretical and practical understanding of work-nonwork boundary management by adopting a person-centered approach and emphasized the need to consider the multidimensional nature of boundary management.

However, the studies reviewed above are not without limitations. For instance, David's (2018) study used a small sample size, which weakened the generalizability and robustness of the findings. Furthermore, the reliance on self-reported data introduced potential biases related to accuracy and social desirability. Maria's (2020) study examined only one dimension of boundary management, which is work-family segmentation. Elmira and Samia (2021) was a case study which is unsuitable for generalization. Christin's (2013) study focuses on how people manage boundaries between work and personal life, but it did not establish the causal relationship between boundary management and work-life balance. Stefanie's (2020) study utilized a small sample of four German participants, which renders the study unfit for generalization. Danyelle's (2023) study used a descriptive research design that doesn't reveal a cause-and-effect relationship between study variables. Wepfer *et al* (2018) study focused on implications of employees' work-to-life boundary enactment for well-being, but did not establish the causal link between boundary management activities and employee work-life balance. Adisa *et al*., (2022) study looked at how COVID-19 affected boundary management activities rather than establishing a causal link between boundary management and work-life balance. Besides, a small sample of mere 25 participants renders generalization impossible.

Dexiang *et al*. (2023) examined how flexibility in family boundaries affects employee work engagement, but did not link boundary management issues with employee work-life balance. Yann Bogaerts' (2018) study was on the applicability of fit between work-nonwork boundary

management, but did not explicitly link boundary management activities to work-life balance. Moreover, the majority of reviewed studies (David, 2018; Maria et.al., 2020; Elmira and Samia, 2021; Christin, 2013; Stefanie, 2020; Molly, 2022; Wepfer *et al*, 2018; Adisa *et al*., 2022; Dexiang *et al*., 2023; Isabella and Johannes, 2023; Yann, 2018; Kim, 2014; Ellen *et al*., 2012) were done in developed countries like the USA, UK, Germany, China and Belgium whose context and circumstances differ from developing African countries. Furthermore, studies reviewed (David, 2018; Maria et.al., 2020; Elmira and Samia, 2021; Christin, 2013; Stefanie, 2020; Molly, 2022; Wepfer *et al*, 2018; Adisa *et al*., 2022; Dexiang *et al*., 2023; Isabella and Johannes, 2023; Yann, 2018; Kim, 2014; Ellen *et al*., 2012) neither explicitly isolate boundary management practices such as integration, segmentation, nor establish a causal effect with work-life balance. Consequently, little is known about the status of boundary management practices and their effect on work-life balance, particularly in the context of the healthcare system.

2.2.3 Social norms and employees' work-life balance

Social norms entail the mutually constituted norms as well as behavioral possibilities upheld within a social network (Hechter & Opp, 2001). These rules are developed in the process of interpersonal communication and they are supported by the participants of the network where they are created. When they are not in accord with formal authority systems like laws and organizational regulations, they are strengthened by social machines, including the sanctioning by their peers, when they derail (Cialdini & Trost, 1998). Sanctions can be either external forced by the members of the group or internal applied by a person who expects to feel guilty or ashamed due to non-compliance (Gagn, 2007). In their study, Andrighetto, Grieco, and Tummolini (2015) also point out that social approval (along with the fulfillment of expectations of other people) also contributes largely to norm adherence besides the concept of guilt aversion. In such a way, avoidance of any negative emotional consequences is not the only

motivation of compliance; instead, the desire to gain social esteem and acceptance is involved, too (Cialdini & Trost, 1998). The same is in line with the results provided by Srivastava and Beer (2005), which indicate that a favorable opinion of other people leads to the formation of more favorable self-judgments. Social norms in the workplace are those informal but powerful standards that are expected to be adopted by individuals on how to behave and how to exhibit certain attitudes when at work (Morrison, 1993).

As with general social norms, failure to comply with these workplace norms could be considered organizational deviance (Warren, 2003); hence, norm compliance is extremely important in the areas of integration and acceptance by employees. According to Brett and Stroh (2003) and Latan (2000), it has been noted that workplace norms are dynamic, where most of them have been intensified and not remaining in atrophy. The new staff will hardly question more demanding norms, e.g., longer working hours, so they will still grow as the personnel roster does (Warren, 2003). This pattern extends to norms around work availability, where expectations to remain reachable outside of official working hours are informally set and maintained by colleagues. Such norms exert social pressure on employees to conform in order to maintain group belonging and cohesion (Derks *et al*., 2015; Van Zoonen & Rice, 2017).

Kumar (2010) examined the work-life experiences of an invisible workforce with references to women migrant domestic workers in Malaysia. The study was a qualitative research design that collected data using interviews that were conducted on 13 women from Indonesia and the Philippines. Data was analyzed using thematic analysis. The study established that working as migrant domestic workers enabled women to support their families back in their country. The study also established that work-life balance, which is centered around women, affected their ability to perform their multiple duties as migrant domestic workers and absent mothers. The study provides empirical gaps that need to be considered in other aspects of work-centered life,

such as time management, work culture, work schedule, and working hours. This study filled the gap by expanding the conceptual framework and operationalization of time management, work culture, and work schedule in a local context.

Boyar, Wagner, Petzinger, and McKinley (2016) conducted a study in Poland to explore how specific family roles influence employee outcomes and behaviors. The research focused on two key family roles—financial provider and caregiver—and examined their effects on four key variables: job performance, absenteeism, life satisfaction, and partial absence. The study adopted a descriptive research design that collected data with the aid of questionnaires. The study hypothesis was assessed using a structural model, and analysis was done using LISREL. The study findings showed that there is an impact of family roles on employee absenteeism and life satisfaction, as well as limited support of the moderating impact of core evaluation services. The study also established that life satisfaction was significantly impacted by family roles and influenced by job performance. The study presents a contextual and methodological gap, and there is a need to replicate such a study in a local context and fill the gap by shifting the focus to objectively measure social norms programs concerning work-life balance.

Wilk (2013) was a qualitative research study that was aimed at examining the work-life experience of university administrators at Plains University, which is a privately owned, general doctoral-granting university in the Northeastern United States. The research aimed at investigating how administrators moved in and out of work-life boundaries and to what extent such experiences could be influenced by organizational subcultures and norms at workplaces. As the study found out, attainment of work-life balance remained a major task faced by many administrators, but it was usually driven by loose norms, and not institutionalized support. Without uniform work-life policies, the level of balance achieved by the administrators often varied depending on individual supervisors' discretion and attitude. More so, the differences across different departments and divisions were observed to be high, and it could be possible

to state that the employee perceptions and practices related to work-life integration concerning organizational subcultures were substantial. Wilk encouraged a formulation of work-life balance policies in order to establish a more balanced and accommodating environment. The study was also used to solve some contextual and informational gaps as it helped to provide a notion that social norms are often self-governed, motivated by personal feelings of shame or guilt, but not by social force.

Ren and Caudle (2020) conducted a comparative study in the United Kingdom and China examining how gender-based challenges impact the balance between academic careers and family life. The research pursued three core objectives: to assess gender disparities in work-family experiences across both cultural contexts; to investigate contextual factors influencing gendered career trajectories and work-life balance; and to identify the broader implications of these patterns from a gender-sensitive perspective. Employing a multilevel and cross-national analytical framework, the study revealed that individual coping strategies among academics are shaped by a complex interplay of institutional, national, and cultural factors.

The findings underscored that personal academic capacity for balancing work and family is not only individually constructed but also deeply embedded within broader systemic influences. However, the study highlighted the need for further inquiry into escalating work norms and organizational demands, suggesting that an increasing work input trend is driven by continually rising, rather than static, expectations. This signals a contextual and methodological gap particularly the lack of cross-cultural research on work-life balance policies and structures warranting localized investigations into institutional practices and gendered work-life dynamics.

In a related study, Emin *et al*. (2023) explored how social support affects individuals' capacity to maintain work-life balance among university staff in Turkey. The study investigated the interplay between social support, psychological well-being, and work-life balance using a

sample of 277 participants from Sakarya University. Findings revealed a paradoxical negative correlation between perceived social support and work-life balance, whereas psychological well-being demonstrated a positive relationship with work-life balance. Mediation analysis confirmed that psychological well-being partially mediated the relationship between social support and work-life balance. These results suggest that when social support is insufficient or misaligned, it can increase occupational stress and deteriorate psychological well-being, thereby diminishing one's ability to maintain a healthy work-life balance. This is particularly relevant in people-oriented professions, where the absence of meaningful workplace support can foster isolation and reduce resilience. The study highlights the critical need to examine not only structural support systems but also the psychological mechanisms that underlie successful boundary management. The results obtained show that interventions designed to increase the work-life balance of health workers should focus on increasing social support resources and psychological well-being in the workplace.

Sultan, Kanwal, and Gul (2017) conducted a qualitative study in Iran to explore how supervisor-provided work-family support influences employees' work-life balance (WLB). Using interviews and written feedback regarding employee leave arrangements, the researchers investigated the role of social support from supervisors in enhancing employees' ability to manage family responsibilities. The findings revealed that when supervisors actively acknowledged and supported employees' family obligations—such as by permitting flexible work schedules or approving leave for personal emergencies—employees reported improved trust, psychological well-being, and reduced work-life tension.

Such support could be instrumental in fostering a more harmonious balance between work and nonwork domains. Interestingly, in the Iranian context, where work and family roles are traditionally treated as distinct and non-overlapping, supervisor support for family-related needs was not commonly expected. As a result, when such support was offered, it was highly

valued by employees and perceived as an important contributor to improved work-life balance. Despite its valuable insights, the study's reliance on qualitative methods limits the generalizability of its conclusions. The authors highlight the need for further research employing quantitative approaches to validate and broaden the understanding of the relationship between supervisory support and WLB in culturally conservative contexts.

Rastogi and Bansal (2012) explored the influence of social norms and gender roles on work-life balance in the Indian context, with particular emphasis on the impact of spousal support on the career trajectories of married working women. Utilizing a cross-sectional survey design, the study employed descriptive statistics, correlation, and regression analyses to assess the relationship between domestic support and career outcomes. The results indicated that support from spouses, particularly in relation to childcare and household duties, significantly mitigated work-life conflict, enabling women to focus more effectively on their professional roles. Conversely, the absence of such support was found to hinder career progression, with many women prioritizing family responsibilities over professional advancement. One of the highest-rated items in the study's descriptive analysis emphasized that women professionals often fail to realize their full potential due to the burden of familial duties. The findings underscore the powerful influence of deeply ingrained gender norms in shaping women's career decisions and the distribution of domestic responsibilities. Despite offering valuable insights, the study primarily centers on spousal support, thereby highlighting an empirical gap in the exploration of broader social norms. The present study aims to address this gap by examining additional facets of social norms and their role in shaping perceived employee commitment and dedication in the workplace.

Mona & Payyazhi (2014) examined organizational culture's influence on work-life balance at an Abu Dhabi bus assembly firm in the United Arab Emirates. The premise behind their research was to examine whether or not a link exists between organizational culture and

employee work-life balance. To test the hypothesis that organizational culture does affect WLB, they conducted both primary and secondary research. On the other hand, to gather primary data, they conducted a focus group and survey. The premise behind conducting the focus group was to gauge the organizational culture within Hafilat. The findings revealed that though the provision of WLB is not official the flexibility inherent in the organization comes from the owners and trickles its way down, illustrating the top-down acceptance of WLB that is needed to allow management to utilize WLB policies to help their employees. Despite their research tentatively proving the relationship between organizational culture and WLB, however, there are several limitations to be carefully weighed before coming to a conclusion. Firstly, company performance and profitability were not taken into consideration. Secondly, it was difficult to me*et al*l managers at the same time, which is why they used convenience sampling. This leads to the limitation of not being able to represent the whole company's opinion and compile thorough results. While the study acknowledges the role of organizational culture in shaping work-life balance, it fails to consider the broader influence of societal norms on individuals' perceptions and choices. The present study addresses this gap by examining how prevailing societal expectations shape employees' decisions about integrating work and personal life within the organizational setting.

Zhiling Sun (2021) examined individual women managers' perceived work-life balance: A work-values perspective in Australia. The research sought to add new insights to the accumulated knowledge of WLB by focusing on a specific worker group and from a specific perspective: women managers in Australia from the perspective of work values. The research was conducted using a qualitative case study design and an abductive process, guided by the philosophical stance of interpretivism. The research methodology focused on data triangulation through in-depth interviews, comprising demographic data, open-ended exploratory inquiry data, and critical incident data. Twenty individual women managers participated in the research

and shared their views, perceptions, and stories of WLB experiences. Several data analysis methods and techniques were adopted to produce data variety for this case study. The findings of the study on work values helped to provide unique insights into women managers' work goals and motivations, their views of the meanings of WLB, and the influence of value congruence in their WLB experiences. While the study offers meaningful insights based on work values, it does not adequately explore the influence of social norms on work-life balance. The current study will fill this gap by investigating the influence of cultural norms on the work-life experiences of employees.

Larson, Sheffield, Trail, and Hill (2008) explored the influence of the work-family interface on fertility decisions in Singapore. The study aimed to examine variations in work and family life characteristics among families with different numbers of children and to identify the personal, familial, and occupational factors that differentiate those intending to have more children from those who do not. Employing both cross-sectional and longitudinal designs, the researchers collected data from 200 participants and analyzed it using cross-lagged path analysis. Findings revealed that individuals with only one child reported higher levels of work-to-family and family-to-work conflict than those with two or more children likely due to the substantial adjustments required during the initial transition to parenthood. Financial constraints also emerged as a significant factor limiting the attainment of ideal family sizes for many Singaporeans. However, while the study effectively illuminated the challenges of early parenthood, it did not account for individual differences in managing these transitions, nor did it sufficiently examine the influence of societal norms on the availability and perception of support. The present study seeks to bridge this gap by investigating how social norms shape family size preferences and the negotiation of work and family roles.

(Malik et al 2008) conducted a study focusing on employees from 17 banks in Islamabad and Rawalpindi to examine the work-life interface and the adaptation of work hours in the Pakistani

context. The study adopted an exploratory design and used snowball sampling to recruit 30 professional women, including both employed and self-employed individuals. Data were collected through structured interviews and analyzed using content and thematic analysis. The findings revealed that extended working hours and inadequate social support significantly contribute to work-life imbalance. The study also pointed out that many bank employees in Pakistan work beyond official hours due to undefined contract terms and work overload. Although high workloads and long hours do not necessarily lead to work-family conflict on their own, conflict emerges when simultaneous demands from both domains intensify.

The study concluded that employers and employees need to collaboratively develop work-life balance policies that consider evolving work demands and changing family dynamics. While the study offers valuable insights, it is constrained by its exclusive focus on women and reliance on snowball sampling, which may limit the generalizability of its findings. Additionally, it falls short in examining the broader cultural and societal norms that underpin the work-life challenges experienced by participants. These limitations point to both contextual and methodological gaps, underscoring the need for further research across diverse local contexts. Specifically, future studies should investigate how cultural and societal expectations influence employees' work-life balance experiences, thereby providing a more holistic understanding of the phenomenon.

(Razak et al 2010) investigated the relationship between parental demands, spousal support, and family involvement in shaping the dynamics of work-family interference. The study aimed to determine whether spousal support plays a critical role in mitigating the extent to which family responsibilities encroach upon professional obligations. Targeting married administrative staff at the University of Punjab, the researchers employed a mixed-methods approach. Quantitative data were gathered through an online survey adapted from a validated source, which remained open for three months and utilized convenience sampling. The

qualitative component involved in-depth interviews. Findings revealed that the spouses of medical officers generally acknowledged and accepted the professional demands placed on their partners, often assuming greater responsibility in managing household duties. Moreover, the results demonstrated a significant and positive relationship between parental demands and both work-to-family and family-to-work interference, suggesting that high family expectations can exacerbate bidirectional role conflict. Furthermore, while family involvement was strongly linked to work-related interference, it did not show a significant connection with interference from work into family life. The study presents a contextual, empirical, and methodological gap and the need to consider cross-cultural Work-life balance that explores a more diverse sampling approach and examines the cultural factors influencing work-family interactions among a broader range of participants.

Mwangi, Boinett, Tumwet, and Bowen Dave (2017) examined the impact of work-life balance on employee performance within institutions of higher learning, using Kabarak University in Kenya as a case study. The primary objective was to assess how work-life balance affects employee performance, with specific emphasis on the influence of work-family priority conflicts and the role of employee assistance programs (EAPs). The study employed a descriptive research design and relied on primary data collected through structured questionnaires. The target population comprised 244 employees, from which a sample of 70 participants was drawn. Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS), with results presented in tabular format alongside percentage distributions. Chi-square tests were used to determine the relationship between independent and dependent variables. The findings indicated that conflicts between work and family priorities negatively influenced employee performance. However, the study revealed a gap in the exploration of institutional mechanisms or structured interventions to address these conflicts. While it identified the problem, it did not sufficiently investigate actionable EAPs or

organizational policies aimed at promoting work-life balance. The current study seeks to bridge this gap by examining strategic policy measures that can support employees in harmonizing work and personal responsibilities, thereby enhancing overall performance.

John (2017) conducted a study investigating the work-life balance of employees and its influence on various work-related factors in nationalized banks across India. The research revealed that employees generally reported low levels of perceived work-life balance. Despite this, a positive correlation was found between work-life balance and key job-related outcomes such as job satisfaction, service delivery, job commitment, competency, target achievement, and career development. Conversely, work-life balance was negatively associated with factors like work-related stress and absenteeism. The study was conducted among employees from five nationalized banks in Madurai—namely, State Bank of India, Indian Bank, Indian Overseas Bank, Canara Bank, and Bank of Baroda. The research concluded that work-life balance is a critical concern for employers and recommended strategic interventions, including flexible work schedules, leave management systems, dependent care assistance, and supportive general services to enhance employee well-being and performance.

Similarly, Sagherian and Rose (2020) conducted a cross-sectional study in the United States to examine how extended working hours, daytime napping, and sleep duration impact cognitive performance in older adults. Data were collected between 2013 and 2014 from a sample of 308 respondents, focusing on work hours, sleep-related behavior, and cognitive function. Findings showed that 73% of respondents worked more than 40 hours weekly and averaged six hours of sleep per night, with 43% reporting regular daytime napping. However, there was no statistically significant difference in cognitive performance between those who napped and those who did not. The study identified empirical and contextual gaps, calling for longitudinal research to assess the long-term effects of work schedules and rest patterns on aging employees.

Simard (2011) explored employee perceptions and usage of work-life balance programs, focusing on stress management strategies related to work and personal obligations. Utilizing a narrative inquiry design, the study involved in-depth qualitative interviews to understand how employees access resources, seek social support, and interpret organizational flexibility. The findings highlighted that employees highly value flexible working conditions and empathetic supervisors. Supportive workplace environments—particularly in terms of flexible scheduling and supervisor understanding—were found to significantly enhance employees' sense of control, thereby reducing work-family conflict. The study underscored the pivotal role of leadership in promoting the successful implementation of work-life balance initiatives.

Carnicer, Sánchez, Pérez, and Jiménez (2014) conducted a quantitative study in Southern Europe to investigate the antecedents of work-life conflict. The research employed a structured questionnaire administered to a sample of 1,182 Spanish employees. Using bivariate analysis followed by multivariate regression, the study identified significant factors contributing to work-life conflict. The results indicated that two categories of antecedents personal and job-related significantly influenced the experience of work-life conflict. Although gender was not found to be a definitive determinant, notable differences emerged in the experiences of work-family conflict between men and women. Furthermore, the study emphasized the impact of family-related perceptions such as the importance of family alongside job demands, flexibility, and ingrained gender roles, on the degree of work-life conflict. Educational attainment and functional mobility also emerged as relevant predictors. Interestingly, job status and access to social benefits were not found to significantly influence work-life conflict, challenging assumptions about their role in mitigating such tensions.

From the broader review of empirical literature, it is evident that social norms have a considerable influence on employees' work-life balance (WLB). For instance, studies (Rastogi and Bansal, 2012) explored the influence of social norms and gender roles on work-life balance

in the Indian context and discovered that support from spouses, particularly in relation to childcare and household duties, significantly mitigated work-life conflict, enabling women to focus more effectively on their professional roles. Elsewhere, Razak et. al., (2010) studied whether spousal support plays a critical role in mitigating the extent to which family responsibilities encroach upon professional obligations, and found that the spouses of medical officers generally acknowledged and accepted the professional demands placed on their partners, often assuming greater responsibility in managing household duties.

Kumar (2010) examined the work-life experiences of an invisible workforce and established that work-life balance, which is centered around women, affected their ability to perform their multiple duties as migrant domestic workers. Boyar et. al. (2016) conducted a study in Poland to explore how specific family roles influence employee outcomes and behaviors, and the results showed that there is an impact of family roles on employee absenteeism and life satisfaction, as well as limited support of the moderating impact of core evaluation services. Wilk (2013) was a qualitative research study that was aimed to examine the work-life experience of university administrators, and the results showed that attainment of work-life balance remained a major task faced by many administrators, but it was usually driven by loose norms, and not an institutionalized support. Emin *et al*. (2023) explored how social support affects individuals' capacity to maintain work-life balance among university staff in Turkey and found that when social support is insufficient or misaligned, it can increase occupational stress and deteriorate psychological well-being, thereby diminishing one's ability to maintain a healthy work-life balance.

However, existing studies display significant limitations in terms of conceptual framing, contextual relevance, and methodological rigor. Methodologically, prior studies employ a range of designs, each with limitations. For instance, qualitative case studies such as that of Sun (2021) offer rich, context-specific insights but lack generalizability. Conversely, cross-

sectional and time-lagged studies (e.g., Larson *et al*., 2008; Malik & Khalid, 2008) are constrained by sample composition and potential selection biases. Study (Rastogi and Bansal, 2012) focused primarily on spousal support, thereby highlighting an empirical gap in the exploration of broader social norms such as social responsibility, social desirability, and agreeableness. Razak et. al. (2010) utilized convenience sampling, which was unfit for generalization.

Wilk's (2013) study sought to establish how work-life experience is influenced by organizational subcultures and norms at workplaces, rather than establishing a causality between social norms and work-life balance. Contextually, the literature is largely concentrated in non-African settings such as Australia, Singapore, Pakistan, Turkey, and Malaysia failing to consider the distinct socio-cultural and institutional dynamics of Uganda. Conceptually. Moreover, many studies (Larson *et al*., 2008; Malik & Khalid, 2008; Razak et. al., 2010; Rastogi and Bansal, 2012) focus on isolated aspects of social norms such as work values or gender roles without integrating critical dimensions of social norms such as social responsibility, agreeableness, and social desirability. Consequently, little is known about the status of social norms and their resulting influence in the context of Health healthcare system in Uganda.

2.2.4 Summary of Gaps

Despite considerable academic attention, critical gaps persist in understanding how spillover effects, boundary management, and social norms jointly influence employees' work-life balance (WLB) in national referral hospitals in Kampala, Uganda. From a methodological standpoint, most existing studies employ cross-sectional or time-lagged designs with notable limitations in sampling strategies. These shortcomings constrain the ability to draw causal

conclusions and reduce the generalizability of findings. Furthermore, inconsistencies in sample sizes across studies compromise the reliability and validity of results.

Geographically, much of the prior research has centered on Western and Asian contexts, paying insufficient attention to the unique socio-cultural, institutional, and occupational dynamics of Uganda's healthcare sector. Contextually, the literature has predominantly explored WLB in corporate, academic, or remote work environments, offering limited insights into the high-pressure, emotionally demanding, and inflexible nature of healthcare work in referral hospitals. These characteristics may significantly influence how employees manage work-life boundaries and experience spillover.

Conceptually, most studies examine spillover effects, boundary management, and social norms as isolated variables, thereby overlooking their potential interdependence and combined impact on work-life outcomes. Theoretically, dominant frameworks fall short of integrating these constructs in a way that reflects the lived realities of healthcare professionals, particularly in low-resource settings.

As a result, there is limited empirical evidence on how positive spillover, adaptive boundary management strategies, and social norms collectively shape work-life balance among staff in Uganda's national referral hospitals. To address these methodological, contextual, conceptual, and theoretical gaps, this study investigates the interrelationships among these factors. By doing so, it aims to provide a more integrated and contextually relevant understanding of work-life balance within Uganda's healthcare landscape.

CHAPTER THREE

METHODOLOGY

This chapter outlines the research methodology adopted in this study. It details the research design and underlying philosophical orientation that guided the investigation. The chapter further describes the target population, sampling techniques, and the rationale for the selected sample size. Additionally, it presents the methods and instruments used for data collection, while addressing issues of reliability and validity. The procedures used for data analysis are also explained, followed by a discussion of the ethical considerations adhered to throughout the research process.

3.1 Research Design

A research design provides a systematic framework for investigating a research problem. It defines the overall approach by specifying the type of study, data categories, techniques for collecting data, and the methods used to analyze it (Kothari, 2004). This study utilized a quantitative research paradigm, which was well-suited to the researcher's preferences and aligned with the study's objectives (Creswell, 1994). Quantitative research is grounded in the positivist tradition, which emphasizes empirical observation, objectivity, and the identification of causal relationships between variables (Schiffman & Kanuk, 2009).

The positivist worldview assumes that an objective reality exists independently of individuals' interpretations and that it can be studied through systematic measurement. Guided by this paradigm, the study investigated how spillover effects, boundary management, and social norms relate to employees' work-life balance. In accordance with the philosophical foundations of positivism, a correlational survey research design was employed. This design is effective in identifying the strength and direction of relationships between measurable variables (Mugenda & Mugenda, 2003). The survey method was particularly appropriate as it allowed

the researcher to gather data at a single point in time, offering insights into the current conditions and relationships among the studied variables (Chava & Nachmias, 1996).

The correlational design aligns with studies like Musinguzi et al. (2018), which used correlation to assess stress and turnover ($r = 0.65$), and Kossek et al. (2021), which examined boundary management effects ($R^2 = 0.70$). This design supports robust statistical analysis of variable relationships ($R^2 = 0.780$) in Uganda's healthcare.

The Spillover Theory served as a theoretical lens for the study and complemented the critical realist philosophical approach. Critical realism, which bridges positivism and realism, supports a quantitative orientation by acknowledging that real-world phenomena like work-life balance are observable and measurable. From this ontological standpoint, spillover effects are treated as objective occurrences that can be quantified. This approach justified the use of structured questionnaires to assess both positive and negative spillover, thus generating reliable, empirical evidence about employees' experiences in balancing professional and personal responsibilities.

3.3 Population of Interest

A population is defined as a specific group of people, events, or elements that a study aims to investigate and from which conclusions are drawn and applied to a broader context (Asiamah et al., 2017). The target population for this study was 2914 individuals that included health workers such as professional nurses, enrolled nurses, midwives, doctors, clinical officers, laboratory technicians, caregivers, psychiatrists, support staff, and administrators in the five (5) national referral hospitals in Kampala, as shown in Table 3.1. Any health worker outside this specification will consequently be excluded.

3.2 Area of Study

There are five (5) national referral hospitals in Uganda, Kampala Central, which are selected for this study (Uganda Ministry of Health, 2021), Report to Parliament: State of Public

Healthcare Service Delivery in Uganda. The study was conducted in five national referral hospitals situated within Kampala, the central region, and the capital city of Uganda. Kampala, Uganda's capital and most populous city, had an estimated population of 45.9 million according to the Uganda Bureau of Statistics (UBOS, 2024). Geographically, the city is positioned at 0°19′N latitude and 32°35′E longitude, with an elevation of approximately 3,900 feet (1,189 meters) above sea level. Often referred to as the "City of Hills," Kampala extends over ten prominent hills that shape its unique topography.

For the purpose of this study, five key national referral hospitals were selected: Mulago National Referral Hospital, Kiruddu National Referral Hospital, Kawempe National Referral Hospital, Butabika National Referral Hospital, and Naguru General Hospital. These facilities were chosen based on their strategic importance in Uganda's healthcare system, the critical services they provide, and the high level of public trust and responsibility associated with their operations. Their proximity to the city center varies: Mulago is approximately 6 kilometers away, Kiruddu 5 kilometers, Kawempe 9 kilometers, Butabika 12 kilometers, and Naguru about 4 kilometers. Their inclusion in this research reflects both their functional diversity and their central role in delivering comprehensive healthcare services to Kampala's urban population.

As key pillars in a country's healthcare system, these referral hospitals operate under government regulations and public scrutiny. The high-pressure environment of healthcare work makes these institutions ideal for exploring how spillover effects from meaningful work contribute to employees' overall well-being, complicated interplay of social norms sheds light on the cultural factors that influence work dynamics and the coping mechanisms adopted by employees to strike a balance between their professional and personal lives (Haar *et al*., 2014).

Table 3.1: Accessible Population

Categories	Kawempe	Kiruddu	Mulago	Naguru	Butabika	TOTAL
Doctors	60	156	167	66	100	549
Nurses	99	260	278	110	168	915
Clinical Officers	37	97	103	41	62	340
Administrators	4	10	11	4	7	36
Lab Technicians	22	57	61	24	36	200
Midwives	30	80	85	34	51	280
Caregivers	19	51	54	21	34	179
Support Staffs	26	67	72	28	44	237
Psychiatrists	19	51	54	21	33	178
TOTAL	**316**	**829**	**887**	**349**	**533**	**2914**

Source: Ministry of Health, Human Resources for Health Audit Reports and Annual Health Sector Performance Report, 2019/20

3.4. Sampling Strategy and Sample Size

3.4.1 Sampling Technique

The study utilized a two-stage sampling strategy to ensure a representative and unbiased selection of healthcare workers from Uganda's national referral hospitals. In the initial phase, the researcher utilized proportionate stratified random sampling to categorize the total population of 2,914 healthcare workers into uniform subgroups according to their professional roles. These strata included nurses, doctors, clinical officers, administrators, and other key professional groups working across the five national referral hospitals in Kampala. The sampling frame was constructed using official human resources data from the Ministry of Health's 2019/20 reports, ensuring an accurate representation of the workforce distribution.

During the second stage, a simple random sampling method was utilized within each occupational stratum to ensure that all healthcare professionals had an equal probability of selection. A total of 352 respondents participated in the study, with the sample size calculated using Yamane’s (1967) formula, assuming a 95% confidence level and a 5% margin of error. To preserve the sample’s representativeness, participants were allocated proportionally across

the different professional categories, in line with their actual distribution within the hospital workforce, as guided by the proportionate stratification technique described by Stattrek (2012).

This hybrid sampling methodology combines two or more distinct sampling techniques to create a more effective, balanced, or comprehensive sample than a single method can achieve alone. The hybrid sampling methodology offered several scientific advantages. The stratified approach ensured adequate representation of all professional categories, including smaller subgroups that might have been overlooked in a simple random sample. Meanwhile, the random selection within strata minimized potential selection bias while enhancing the generalizability of findings across Uganda's national referral hospital system. The methodological rigor in sample design strengthened the study's validity, allowing the researcher to confidently analyze work-life balance challenges across different healthcare professions with appropriate statistical power. By maintaining proportional representation and random selection principles, the sampling strategy supported robust conclusions about the diverse experiences of healthcare workers in these high-stress clinical environments.

3.4.2 Sample

According to Kock and Lynn (2012), a sample refers to a limited yet representative subset of individuals or items drawn from a larger population for the purpose of analysis. In this study, the sample size was established using Yamane's (1967) formula, which offers a simplified approach for determining appropriate sample sizes at a 95% confidence level. As noted by Israel (1992), this formula is especially suitable for research involving large populations that may fluctuate during the course of the investigation.

The size of the sample is determined as follows;

$$n = \frac{N}{[1 + N(e^2)]}$$

In which,

In this formula, *n* represents the sample size, *N* denotes the total population, and *e* refers to the margin of error, which was set at 0.05 in accordance with the study parameters.
Thus:

$$n = \frac{2914}{[1 + 2914(0.05^2)]}$$

$$n = 351.72$$
$$n \approx 352$$

3.4.2.1 Sample size for each Category of Employee

To ensure proportional representation of different categories of health workers, proportionate stratified sampling was used. The study applied the proportionate stratification formula provided by Stattrek (2012):

$$n_h = \left(\frac{N_h}{N}\right) * n$$

In which; n_h represents size of the Sample for each category h

Nh denotes size of the population for the Category h

N indicates total size of the population (= 2914)

n signifies total size of the Sample (= 352)

Table 3 2: Study Sample Size

Category	Kawempe	Kiruddu	Mulago	Nagura	Butabika	Total
Doctors	7	19	20	8	12	66
Nurses	12	31	33	13	20	109
Clinical Officers	5	12	12	5	8	42
Administrators	1	1	1	0	1	4
Lab Technicians	3	7	7	3	4	24
Midwives	4	10	10	4	6	34
Caregivers	2	6	7	3	4	22
Support Staffs	3	8	9	4	5	29
Psychiatrists	2	6	7	3	4	22
Total	**39**	**100**	**106**	**43**	**64**	**352**

Source: Ministry of Health, Human Resources for Health Audit Reports and Annual Health Sector Performance Report, 2019/20

3.4.3 Sampling Procedure

Healthcare workers were selected from the five national referral hospitals in Kampala using a stratified random sampling approach. The study included all five national referral hospitals, meaning no hospital was randomly selected or excluded. Within each hospital, health workers were grouped into strata based on their professional roles, and random sampling was then applied within each stratum to ensure fair representation. Out of a total target population of 2,914 healthcare workers, a sample of 352 was drawn using Yamane's (1967) formula. This method ensured representation across various health worker categories in the referral hospitals, thereby improving the study's reliability and the applicability of its findings.

3.5 Data Collection Methods

3.5.1 Data Type and Source

Structured questionnaires were used to gather primary data, with respondents completing them independently.

3.5.2 Procedure for Data Collection

Data collection instruments were prepared by the researcher. Preliminary visits were made to prepare for data collection. Due to the large number of respondents, the researcher recruited and trained five research assistants to assist in administering the questionnaire to the respondents. Data collection route schedules were prepared before seeking a research permit from the University and NACOSTI.

3.5.3 Data Collection Instruments

A questionnaire was developed in alignment with the research objectives to collect data. It comprised closed-ended questions designed to address the study's key inquiries.

3.6 Pilot Study

A pilot test was conducted as a preliminary step to assess the study's feasibility, duration, cost implications, potential risks, and unforeseen challenges before full-scale implementation (Van

Teijlingen & Hundley, 2001). To facilitate this calculation, a pilot study was carried out involving 30 respondents drawn from three hospitals St. Francis Hospital Nsambya, Mengo Hospital, and Rubaga Hospital which were excluded from the main study sample. The primary aim was to evaluate and refine the data collection instruments. The feedback obtained from these respondents was used to calculate the Cronbach's Alpha coefficient. According to Creswell (2009), a coefficient value above 0.7 indicates that the questionnaire is considered reliable.

Following the pilot test, necessary modifications were made to enhance the reliability of the questionnaire. Exploratory factor analysis was applied to assess the instrument's reliability and validity, using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity. The KMO test, performed in SPSS, evaluated sampling adequacy for multivariate analysis in line with the guidelines by Kaiser (1970, 1974). Bartlett's Test of Sphericity (Bartlett, 1954) was used to assess whether correlations among variables were sufficiently strong for analysis. As per Field (2000) and Kaiser (1974), a KMO value above 0.5 is considered acceptable, while Pallant (2013) recommends a minimum threshold of 0.67. A significance level below 0.05 on Bartlett's test indicates that the correlation matrix is not an identity matrix, thus supporting the suitability of the data for factor analysis (Pallant, 2013; Field, 2000). In this study, all variables met the required thresholds, affirming the data's readiness for further statistical evaluation.

The next step entailed factor extraction, which aimed to identify a smaller number of latent components that effectively summarize the relationships among the observed variables (Naziruddin Abdullah *et al*., 2016). The extraction method applied was the screen test, which retains all factors positioned above the inflection point or 'elbow' on the plotted graph (Cattell, 1996). Additionally, the questionnaire underwent pilot testing by administering it to a sample

of respondents prior to the actual data collection. Items that were found to be unclear, misleading, or overly sensitive were revised, refined, or removed altogether, following the guidance of Machuki (2011).

3.6.1 Validity

To establish content validity, the questionnaire was examined by academic supervisors from the School of Business at Maseno University, who evaluated its consistency with the study's objectives. Construct validity, which focuses on the connection between the research instruments and the underlying theoretical framework, was also considered. A validity assessment was conducted prior to administering the research instruments to determine whether the questions were appropriate for gathering the intended data. The Content Validity Index (CVI) was calculated by submitting a list of research objectives and questionnaire items to subject experts in the relevant field and questionnaire design.

Content validity was measured using the CVI formula, which is defined as the ratio of the number of valid items to the total number of items in the instrument, as shown below:

CVI = (Number of valid items) / (Total number of items in the tool)

Table 3.3 Validity Statistics of Variables

Description	Number of Items Before Pilot Study	Number of Retained Items	Content validity index
Spillover	23	21	0.913
Boundary	25	22	0.880
management	40	36	0.900
Social norms	28	27	0.964
Employee work-life balance	25.5	22.4	1.0886

Source: Primary data, 2024

Table 3.3 presents the validity statistics related to the study variables, showing the original number of items in each category, the number retained after the validation process, and the

resulting Content Validity Index (CVI). The CVI serves as a crucial indicator, evaluating the extent to which the items within a given scale accurately represent the construct they are designed to measure. Typically, a CVI score exceeding 0.8 is viewed as satisfactory, signifying strong content validity.

For the variable "Spillover," there were initially 23 items, of which 21 were retained, resulting in a CVI of 0.913. This high CVI suggests that the retained items are highly relevant and appropriately represent the concept of spillover. The strong validity score indicates that the items are likely to yield reliable and meaningful data regarding how spillover effects are perceived by respondents.

The "Boundary Management" variable originally consisted of 25 items, with 22 retained, yielding a CVI of 0.880. This score is above the acceptable threshold, indicating that the items effectively capture the essence of boundary management. While the CVI is slightly lower than that of Spillover, it still reflects a sound level of content validity, suggesting that the scale can adequately measure this construct. The "Social Norms" variable had an initial set of 40 items, with 36 retained, resulting in a CVI of 0.900. This strong validity score indicates a robust alignment between the items and the construct of social norms. The high CVI demonstrates that the items are well-defined and relevant, contributing to the reliability of any findings related to social norms in the study. The variable "Employee Work-Life Balance" started with 28 items, with 27 retained, achieving an impressive CVI of 0.964. This exceptionally high score indicates a strong correspondence between the items and the construct, suggesting that the scale is particularly effective in capturing the complexities of work-life balance. This level of validity is encouraging and underscores the importance of this variable in the study.

3.6.2 Reliability Test

As noted by Bolarinwa (2015), reliability refers to the extent to which a data collection instrument consistently and accurately measures the intended construct. This is typically assessed through internal consistency. In this study, the reliability of the questionnaire was determined using Cronbach's Alpha, which yields a coefficient between 0 and 1. A Cronbach's Alpha value of 0.7 or above is widely regarded as acceptable, indicating adequate internal consistency. Thus, the nearer the value is to 1, the more reliable the instrument is considered to be for research purposes.

Table 3.4 Summary of Cronbach Alpha Reliability Coefficients for study variables

Aggregated Variable	Number of items excluded	No. of items	Cronbach's Alpha
Spillover	3	21	0.834
Boundary management	3	22	0.717
Social norms	4	27	0.897
Employee work-life balance	3	27	0.894
Average			0.819

Source: Primary data (2024)

Table 3.4 provides a summary of the Cronbach Alpha reliability coefficients for various study variables, which are critical in assessing the internal consistency of the measurement scales used in the research. Reliability coefficients range from 0 to 1, with higher values indicating better reliability. A coefficient above 0.7 is generally considered acceptable, while above 0.8 is deemed good.

For the construct "Spillover," analysis revealed that 3 out of 21 items were eliminated, resulting in a Cronbach's Alpha of 0.834. This indicates a high level of internal consistency, confirming the reliability of the scale in measuring spillover effects. The removed items likely did not

enhance the scale's coherence, and their exclusion contributed to refining the instrument for greater precision in capturing the construct.

The "Boundary Management" variable initially included 22 items, with 3 items excluded during reliability analysis. This produced a Cronbach's Alpha of 0.717. While slightly below the optimal threshold of 0.8, the value still denotes an acceptable level of internal consistency. This suggests that the remaining items are sufficiently aligned to capture the concept, though enhancements to item formulation could further improve reliability.

In relation to "Social Norms," the final Cronbach's Alpha was 0.897 after omitting 4 items from the original 33. This reflects excellent internal consistency, demonstrating that the retained items effectively represent the social norms construct. The high alpha score suggests that respondents interpreted and responded to the items in a consistent manner, strengthening the reliability of the findings for this variable.

Lastly, for the "Employee Work-Life Balance" construct, 3 out of 27 items were removed, yielding a Cronbach's Alpha of 0.894. This high score signifies strong internal reliability, indicating that the items effectively capture the complex nature of work-life balance. The results affirm that the instrument is well-suited for assessing the perceptions and experiences of employees in this domain.

3.7 Data Analysis

Regression analysis was employed to quantify the data and identify causal relationships among variables. Correlational analysis was used to determine the strength and direction of associations between variables. Consequently, the study utilized a Likert scale for data analysis, as supported by Odek and Luke (2021).

3.7.1 Model Specification and Analytical Approach

This research utilized a two-level analytical framework to explore the factors influencing employee work-life balance. At the first level, three distinct regression models were applied, each evaluating the individual effects of the dimensions associated with the key theoretical constructs:

3.7.1.1 Spillover Model

Estimated the influence of affective, behavioral, and value-based spillover dimensions on work-life balance.

Model 1: specifically examined the relationship between work-life balance and the three spillover components.

$Y_W = \beta_s + \beta_A X_{Ai} + \beta_B X_{Bi} + \beta_V X_{Vi} + \varepsilon_i$ ………………………………………… (3.1)

In which: Y_W is Work-life Balance

β_s = Constant Term;

β_A = Beta coefficient for Affect

β_B = Beta coefficient for Behaviour

β_V = Beta coefficient for Value

X_A= Affect

X_B= Behaviour

X_V= Value

ε = Error term

3.7.1.2 Boundary Management Model

Analyzed the influence of integration, segmentation, and control strategies on balance outcomes.

Model 2: Work-life balance and boundary management

$Y_W = \beta_B + \beta_I X_{Ii} + \beta_S X_{Si} + \beta_C X_{Ci} + \varepsilon_i$ …… (3.2)

Where: Y Work-life balance

β_B = Constant Term;

$\beta_{I,}$ = Beta coefficient for work-life integration

β_S = Beta coefficient for work-life Segmentation

β_C = Beta coefficients for Boundary control

X_I= work-life integration

X_S= Work-life segmentation

X_C= Boundary control

ε = Error term

3.7.1.3 Social Norms Model

Evaluated how social responsibility, desirability, agreeableness shape balance perceptions

Model 3: work-life balance and social norms

$Y_W = \beta_S + \beta_R X_{Ri} + \beta_D X_{Di} + \beta_A X_{Ai} + \varepsilon_i$ …… (3.3)

Where: Y_W = Work-life balance

β_S = Constant Term;

$\beta_{R,}$ = Beta coefficient for social responsibility

β_D = Beta coefficient for social desirability

β_A = Beta coefficient for Agreeableness

X_R= Social responsibility

X_D= Social desirability

X_A = Agreeableness

ε = Error term

3.7.1.4 Consolidated Multiple Regression Model

The second tier employed a consolidated multiple regression model to simultaneously test the direct effects of the three core predictors - spillover (X_1), boundary management (X_2), and social norms (X_3) - while controlling for their interrelationships. To test the objectives of the study, model 3.4 was estimated using multiple regression.

The Combined model

$$Y_W = a + b_1X_{Si} + b_2X_{2i} + b_3X_{3i} + \varepsilon_i \quad \textbf{(3.4)}$$

Y_W = Work-life balance

β_W = Constant Term;

$\beta_{S,}$ = Beta coefficient for Spillover

β_B = Beta coefficient for Boundary management

β_N = Beta coefficient for social Norms

X_S= Spillover

X_B= Boundary management

X_N = Social Norms

ε = Error term

This hierarchical approach enabled both dimension-level examination of each construct and an integrated assessment of their relative predictive power.

3.8 Assumptions of the Regression Model.

3.8.1 Normality Test of the Residuals

To draw valid conclusions from a regression analysis, it is essential that the residuals exhibit a normal distribution. A normality test was therefore performed to assess whether the residuals from the regression model conformed to this requirement. This check is critical because the assumption of normally distributed errors forms the basis for making reliable statistical inferences in linear regression, such as interpreting p-values and constructing confidence intervals. In this study, normality was assessed using a Q-Q plot (Fig. 3.1), which served as a

diagnostic tool to examine the distribution of residuals for the model predicting Employee Work-Life Balance (EWLB).

The residuals displayed a symmetrical, bell-shaped curve, suggesting that they follow a normal distribution. Additionally, the mean of the standardized residuals was approximately zero, indicating that the model did not exhibit systematic prediction bias. These indicators supported the assumption of normality and validated the appropriateness of the statistical method used to explore the relationship between the predictor variables and outcomes related to work-life balance.

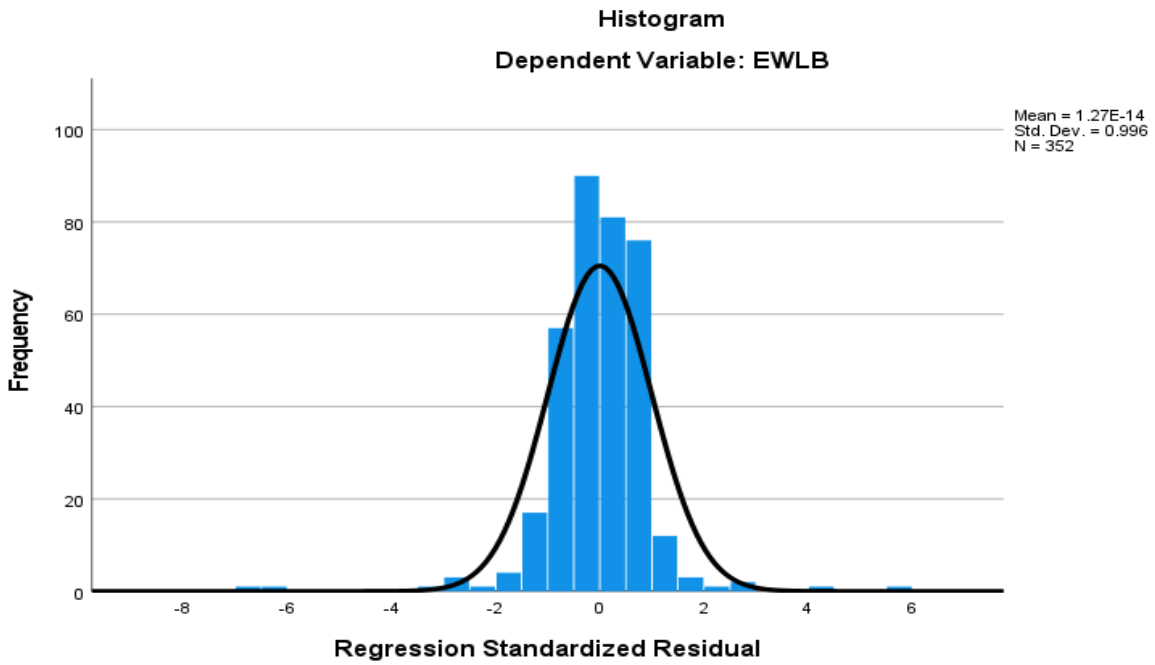


Figure 3.1*: Residual Distribution*

Examining the variance characteristics reveals additional strengthening of the model. The standard deviation of 0.996, nearly identical to the ideal value of 1 for standardized residuals, demonstrated that the scaling process was correctly applied. The tight clustering of residuals around the mean suggests homoscedasticity - the desirable condition of constant variance across all levels of your predicted values. This pattern indicated that the model maintained

consistent predictive accuracy regardless of whether employees scored high or low on the EWLB scale. The large sample size (N=352) reinforced these positive findings, as the Central Limit Theorem ensured the normality assumption holds even more firmly with such substantial data. The residual analysis offered robust evidence supporting the statistical validity and reliability of the study's findings regarding the influence of Social Norms, Spillover, and Boundary Management on work-life balance. The model not only explained a substantial portion of the variance in EWLB but did so in a way that m*et al*l necessary statistical requirements for valid interpretation.

3.8.2 Heteroscedasticity Test

Homoscedasticity refers to the condition where residuals are evenly dispersed across all levels of the predicted values, rather than clustering at some points and spreading widely at others. To verify this assumption, a heteroscedasticity test was conducted to determine whether the variance of the residuals remained consistent. This diagnostic procedure assessed two key assumptions of regression analysis: the constancy of residual variance (homoscedasticity) and the linearity of the relationship between the independent variables and the dependent variable, Employee Work-Life Balance (EWLB).

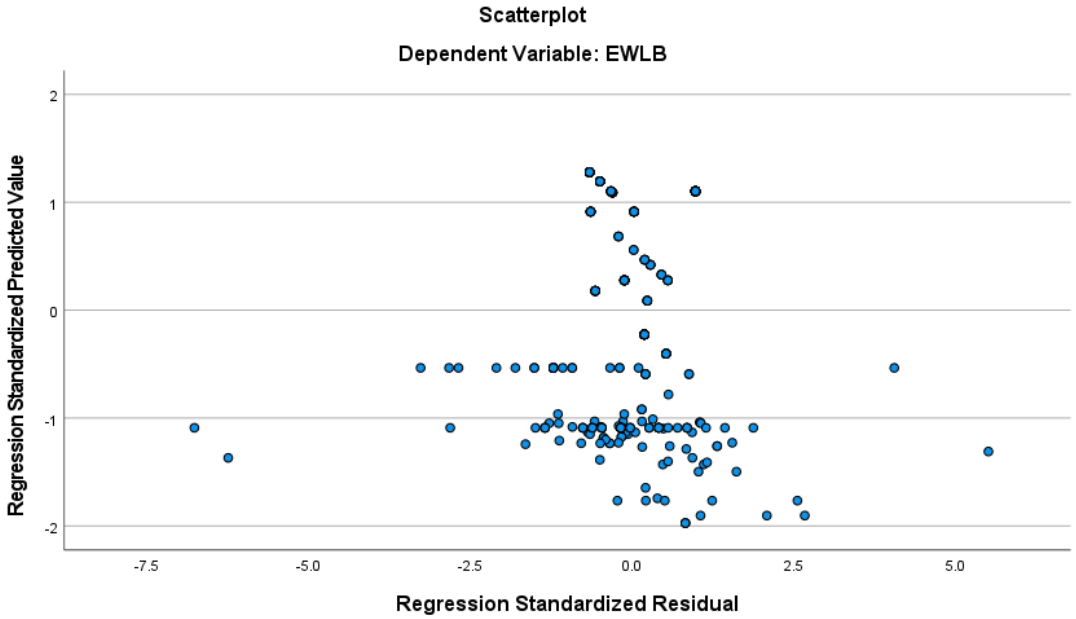


Figure 3.2*: Heteroscedasticity Scatterplot*

Employee Work-Life Balance (EWLB) was assessed using a scatterplot of standardized residuals against predicted values, which offered crucial insights into the validity of the regression model. This visual representation helped evaluate key assumptions such as homoscedasticity and linearity, ensuring the model's appropriateness for analyzing the relationship between predictors and EWLB. The random dispersion of residuals around zero across all predicted values forms a horizontal band pattern, which strongly suggests that the model met key regression assumptions. This pattern indicated no systematic bias in predictions, the consistent variance of residuals (homoscedasticity), and proper model specification without missing nonlinear relationships. The absence of any clear curvilinear pattern or funnel-shaped distribution confirms that the linear regression approach is appropriate for the data.

3.8.3 Multicollinearity Test

Multicollinearity, a critical concern in regression analysis, occurs when predictor variables exhibit high intercorrelations, potentially distorting coefficient estimates (β), p-values, and the interpretation of individual predictors' effects (Gujarati & Porter, 2009). This study employed two diagnostic approaches: First, Variance Inflation Factors (VIFs) were calculated for all predictors (VIF = $1/(1-R^2)$; Second, tolerance statistics (1/VIF) were examined. This study employed a two-tiered analytical framework to examine the determinants of employee work-life balance. The first tier consisted of three separate regression models (3.1, 3.2, and 3.3) that independently assessed the impact of each theoretical construct's dimensions.

3.8.3.1 Multicollinearity Test on Estimated Model 3.1

After estimating model 3.1, multicollinearity was tested using VIF and Tolerance levels. The results are presented in a table.

Model		Multi-collinearity Assessment Tolerance	VIF
1	(Constant)		
	Affect	.320	3.122
	Behaviour	.266	3.758
	Values	.236	4.232

a. Dependent Variable: EWLB

The collinearity diagnostics provide key insights into the relationships between *Work-Life Balance* and the *Spillover* construct variables (*Affect, Behaviour,* and *Value*) in the model. Tolerance values, which should ideally exceed **0.10** to indicate the absence of severe multicollinearity (Menard, 1995; Hair *et al*., 2010), are within acceptable limits for all predictors (*Spillover = 0.321*, *Boundary Management = 0.177*, *Social Norms = 0.184*). Similarly, the Variance Inflation Factors (VIF) for the spillover dimensions *Affect (3.122)*, *Behaviour (3.758)*, and *Values (4.232)* fall below the commonly accepted threshold of **10** (Kutner *et al*., 2004; O'Brien, 2007), further indicating that multi-collinearity does not pose a significant issue within the model.

3.8.3.2 Multicollinearity Test on Estimated Model 3.2

After estimating model 3.2, multicollinearity was tested using VIF and Tolerance levels. The results are presented in the table.

Model		Multi-collinearity Assessment Tolerance	VIF
1	(Constant)		
	WLI	.411	2.436
	WLS	.411	2.431
	BC	.452	2.214

a. Dependent Variable: EWLB

The collinearity diagnostics for the regression model, with Employee Work-Life Balance (EWLB) as the dependent variable, indicate no significant multicollinearity concerns among the predictors. The analysis examines three independent variables: Work-Life Integration

(WLI), Work-Life Segmentation (WLS), and Boundary Control (BC) using two key metrics: Tolerance and Variance Inflation Factor (VIF). According to established thresholds, a Tolerance value above **0.10** and a VIF below **10** suggest acceptable levels of multicollinearity. The results show that all predictors meet these criteria: WLI (Tolerance = 0.411, VIF = 2.436), WLS (Tolerance = 0.411, VIF = 2.431), and BC (Tolerance = 0.452, VIF = 2.214). Since none of the variables exhibit excessively low Tolerance or high VIF values, the study concluded that multicollinearity does not pose a problem in this model. This means each predictor contributes independently to explaining variance in EWLB without substantial overlap with other variables, ensuring reliable regression estimates.

3.8.3.3 Multicollinearity Test on Estimated Model 3.3

After estimating model 3.3, multicollinearity was tested using VIF and Tolerance levels. The results are presented in a table

Model		Multi-collinearity Assessment B	Tolerance	VIF
1	(Constant)	-.084		
	SR	.196	.260	3.842
	SD	.257	.319	3.137
	AGR	.515	.214	4.675

a. Dependent Variable: EWLB

The regression analysis examines how three key factors: social responsibility (SR), social desirability (SD), and agreeableness (AGR) influence employee work-life balance (EWLB). The collinearity statistics reveal important insights about these relationships. All predictors exhibit satisfactory tolerance values (SR = 0.260, SD = 0.319, AGR = 0.214), each exceeding the minimum threshold of 0.10, suggesting an absence of serious multicollinearity issues. Likewise, their corresponding variance inflation factor (VIF) scores (SR = 3.842, SD = 3.137, AGR = 4.675) are well below the cutoff point of 10, reinforcing that multi-collinearity does not undermine the model's robustness.

These findings indicate that each of the three factors independently contributes to explaining variations in work-life balance, with (Agreeableness) standing out as the most impactful. The lack of significant multicollinearity confirms that the regression estimates are dependable for assessing each variable's distinct influence on employee work-life balance (EWLB). For organizations seeking to improve EWLB, emphasis should be placed on promoting (Agreeableness) while also supporting social connections and encouraging self-discipline practices.

3.8.3.4 Multi-collinearity Test on Estimated Model 3.4

After estimating model 3.3, multi-collinearity was tested using VIF and Tolerance levels. The table below shows the results.

Table 3.5: Collinearity

Model		Statistics B	Tolerance	VIF
1	(Constant)	.184		
	Spillover	-.255	.321	3.111
	Boundary Management	.528	.177	5.660
	Social Norms	.641	.184	5.449

a. Dependent Variable: EWLB

The multi-collinearity diagnostics reveal that the three independent variables, Spillover, Boundary Management, and Social Norms, fall within acceptable limits. Their tolerance values (0.321, 0.177, and 0.184) are above the critical threshold of 0.10, indicating that none of the predictors exhibit problematic redundancy. Additionally, the Variance Inflation Factor (VIF) scores (3.111, 5.660, and 5.449) remain below the conservative benchmark of 10, suggesting that multi-collinearity is not substantial enough to compromise the integrity of the regression analysis.

3.9. Ethical Considerations

A research permit was obtained from the Maseno University Ethics Review Committee (MUERC) to authorize the study. In addition, formal access was granted by the selected national referral hospitals through an introductory letter. Participants were assured of confidentiality and privacy, with a clear explanation that the research was solely for academic purposes. To maintain anonymity, no names were requested on the questionnaires. The study's aims and objectives were explained to participants to provide clarity and encourage informed responses. Ethical standards such as credibility, authenticity, and trustworthiness were emphasized during the collection of quantitative data. Moreover, participation was entirely voluntary, and respondents were informed that they could choose not to answer any question without facing any form of pressure or obligation.

CHAPTER FOUR

RESULTS AND DISCUSSION

This section provides the analysis, interpretation, and discussion of the research findings.

4.1 Response rate

Table 4.1: Response rate

Response rate	Sample size	Response	Percentage
Returned copies of the questionnaire	352	352	100%

Source: Primary data (2024)

The remarkable 100% response rate achieved in this study stands out when compared to similar research conducted in Ugandan healthcare settings. The exceptional participation rate in this study likely reflects several key factors. First, the in-person distribution of questionnaires within the hospital setting significantly boosted compliance, as healthcare workers could complete surveys during work hours with minimal disruption. Secondly, the issue of work-life balance is particularly pertinent to hospital personnel in Uganda's national referral hospitals, where extended working hours and staff shortages are frequently experienced. Third, institutional support from hospital management encouraged participation, reducing reluctance.

4.2 Data Preparation

Preparing data is an essential step in survey analysis, ensuring that the information collected is reliable, consistent, and suitable for statistical examination. This section details the procedures followed in cleaning, coding, and validating the data for the study on Spillover, Boundary Management, and Social Norms influencing Employees' Work-Life Balance in National Referral Hospitals located in Kampala, Uganda.

4.2.1 Data Cleaning

4.2.1.1 Missing Data

The initial stage in preparing the dataset involved data cleaning, with the primary objective of ensuring that the data collected was both complete and dependable. As noted by Dong and Peng (2013), missing values are a frequent issue in statistical analysis, potentially leading to decreased data quality, limited reliability, and weaker generalizability of findings. Therefore, it is essential for researchers to assess the dataset before proceeding with analysis to identify patterns, frequency, and causes of missing responses and to address them appropriately. In this study, missing data were identified using SPSS statistical software.

Researchers agree that some degree of missing data is acceptable, depending on the sample size. However, exceeding certain thresholds can compromise the validity of statistical results (Schafer, 1999). While Schafer (1999) suggests a threshold of 5%, Bennett (2001) allows for up to 10%. In the current study, a stricter threshold of less than 5% was applied. For variables with under 5% missing data, mean substitution was used for continuous items, and mode substitution for categorical ones. Any variable with more than 5% missing values was removed from the analysis to ensure data quality. This method follows the recommendations of Hair *et al*. (2019), who advocate tailoring data handling techniques to the extent and pattern of missingness to minimize bias. The results showed minimal missing data across most variables. For example, no missing responses were reported for several items such as “Behaviour 1,” “Behaviour 2,” “Behaviour 3,” and “Values 1” through “Values 9.” This high rate of item completion is encouraging, as it improves the overall reliability of the study findings.

However, a few variables do show some degree of missing data. For example, "Integration 1" and "Integration 2" each have 1 missing response, which accounts for 0.3% of the total

responses. Similarly, "Affect 4" and "Affect 6" also have 1 missing response each, while "Value 6" has 2 missing responses, constituting 0.6% of the total. Notably, "Segmentation 5" has 1 missing response (0.3%). Although these percentages are relatively small, they indicate that a handful of items may require attention, particularly if the missing responses are not random. The low overall percentage of missing data suggests that the dataset is largely complete, which is beneficial for the integrity of the analysis. When missing data is minimal, the risk of bias in the results is reduced, and the findings can be considered more reliable. However, even small amounts of missing data can influence certain statistical analyses, particularly if the missingness is systematic rather than random.

4.2.1.2 Duplicate Responses

Additionally, duplicate responses were checked and removed based on unique identifiers such as employee ID or survey timestamps. This ensured that each response represented a unique participant, eliminating redundancy and potential bias in the dataset. According to Saunders *et al*. (2019), duplicate responses can arise from technical errors, such as multiple submissions by the same participant, or from intentional attempts to manipulate survey results. By identifying and removing duplicates, the dataset was streamlined to reflect genuine responses, thereby enhancing the reliability of the analysis. This step is particularly important in organizational studies, where an accurate representation of employee perspectives is crucial for drawing valid conclusions (Pallant, 2020). Finally, consistency in data entry was verified by standardizing responses, such as coding “Male” as 1 and “Female” as 2, and combining similar open-ended responses into single categories. These steps resulted in a clean and consistent dataset, free of significant missing data and duplicates.

4.2.2 Data Coding

The subsequent step involved data coding, where categorical variables were converted into numerical values to enable quantitative analysis. This process included assigning numerical

codes to categories for example, gender was coded as Male = 1 and Female = 2, while job categories were coded as Nurses = 1, Doctors = 2, Clinical Officers = 3, and so forth. A codebook was created to document all coding schemes for reference. Additionally, negatively worded items in the survey, such as "I find it difficult to balance work and personal life," were reverse-coded. This approach ensured that higher scores uniformly reflected positive outcomes, such as improved work-life balance. By systematically coding and aligning all survey items, the dataset was structured for accurate and consistent analysis. As noted by Field (2018), appropriate coding, including reverse coding where necessary, is essential to preserving the validity and reliability of survey data.

4.2.3 Data Validation

The final step in data preparation was **data validation**, which aimed to ensure the datas*et al*igned with the survey design and research objectives. The dataset was cross-checked against the survey questionnaire to confirm that all variables were included and accurately reflected the research goals, including the examination of spillover, boundary management, social norms, and work-life balance. Verardi and Croux (2008) indicate that an outlier is an extreme value when compared to other values in the same dataset. There is almost a consensus that the existence of outliers can significantly decrease the dependability of findings, and can result in misinterpretation of results and wrong conclusions (e.g., Ali, Sadam & Mohammad, 2022; Dong & Peng, 2013; Tabachnick & Fidell, 2007). It is thus recommended that, before running statistical tests of hypotheses, researchers should carry out statistical checks to find out if there are some outlying scores to remove or replace them (Kline, 2011). In this study, outliers were detected through the use of boxplots and z-scores to identify extreme values in continuous variables like work-life balance scores. Values considered reasonable were preserved, whereas those attributed to data entry mistakes were excluded from the analysis. This process ensured the dataset was free of distortions and ready for robust analysis. According to Tabachnick and

Fidell (2019), validating data for alignment with research objectives and managing outliers is a critical step in enhancing the accuracy and reliability of statistical analyses.

4.3 Demographics Analysis

This study analyzed key demographic data to understand the key demographic features of respondents.

Table 4.2: Detailed Respondent Demographics

Variable	Category	Frequency	Percentage (%)
Gender	Male	198	56.2%
	Female	154	43.8%
Age Group	Between 20–30 years	112	31.8%
	Between 31–40 years	158	44.9%
	Between 41–50 years	72	20.5%
	51 years and above	10	2.8%
Marital Status	Not yet Married	124	35.2%
	Married	196	55.7%
	Divorced	3	0.9%
	Widowed	29	8.2%
Job Role	Doctors	66	18.8%
	Nurses (Total)	109	31.0%
	Clinical Officers	42	11.9%
	Laboratory Technicians	24	6.7%
	Midwives	34	9.7%
	Caregivers	22	6.3%
	Administrators	4	1.1%
	Support Staff	29	8.2%
	Psychiatrists	22	6.3%
Work Experience:	Less than 5 years	97	27.6%
	Between 5 and 10 years	129	36.6%
	Between 11 and 20 years	78	22.2%
	Above 20 Years	48	13.6%

Data Source: Author's Fieldwork (2024)

The findings in Table 4.2 reveal significant patterns in gender distribution, age profiles, marital status, professional roles, and work experience that will inform subsequent analyses of workplace stressors and organizational policies. The gender distribution of respondents shows a predominance of male workers (56.2%) compared to female workers (43.8%), reflecting broader trends in Uganda's healthcare workforce composition. This gender imbalance suggests the need for particular attention to how work-life balance challenges may differ by gender,

especially regarding caregiving responsibilities and societal expectations. Age distribution data reveals a concentration of mid-career professionals, with 44.9% of respondents falling in the 31-40-year age bracket, followed by 31.8% in the 20–30-year range. This demographic pattern indicates that study findings will be particularly representative of challenges faced by healthcare workers navigating both career advancement and family responsibilities during their prime working years.

A survey involving 352 employees from national referral hospitals revealed significant patterns related to marital status, which have important implications for work-life balance (WLB) and institutional policies. A majority of the respondents (55.7%, n = 196) were married, indicating that more than half of the workforce balances professional responsibilities with marital and family obligations. Another considerable segment (35.2%, n=124) reported being single or never married, representing individuals who may encounter different types of work-life challenges often shaped more by societal expectations than direct caregiving demands. The survey also uncovered disparities in the divorced/widowed category: divorced individuals accounted for only 0.9% (n=3), whereas 8.2% (n=29) were widowed, suggesting that specific occupational or health-related factors might affect certain demographic groups more than others.

Marital status, whether single, married, divorced, or widowed, emerges as a critical demographic variable influencing WLB among employees in Uganda's national referral hospitals. It shapes how individuals experience spillover effects, manage work-life boundaries, and respond to prevailing social norms, all of which warrant close examination. The extent and nature of spillover differ based on marital status. Married employees, particularly women in

Uganda's traditionally gendered society, often encounter increased work-family spillover due to heavy domestic roles.

These dual pressures can result in negative bidirectional spillover, where stress from one domain impacts the other. Divorced or widowed employees often bear additional burdens, such as single parenting, financial constraints, and lack of partner support, all factors that may intensify negative spillover. The ability to establish and maintain clear boundaries between work and personal life also varies by marital status. Married healthcare professionals may find it challenging to separate work from home life, especially when managing childcare or family duties alongside demanding hospital roles. In contrast, those who are never married may enjoy greater autonomy in setting boundaries, For divorced or widowed employees, boundary management largely depends on access to extended family or alternative support systems, which may either aid in maintaining work-life separation or, if absent, lead to blurred boundaries and increased role strain.

Ugandan cultural context introduces additional layers of complexity to WLB experiences based on marital status. Married individuals, especially women, navigate strong societal expectations regarding domestic roles that may directly conflict with the demands of healthcare professions. Never-married employees encounter different pressures, including workplace assumptions about their availability and societal judgments regarding marital status. Divorced or widowed workers often face social stigma that compounds professional stresses, potentially leading to social isolation and reduced WLB satisfaction. These culturally embedded norms significantly influence how different marital groups experience and manage work-life integration.

Married healthcare providers frequently experience guilt from missing family engagements, never-married staff may lack adequate social support systems, and divorced/widowed workers often manage additional financial and caregiving pressures. These variations underscore the need for tailored organizational support mechanisms that account for employees' marital circumstances.

Professional role distribution highlights several important patterns in Uganda's healthcare workforce. Nurses emerge as the largest professional group (34.4%), with significant representation across all hospitals. The findings highlight distinct professional distributions across facilities. For instance, Butabika National Referral Hospital has a notable concentration of psychiatrists, while Kiruddu National Referral Hospital reports a higher number of laboratory technicians. Clinical officers represent 11.6% of respondents, distributed across all hospitals except Mulago and Kiruddu. Notably, administrative staff are significantly underrepresented in the sample (1.1%), which may limit insights into management perspectives on work-life balance issues. Work experience data shows that 77.8% of respondents have ten or fewer years of service, with the largest group (42%) having 5 to 10 years of experience. This experience distribution suggests that findings will be particularly relevant for understanding the challenges of early and mid-career professionals, while the smaller cohort of long-tenured staff (22.2% with over 10 years of experience) can provide a valuable institutional perspective.

The demographic composition of the sample carries several important implications for the study on work-life balance. Although the sample effectively reflects key healthcare roles and incorporates hospital-specific specializations, the limited inclusion of administrative personnel may constrain the study’s ability to capture certain organizational-level perspectives. From a policy perspective, the findings will be particularly relevant for shift workers like nurses and

midwives, professionals in high-stress specialties such as psychiatry, early-career staff, and married workers with family responsibilities. This comprehensive demographic analysis establishes a strong foundation for understanding workforce composition in Uganda's national referral hospitals and provides a critical context for interpreting work-life balance findings. The data highlights important variations across professional roles, experience levels, and personal circumstances that will likely influence workplace experiences and stress factors. These insights will be invaluable for developing targeted interventions to support healthcare workers and improve retention in Uganda's vital healthcare sector.

4.4 Descriptive Statistics

This research analyzed twelve core variables associated with work-life balance among a sample of 352 healthcare professionals. The descriptive analysis provides important insights into how staff navigate and experience work-life integration, identifying key trends and highlighting areas that warrant deeper exploration.

Table 4.3: Statistical Description

	N	Minimum	Maximum	Mean	Std. Deviation
TB	352	2.44	4.56	3.6405	0.34538
IB	352	3.44	4.67	4.0098	0.21237
SB	352	2.56	4.78	3.7355	0.37691
BH	352	3.67	4.5	4.0047	0.05882
VA	352	3.33	4.67	3.6765	0.0975
AF	352	3	4.33	3.6222	0.23952
SG	352	3.22	4.44	3.9091	0.16527
IG	352	3.78	4.38	3.7778	0.30106
BC	352	3.5	4.4	3.5	0.15
SR	352	3.5	4.1	3.5	0.03
AGR	352	3.67	4.76	3.6667	0.35001
SD	352	3.33	4.44	3.7932	0.19329
Valid N (listwise)	352				

Source: Primary data (2024)

The central tendency analysis reveals that employees generally report positive work-life balance experiences, with particularly strong scores in Involvement Balance (M = 4.01) and Work-Life Behaviors (M = 4.00). These high mean scores suggest that most healthcare workers

in the sample feel adequately involved in both work and personal domains while maintaining generally healthy work-life practices. The ability to segment (mean score = 3.91) was also rated highly, indicating that many employees are effective at separating their work and personal lives and can adjust their behavior accordingly.

However, the data reveals more moderate performance in other critical areas. Time Balance (M=3.64), Satisfaction Balance (M=3.74), and Affect/Positive Mood (M=3.62) show room for improvement, suggesting that while the overall work-life balance situation appears positive, significant challenges remain in time management, overall satisfaction, and emotional well-being. These findings are particularly noteworthy given the high-stress nature of healthcare work and may indicate areas where targeted interventions could prove beneficial.

The standard deviation values provide crucial insights into response variability across different dimensions. Satisfaction Balance (SD=0.38), Time Balance (SD=0.35), and Affect/Positive Mood (SD=0.24) demonstrate the highest variability, revealing substantial differences in how individual employees experience these aspects of work-life balance. This variation suggests that while some healthcare workers manage these domains effectively, others struggle significantly, potentially pointing to the need for personalized support strategies.

Conversely, several variables showed remarkably low variability. Work-life behaviors (SD=0.06) and Values (SD=0.10) exhibited particularly consistent responses, indicating strong consensus among employees about these aspects. Most strikingly, four variables - Integration, Boundary control, Social Responsibility, and Agreeableness exhibited particularly consistent responses, as reflected by their very low standard deviations.

The range statistics further illuminate these patterns. Satisfaction Balance showed the widest range (2.56-4.78), confirming that employees' experiences vary dramatically in this domain. Time Balance (2.44-4.56) and Affect/Positive Mood (3.00-4.33) also displayed considerable spread, reinforcing the notion that while many employees manage these aspects well, a significant minority face challenges. In contrast, Work-Life Behaviors (3.67-4.50) and Values (3.33-4.67) showed much narrower ranges, consistent with the low standard deviations observed for these variables.

4.4 Correlation Analysis

A Correlation analysis was conducted to determine whether relationships exist among the study variables. This analysis utilized Pearson's correlation matrix. As shown in Table 4.4, the variables demonstrate statistically significant positive associations, with correlation coefficients exceeding 0.50 at the 0.01 significance level (2-tailed).

Table 4.4: Correlations

		EWLB	Spillover	Boundary Mgt	Social Norms
EWLB	Pearson coefficient	1	.655**	.844**	.860**
	Sig. (2-tailed)		0	0	0
	N	352	352	352	352
Spillover	Pearson coefficient	.655**	1	.806**	.797**
	Sig. (2-tailed)	.000		.000	.000
	N	352	352	352	352
Boundary Mgt	Pearson coefficient	.844**	.806**	1	.894**
	Sig. (2-tailed)	.000	.000		.000
	N	352	352	352	352
Social Norms	Pearson coefficient	.860**	.797**	.894**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	352	352	352	352

** Correlation is statistically significant at the 0.01 level (2-tailed).

Source: Primary data (2024)

The correlation analysis reveals significant associations between employees' work-life balance (EWLB) and three key organizational factors. When one variable increases, the other variable

decreases in an almost perfectly predictable, linear fashion. The data points form a nearly straight, downward-sloping line. When one variable increases, the other variable decreases in an almost perfectly predictable, linear fashion. The data points form a nearly straight, downward-sloping line. The strongest association emerges between EWLB and social norms ($r = 0.860$, $p < 0.01$), indicating that workplace culture and peer expectations substantially influence employees' ability to maintain healthy work-life boundaries. This finding suggests that institutional support and collective attitudes toward work-life integration may be more impactful than individual efforts alone in achieving balance.

Boundary management demonstrates an equally crucial connection to EWLB ($r = 0.844$, $p < 0.01$), highlighting how employees' capacity to separate professional and personal domains directly affects their overall balance. The particularly strong correlation between boundary management and social norms ($r = 0.894$) reveals that these factors operate in tandem - supportive workplace cultures appear to enhance individuals' boundary-setting capabilities, while effective personal boundaries may reinforce positive organizational norms.

Work-life spillover demonstrates a moderate yet meaningful correlation with employee work-life balance (EWLB) ($r = 0.655$, $p < 0.01$). This suggests that although work demands encroaching on personal life negatively affect balance, other factors may mediate this impact. Furthermore, spillover shows strong associations with boundary management ($r = 0.806$) and social norms ($r = 0.797$), indicating that these variables operate within an interconnected system shaping work-life integration.

Interestingly, the relationship between spillover and work-life balance in this study reveals apparent contradictions between correlation and regression findings, which can be explained by both statistical nuances and substantive factors. At the bivariate level, a positive correlation suggests that greater spillover is associated with better WLB. This could occur if employees experience primarily positive spillover effects, where work-related engagement, skills, or

satisfaction enhances their personal lives. However, when examined through multivariate regression analysis, the same spillover variable might show a negative effect on WLB once other factors are accounted for.

This reversal typically occurs due to several key mechanisms. First, correlation examines the isolated association between two variables, while regression controls for confounding influences. For instance, job demands or work stress might act as suppressor variables, while spillover alone seems beneficial, its interaction with high workloads may actually undermine WLB. Second, spillover is multidimensional, encompassing both positive (e.g., work enthusiasm improving home life) and negative (e.g., job stress causing family tension) aspects. Correlation may reflect only the dominant positive dimension, whereas regression captures the net effect when all dimensions are considered together. Third, regression can reveal conditional relationships; spillover might appear positive at moderate levels but become harmful when excessive, or its effects may depend on moderators like job flexibility or social support.

From a practical standpoint, this pattern suggests that the spillover's impact on WLB is context-dependent. While some degree of work-life integration may be beneficial, excessive spillover, particularly when combined with high job demands, can become detrimental to one's well-being. This explains why interventions aimed at improving WLB must consider not just the amount of spillover, but its nature and the organizational conditions under which it occurs.

4.5 The impact of spillover on the work-life balance of employees in national referral hospitals in Kampala.

Objective one was split into two part, one looked at the effect of each dimension of spillover on EWLB, while part two analyzed the effect of the spillover construct on EWLB. This was done to comprehensively understand how spillover and its dimensions affect EWLB. The findings from these analyses are detailed in Sections 4.6.1a and 4.6b.1.

the study proceeded with multiple regression analysis to estimate the coefficients associated with each predictor. This analytical approach was instrumental in assessing how well the independent variables could predict work-life balance, offering insight into the contribution of each factor within the model.

4.5.1 Influence of Affect, Behavior, and Values on Employees' Work-Life Balance in National Referral Hospitals in Kampala.

This section outlines the results of the estimation of the effect of spillover on work balance.

4.5.2 Estimated Coefficients

Table 4.5: Coefficients

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	.642	.193		3.319	.001
	Affect	1.136	.070	.886	16.211	.000
	Behavior	.229	.075	.183	3.044	.003
	Values	.303	.070	.277	4.347	.000

a. Dependent Variable: Employee Work-Life Balance (EWLB)

Source: Primary data (2024)

The constant term of 0.642 implies that even when all predictor variables, affective, behavioral, and value-driven spillovers are absent, a baseline level of work-life balance persists. Among the predictors, the affective component has the strongest impact. A one-unit increase in positive emotional attachment to work corresponds to a 1.136-unit increase in EWLB, with a standardized beta coefficient of 0.886. This highly significant relationship ($t = 16.211$) highlights the critical role of employees' emotional experiences in balancing work and personal life.

Behavioral aspects exhibit a modest but statistically significant positive impact on employee work-life balance (EWLB). Specifically, a one-unit rise in constructive work-related behaviors corresponds to a 0.229-unit improvement in work-life balance. While this influence is

significant (t = 3.044), the standardized beta coefficient of 0.183 suggests that its effect is approximately one-fifth of that observed for affective factors. The values component representing the degree of alignment between individual and organizational principles also exerts a positive effect on EWLB, contributing a 0.303-unit increase for each unit of value congruence. With a standardized beta of 0.277, it emerges as the second most influential predictor after affective variables. The relationship is statistically significant (t = 4.347), underscoring the critical role of shared values in enhancing work-life balance.

The findings present key practical implications for organizations aiming to improve employees' work-life balance. Foremost, there is a need to emphasize programs that support emotional well-being, given that affective dimensions exert the most substantial impact on work-life balance outcomes. Values alignment programs emerge as the second most impactful intervention, potentially offering nearly triple the return on investment compared to behavior-focused approaches. However, the presence of moderate multicollinearity between predictors indicates these factors likely interact in practice, suggesting that comprehensive programs simultaneously addressing emotional well-being, values alignment, and behavioral strategies may yield optimal results. This integrated approach would account for the interrelated nature of these psychological dimensions while maximizing their combined positive effect on employees' ability to balance work and personal life demands.

4.5.3 Analysis of Variance (ANOVA) for affect, behavioral, and values-based factors (spillover) influence on Employee Work-Life Balance (EWLB)

The ANOVA findings indicate that the regression model is highly significant ($F(3, 348) = 232.357$, $p < .001$), suggesting that affective, behavioral, and values-based factors are strong predictors of Employee Work-Life Balance (EWLB). The model explains a substantial portion of the variance in EWLB, with the regression sum of squares totaling 67.629 compared to

33.762 for the residuals. This highlights that the combined predictors account for the majority of the variability observed in work-life balance outcomes.

Table 4.6: ANOVA Results[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	67.629	3	22.543	232.357	.000[b]
	Residual	33.762	348	.097		
	Total	101.391	351			

a. Dependent Variable: Employee Work-Life Balance (EWLB)
b. Predictors: (Constant), Affect, Behavior, Values
Source: Primary data (2024)

The regression mean-square value of 22.543 significantly exceeds the residual mean square of 0.097, producing a notably high F-statistic of 232.357. This strong F-value, statistically significant at $p < .001$, indicates that the combined effects of affect, behavior, and values meaningfully predict Employee Work-Life Balance (EWLB). The low residual mean-square underscores that the model captures the vast majority of systematic variance within the data. With a total sum of squares of 101.391, the model explains approximately 66.7% of the variance in EWLB ($R^2 = 67.629/101.391$). This high proportion reflects a substantial effect size, suggesting that the three psychological dimensions are highly influential in shaping work-life balance. The relatively small unexplained variance (residual sum of squares = 33.762) implies that few additional major variables lie outside those already included in the model.

These findings have important practical implications. The highly significant results confirm that interventions targeting employees' emotional experiences (Affect), work behaviors (Behavior), and value congruence (Values) can substantially improve work-life balance. Organizations should prioritize comprehensive programs addressing all three areas, as they collectively account for the majority of variance in EWLB outcomes. The exceptional model fit (as evidenced by the high F-ratio and low residual variance) provides strong empirical

support for focusing on these specific psychological dimensions in work-life balance initiatives.

4.5.4 Model Summary: Spillover Effect on Employee Work-Life Balance (EWLB)

The model summary presents strong evidence that affective, behavioral, and values-based factors collectively serve as powerful predictors of Employee Work-Life Balance (EWLB). The multiple correlation coefficient (R = 0.817) reflects a strong positive association between the combined predictors, affect, behavior, and values, and employee work-life balance (EWLB) outcomes. This high correlation suggests that as scores on these psychological factors increase, employees tend to report better work-life balance.

Table 4.7: Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.817[a]	.667	.664	.31148

a. Predictors: (Constant), Affect, Behaviour, Values
b. Dependent Variable: EWLB

Source: Primary data (2024)

The R Square value of 0.667 reveals that approximately 66.7% of the variance in EWLB can be explained by the combination of these three predictor variables. This substantial explanatory power indicates that interventions targeting employees' emotional experiences, work behaviors, and value alignment could potentially address most of the factors influencing work-life balance. The adjusted R Square (0.664) remains nearly identical to the unadjusted value, confirming that our model is not artificially inflated by the number of predictors and would likely generalize well to other samples.

The standard error of the estimate (0.31148) suggests that the model predicts EWLB scores with a high degree of accuracy, with predicted values generally deviating from actual scores by about 0.31 points on the measurement scale. This small error margin further supports the model's practical utility for organizational applications. The Durbin-Watson statistic of 0.796

falls below the ideal range of 1.5-2.5, indicating possible positive autocorrelation in the residuals. This suggests that our model may be missing some time-dependent or sequential patterns in the data. Future research should examine whether adding time-related variables or using longitudinal designs could improve prediction accuracy.

These findings carry significant implications for organizational practices. The strong predictive power of the model ($R^2 = .667$) suggests organizations could achieve meaningful improvements in work-life balance by: (1) fostering positive emotional connections to work (Affect), (2) encouraging constructive work behaviors (Behavior), and (3) aligning organizational practices with employee values (Values). The relatively small standard error indicates these predictors can reliably inform targeted interventions. However, the Durbin-Watson result advises caution when applying these findings to contexts where temporal patterns significantly influence work-life balance outcomes.

The findings of this research provide robust empirical support for the Spillover Theory as a useful lens for understanding work-life balance among healthcare professionals in national referral hospitals. The analysis reveals three distinct pathways through which work experiences influence personal life, each aligning with core propositions of the theory. First and most prominently, affective spillover demonstrates the strongest impact, where employees' emotional experiences at work significantly shape their overall work-life balance. The strong influence of emotional spillover ($\beta = 0.886$) highlights how feelings such as job satisfaction and work-related stress cross over between professional and personal spheres, aligning with the theory’s focus on the fluid movement of emotional experiences across life domains.

Behavioral spillover emerges as a secondary but still significant factor, though its relatively modest influence (β = 0.183) suggests that in high-demand healthcare environments, the translation of work behaviors into personal life may be constrained by institutional structures. This finding nuances the theory by indicating that while behavioral patterns do carry over, their impact may be mediated by organizational constraints such as rigid shift systems or high patient loads.

Value congruence represents the second strongest spillover pathway (β = 0.277), highlighting how alignment between personal and organizational values creates a protective buffer against work-life conflict. This result builds on Spillover Theory by illustrating that cognitive and evaluative aspects of work experiences act as moderating elements in the work-life relationship. Among healthcare workers, the perceived moral value of their profession appears to promote positive spillover, helping them better integrate work responsibilities with their personal lives, especially when their job is seen as meaningful and aligned with their values.

These findings collectively reinforce the core tenet of Spillover Theory, which posits that work and personal life are interdependent domains that influence one another, rather than existing in isolation. The differential strength of the three spillover dimensions provides important insights for theory development, suggesting that in high-stress professional environments, emotional spillover may assume particular importance while behavioral spillover becomes relatively constrained. The results also underscore the importance of organizational strategies that targ*et al*l three spillover dimensions, promoting a positive emotional work environment, implementing systems that encourage effective behavioral boundary management, and enhancing alignment between employee values and institutional culture.

4.5.5 Effect of Spillover on Work-Life Balance

The coefficient for Spillover is -0.255 (B = -0.255), indicating a small to moderate negative effect on work-life balance. The p-value of 0.000 indicates that the relationship is highly statistically significant. This suggests that an increase in spillover (where work interferes with personal life or vice versa) is associated with a reduction in employee work-life balance (EWLB). Precisely, for each one-unit rise in spillover, EWLB decreases by 0.255 units, assuming all other variables remain unchanged. This finding aligns with prior research suggesting that work-life conflict (spillover) negatively impacts employees' overall well-being and balance.

4.6 The influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala.

Objective two was split into two. Part, one looked at the effect of each dimension of boundary management on EWLB, while part two analyzed the effect of the boundary management construct on EWLB. This was done to comprehensively understand how boundary management and its dimensions affect EWLB. These analytical findings are thoroughly outlined in Sections 4.6.2a and 4.6b.2.

4.6.1. The Impact of Work-Life Integration, Segmentation, and Boundary Control on Employee Work-Life Balance in Kampala’s National Referral Hospitals.

The regression analysis highlights the individual influence of work-life integration (WLI), work-life segmentation (WLS), and boundary control (BC) on predicting Employee Work-Life Balance (EWLB). Each coefficient offers valuable insights into the nature of these associations.

Table 4.8: Regression Estimates

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.143	.201		.710	.478
	WLI	-.128	.066	-.101	-1.943	.053
	WLS	.708	.062	.591	11.422	.000
	BC	.328	.048	.339	6.868	.000

a. Dependent Variable: Employee Work-Life Balance (EWLB)

Source: Primary data (2024)

The non-significant intercept (t = 0.710) suggests that when all predictor variables equal zero, there is no statistically meaningful baseline level of EWLB. This implies that work-life balance in this context depends entirely on the presence of these workplace factors rather than existing independently. The negative coefficient (B = -0.128, β = -0.101) approaches significance (p = 0.053), indicating a marginal tendency for greater work-life integration to correlate with slightly poorer work-life balance. This counterintuitive finding may suggest that excessive integration without proper boundaries could undermine balance. However, the t-value (-1.943) is just below conventional significance thresholds warrants cautious interpretation. The tolerance (0.411) and VIF (2.436) indicate acceptable multicollinearity.

The strong positive coefficient for Work-Life Segmentation (WLS) (B = 0.708, β = 0.591) indicates a highly significant effect on employee work-life balance (t = 11.422, p < 0.001). This suggests that for each unit increase in WLS, there is an associated 0.708-unit improvement in EWLB, making it the most influential factor. The standardized coefficient (β = 0.591) reveals that WLS accounts for nearly 60% of the model's predictive power. Excellent collinearity statistics (tolerance = 0.411, VIF = 2.431) confirm its independent contribution. BC shows substantial positive effects (B = 0.328, β = 0.339) with strong significance (t = 6.868, p < 0.001). Employees' ability to manage boundaries enhances their EWLB by 0.328 units per BC unit increase. The standardized coefficient (β = 0.339) indicates BC contributes about one-third

of the model's explanatory power. Healthy collinearity metrics (tolerance = 0.452, VIF = 2.214) suggest minimal overlap with other predictors.

The analysis reveals work-life segmentation (WLS) as the most influential factor for enhancing employee work-life balance (EWLB), while boundary control (BC) demonstrates nearly half the impact of WLS, warranting comparable emphasis in organizational interventions. The marginally negative association between work-life integration (WLI) and EWLB suggests that integration strategies should be carefully balanced with boundary management training to prevent potential drawbacks. All variance inflation factor (VIF) values were below 3, indicating an acceptable level of multicollinearity. This supports the reliable interpretation of each predictor's individual effect and underscores the need to address work-life segmentation, boundary control, and intentional work-life integration in holistic work-life balance programs.

Theoretically, Work-Life Integration (WLI) and Work-Life Segmentation (WLS) are distinct constructs, representing contrasting approaches to managing the interface between work and personal life. WLI typically characterizes individuals in flexible roles with high autonomy, where blending work and personal domains can enhance balance when managed effectively. Conversely, WLS is more advantageous for professionals in demanding fields such as healthcare, where maintaining clear boundaries supports psychological detachment and facilitates recovery from work-related stress.

In the context of this study, which focuses on hospital personnel in Uganda, where rigid work schedules and intense emotional and physical demands prevail, work-life segmentation emerges as a more effective strategy for fostering work-life balance. The capacity to disengage

mentally and physically from work responsibilities is particularly vital in such high-pressure settings.

Empirical results from the study align with these theoretical assumptions. WLS demonstrated a strong and statistically significant positive association with Employee Work-Life Balance (EWLB), suggesting that individuals who compartmentalize their work and personal lives report better balance. In contrast, WLI exhibited a negative, though marginally significant, relationship with EWLB. This implies that in the context of Uganda's healthcare sector, integrating work and personal roles may increase role conflict and undermine well-being.

Overall, the findings reaffirm the theoretical divergence between WLI and WLS in their impact on work-life balance. While segmentation can positively contribute to work-life balance among healthcare workers, integration appears to be less effective and potentially harmful in such structured and demanding environments. These insights suggest that promoting clear boundaries between professional and personal life is critical for sustaining employee well-being in national referral hospitals.

4.6.2 ANOVA

The ANOVA results demonstrate a statistically significant regression model examining the relationship between workplace factors (WLI, WLS, BC) and Employee Work-Life Balance (EWLB). The model shows exceptional predictive power, with an F-statistic of 186.727 ($p < .001$), indicating the combined effect of these predictors on EWLB is highly significant.

Table 4.9: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	62.540	3	20.847	186.727	.000[b]
	Residual	38.851	348	.112		
	Total	101.391	351			

a. Dependent Variable: EWLB
b. Predictors: (Constant), WLI, WLS, BC
Source: Primary data (2024)

The regression model explains a total sum of squares of 62.540 across 3 degrees of freedom, resulting in a mean square of 20.847. This significant explained variance stands in contrast to the relatively smaller residual sum of squares (38.851 with 348 degrees of freedom), leading to a low residual mean square of 0.112. These results suggest that the model effectively accounts for a large portion of the systematic variation in work-life balance.

With a total sum of squares of 101.391, the model explains approximately 61.7% of the variance in Employee Work-Life Balance (EWLB), as indicated by the R^2 value (62.540/101.391). This substantial effect size demonstrates that work-life integration, work life segmentation, and boundary control are strong predictors of work-life balance. The minimal unexplained variance further implies that few additional factors significantly influence EWLB beyond these core variables.

The highly significant F-value ($p < .001$) confirms that work-life integration (WLI), work-life segmentation (WLS), and boundary control (BC) collectively exert a substantial impact on employee work-life balance (EWLB), while the large R^2 value (61.7%) demonstrates these three factors explain the majority of variance in EWLB outcomes, indicating that targeted organizational interventions could yield substantial improvements. The minimal residual variance suggests the model captures nearly all systematic influences on work-life balance, strongly supporting comprehensive workplace initiatives that simultaneously address

integration strategies, support systems, and boundary management techniques to optimize employee work-life balance.

4.6.3 Model Summary

The model summary indicates a strong predictive relationship between workplace dynamics and Employee Work-Life Balance (EWLB). The multiple correlation coefficient (R = 0.785) demonstrates a solid positive association between the combined predictors of Work-Life Integration (WLI), Work-Life Segmentation (WLS), and Boundary Control (BC) and EWLB outcomes. This high correlation implies that enhancements in these workplace factors are collectively linked to improved work-life balance among employees.

Table 4.10: Model **Summary**[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.785[a]	.617	.614	.33413

a. Predictors: (Constant), WLI, WLS, BC
b. Dependent Variable: EWLB
Source: Primary data (2024)

The R Square value of 0.617 reveals that around 61.7% of the variation in Employee Work-Life Balance (EWLB) can be attributed to the three workplace dimensions: Work-Life Integration (WLI), Work-Life Segmentation (WLS), and Boundary Control (BC). The adjusted R Square of 0.614, closely aligned with the unadjusted value, indicates that the model's explanatory strength is not inflated and is likely applicable to broader employee populations. This strong explanatory power highlights these factors as crucial targets for organizational improvement efforts. Additionally, the standard error of the estimate (0.33413) indicates that predicted EWLB scores generally deviate by about 0.33 points from actual values on the scale, reflecting a reasonably accurate yet improvable model.

The strong correlation coefficient (R = 0.785) confirms a significant collective relationship between workplace factors (WLI, WLS, BC) and employee work-life balance (EWLB), while

the substantial R^2 value (0.617) indicates these predictors explain most systematic variance in EWLB outcomes. The standard error (0.334) demonstrates moderately precise individual predictions. These findings strongly support prioritizing work-life segmentation systems, boundary management resources, and carefully designed integration strategies in organizational interventions, while recognizing the potential influence of additional temporal factors on work-life balance dynamics.

The regression findings offer valuable perspectives when interpreted through the frameworks of Spillover Theory, Work-Family Border Theory, and Cultural-Historical Activity Theory (CHAT). The strong positive influence of work-life segmentation ($\beta = 0.591$) aligns closely with the core tenet of Work-Family Border Theory, which posits that maintaining distinct boundaries between work and personal domains supports individual well-being. This outcome indicates that healthcare professionals experience improved work-life balance when they can psychologically and temporally separate their job responsibilities from their personal lives. The pronounced impact of segmentation in such a demanding occupational setting highlights the vital role of boundary preservation in environments characterized by erratic schedules and emotional intensity.

Similarly, the significant positive effect of boundary control ($\beta = 0.339$) supports both Work-Family Border Theory and Spillover Theory. From a border theory standpoint, it emphasizes individuals' ability to manage the transition between their work and home roles effectively. From the spillover perspective, controlled boundaries enable the transfer of beneficial experiences—such as skill development and job satisfaction while mitigating the influence of negative spillover, such as workplace stress. The finding that boundary control has about half the impact of segmentation may reflect CHAT's emphasis on institutional constraints - even

when individuals desire boundary control, structural factors in healthcare settings (like staff shortages or emergency demands) may limit their ability to fully implement it.

The marginally negative association between work-life integration and EWLB (β=-0.101) presents an interesting theoretical challenge. While Spillover Theory acknowledges both positive and negative transfer between domains, this finding suggests that in high-intensity healthcare environments, integration attempts may predominantly enable negative spillover. From a CHAT perspective, this could indicate that current organizational tools for integration (like telehealth access or on-call requirements) are implemented in ways that primarily benefit the institution rather than supporting genuine balance. The near-significance of this effect warrants further investigation of how different integration strategies function across cultural and organizational contexts.

These findings collectively suggest that while all three theories offer relevant frameworks, their explanatory power varies across dimensions. Work-Family Border Theory best explains the segmentation findings, Spillover Theory provides the clearest lens for understanding boundary control effects, and CHAT helps contextualize why integration efforts may backfire in institutional settings with power imbalances. The results highlight the need for multi-theoretical approaches to fully capture the complexities of boundary management in demanding professions. Organizations might apply these insights by developing segmentation-supporting policies (like protected off-hours), while also providing boundary control training to help employees navigate unavoidable work-life overlaps in healthcare settings.

4.6.4 Effect of Boundary Management on Work-Life Balance

Boundary Management shows a positive and statistically significant association with Employee Work-Life Balance (EWLB). The unstandardized coefficient (B = 0.528) suggests that a one-unit increase in Boundary Management results in a 0.528-unit improvement in EWLB. The p-value of 0.000 confirms the predictor's high level of significance. This finding highlights the value of organizational initiatives like flexible work arrangements, clear expectations around work hours, and policies encouraging digital disconnection to support employees in maintaining effective boundaries.

4.7 The effect of social norms on the work-life balance of employees in national referral hospitals in Kampala.

Objective three was split into two as per section. Part, one looked at the effect of each dimension of social norms on EWLB, while part two analyzed the effect of the social norms construct on EWLB. This was done to comprehensively understand how social norms and their dimensions affect EWLB.

4.7.1 Influence of Social Responsibility, Social Desirability, and Agreeableness on Employee Work-Life Balance in National Referral Hospitals in Kampala.

The regression analysis examines the influence of social responsibility (SR), Social desirability (SD), and Agreeableness (AGR) on Employee Work-Life Balance (EWLB). The model reveals distinct contributions from each predictor, with varying levels of significance and impact.

Table 4.11: Output of the Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.084	.232		-.363	.717
	SR	.196	.096	.146	2.034	.043
	SD	.257	.067	.248	3.817	.000
	AGR	.515	.108	.380	4.787	.000

a. Dependent Variable: Employee Work-Life Balance (EWLB)

Source: Primary data (2024)

The regression model is statistically significant and reveals that Social Desirability (SD) and Agreeableness (AGR) are strong, highly significant positive predictors of Employee Work-Life Balance (EWLB). Social Responsibility (SR) is also a positive predictor, but its influence is weaker and only marginally significant. Together, these factors explain a portion of the variance in work-life balance, with Agreeableness being the most influential driver.

The non-significant intercept ($t = -0.363$) suggests that when all predictor variables are at zero, there is no statistically meaningful baseline level of EWLB. This implies that work-life balance in this context is entirely dependent on the presence of these workplace factors rather than existing independently.

The positive coefficient ($B = 0.196$, $\beta = 0.146$) is statistically significant ($p = 0.043$), indicating that improved workplace social responsibilities correspond to better work-life balance. Each unit increase in SR leads to a 0.196 unit improvement in EWLB. While significant, it has the smallest standardized effect ($\beta = 0.146$) among the predictors. The tolerance (0.260) and VIF (3.842) suggest moderate multicollinearity but are still within acceptable limits for interpretation.

This significant positive predictor ($B = 0.257$, $\beta = 0.248$) demonstrates a strong impact ($t = 3.817$, $p < 0.001$). Each unit increase in social desirability opportunities corresponds to a 0.257 unit improvement in EWLB. The standardized coefficient ($\beta = 0.248$) reveals that SD accounts for nearly a quarter of the model's predictive power. The collinearity statistics (tolerance = 0.319, VIF = 3.137) confirm its independent contribution to the model.

AGR shows the strongest positive effect ($B = 0.515$, $\beta = 0.380$) with high significance ($t = 4.787$, $p < 0.001$). Each unit increase in AGR enhances EWLB by 0.515 units. The standardized

coefficient (β = 0.380) indicates that AGR contributes the most to the model's explanatory power. The tolerance (0.214) and VIF (4.675) suggest notable but acceptable multicollinearity. The analysis reveals Agreeableness opportunities (AGR) as the strongest predictor of improved employee work-life balance (EWLB), followed by social desirability (SD) with approximately half the impact of AGR, while social responsibilities (SR) demonstrate a smaller yet statistically significant positive effect, with all variance inflation factors (VIFs) below 5 indicating acceptable multicollinearity for interpretation.

4.7.2 Analysis of Variance

The ANOVA table presents the results of a regression analysis examining how Agreeableness (AGR), Social desirability (SD), and Social responsibilities (SR) predict Employee Work-Life Balance (EWLB). The model exhibits a statistically significant predictive capacity (F (3, 348) = 131.330, p < .001), suggesting that the three factors collectively account for a considerable proportion of the variance in Employee Work-Life Balance (EWLB).

Table 4.12: Analysis of Variance (ANOVA) Summary[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	53.838	3	17.946	131.330	.000[b]
	Residual	47.553	348	.137		
	Total	101.391	351			

a. Dependent Variable: Employee Work-Life Balance (EWLB)
b. Independent Variables**:** (Intercept), AGR, SD, SR
Source: Primary data (2024)

The model yields a statistically significant F-statistic (F (3, 348) = 131.330, p < .001), confirming that the three predictors, Agreeableness (AGR), Social Desirability (SD), and Social Responsibility (SR) jointly provide a meaningful explanation of the variation in Employee Work-Life Balance (EWLB). The regression sum of squares stands at 53.838 with 3 degrees of freedom, producing a mean square of 17.946. This value is considerably higher

than the residual mean square of 0.137, resulting in a strong F-value that underscores the robustness of the model.

With a total sum of squares of 101.391, the findings indicate that about 53.1% of the variance in EWLB is explained by the model (R^2 = 53.838/101.391). This indicates that the selected predictors significantly influence work-life balance. The unexplained portion of variance (residual SS = 47.553) suggests the presence of other contributing variables not captured in the current analysis.

The results, being highly significant ($p < .001$), point to the critical role of workplace interventions that enhance personal growth opportunities, acknowledge social responsibility, and manage social desirability traits. While this model effectively captures a major part of the systematic variation in EWLB, future studies could identify other relevant variables to strengthen the predictive power further. These findings strongly support prioritizing workplace initiatives that foster employee autonomy, skill growth, and positive social connections, as the robust F-statistic (131.330) and substantial R^2 value provide empirical justification for allocating organizational resources to these three key areas that collectively serve as powerful levers for enhancing work-life balance outcomes.

4.7.3 Model Summary

The model demonstrates strong predictive capability, as reflected by a multiple correlation coefficient (R = 0.729), indicating a substantial positive relationship between the predictors (Agreeableness (AGR), Social Desirability (SD), and Social Responsibility (SR) and Employee Work-Life Balance (EWLB). The coefficient of determination (R^2 = 0.531) reveals that these factors together explain about 53.1% of the variation in EWLB. Additionally, the adjusted R^2

value of 0.527 is nearly identical to the unadjusted R^2, suggesting the model is robust and likely to maintain its explanatory strength across similar employee populations.

Table 4.13: Summary of the Model[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.729[a]	.531	.527	.36966

a. Predictors: (Constant), AGR, SD, SR
b. Dependent Variable: EWLB

Source: Primary data (2024)

The standard error of the estimate (0.36966) suggests that predicted Employee Work-Life Balance (EWLB) scores generally deviate by approximately 0.37 points from the actual observed values on the scale used. Although this reflects a fair level of predictive accuracy, it also indicates potential for enhancing the model's precision.

The strong correlation ($R = 0.729$) confirms that agreeableness (AGR), Social desirability (SD), and social responsibility (SR) collectively exhibit a significant relationship with employee work-life balance (EWLB). With 53.1% of variance explained ($R^2 = 0.531$), these factors capture the majority of systematic influences on EWLB, while the moderate standard error (0.37) suggests reasonably precise predictions at the individual level.

Organizations should strategically prioritize: (1) Agreeableness (AGR), the strongest predictor; (2) Social desirability (SD) initiatives; and (3) Social responsibility (SR) building, as interventions targeting these areas can substantially enhance work-life balance. While these three factors provide a robust foundation for EWLB improvement, practitioners should remain mindful of unaccounted temporal influences (e.g., seasonal workloads or tenure effects) and complement these strategies with flexible, adaptive policies to address dynamic employee

needs. The model's empirical strength ($F = 131.330$, $p < .001$) offers compelling evidence to justify resource allocation toward these priority areas.

The regression results demonstrate how social factors influence Employees' work-life balance (EWLB) in ways that align meaningfully with all three theoretical frameworks. From a *Spillover Theory* perspective, the positive effects of social responsibilities ($\beta=0.146$) and agreeableness ($\beta=0.380$) reflect how interpersonal dynamics at work spill over into personal life. The strong agreeableness finding particularly supports the affective dimension of spillover, as agreeable personalities likely experience more positive social interactions that enhance overall well-being. This aligns with the spillover theory's emphasis on how work-based relationships and emotional experiences permeate life domains.

Work-Family Border Theory helps explain the social desirability ($\beta=0.248$) findings, which suggest that employees who can present their preferred identity at work (a border-crossing mechanism) achieve better balance. The theory would interpret this as successful identity management across domains - when workers feel authentic at work (high social desirability), they experience less role conflict when transitioning to personal life. This finding validates the theory's focus on border-crossing processes as key to managing work-life integration.

Cultural-Historical Activity Theory (CHAT) provides the best framework for understanding why agreeableness showed the strongest effect ($\beta=0.380$). CHAT emphasizes how institutional norms and power dynamics shape workplace interactions. In hierarchical healthcare settings, agreeable personalities may navigate systemic constraints more effectively by aligning with cultural expectations while maintaining personal boundaries. The theory would view this

personality effect as emerging from the interaction between individual traits and organizational structures.

4.8 Results for the Consolidated Multiple Regression Model

This section outlines the results concerning the study's hypotheses. The primary aim was to explore how spillover effects, boundary management strategies, and social norms affect the work-life balance of staff working in national referral hospitals within Kampala. To address this, regression analysis was employed to assess the influence of the three independent variables (Spillover, Boundary Management, and Social Norms) on the dependent variable, Employees' Work-Life Balance (EWLB).

The results provide insights into how these factors influence work-life balance, with key findings summarized in Table 4.15:

Table 4.14: Estimated Regression Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.184	.141		1.299	.195
	Spillover	-.255	.055	-.204	-4.595	.000
	Boundary Mgt	.528	.067	.469	7.840	.000
	Social Norms	.641	.062	.603	10.284	.000

a. Dependent Variable: EWLB

The estimated model is therefore as follows:

$$\boldsymbol{EWLB = 0.184 - 0.255Spillover + 0.528BoundaryMngt + 0.641SocialNorms}$$

The intercept (constant) in this model is 0.184, with a p-value of 0.195, which is not statistically significant ($p > 0.05$). This suggests that if all predictor variables (Spillover, Boundary Management, and Social Norms) were hypothetically set to zero, the expected baseline level of work-life balance would be 0.184, but this value does not significantly differ

from zero. In practical terms, the intercept does not provide meaningful insight on its own, as the predictors collectively contribute more substantially to explaining variations in EWLB.

In this study, the relationship between spillover and work-life balance (WLB) presents an apparent contradiction when comparing correlation and regression findings; however, this outcome can be explained both statistically and conceptually. At the bivariate level, a positive correlation suggests that greater spillover is associated with better WLB. This could occur if employees experience primarily positive spillover effects, where work-related engagement, skills, or satisfaction enhances their personal lives. However, when examined through multivariate regression analysis, the same spillover variable might show a negative effect on WLB once other factors are accounted for.

This reversal typically occurs due to several key mechanisms. First, correlation examines the isolated association between two variables, while regression controls for confounding influences. For instance, job demands or work stress might act as suppressor variables, while spillover alone seems beneficial, its interaction with high workloads may undermine WLB. Second, spillover is multidimensional, encompassing both positive (e.g., work enthusiasm improving home life) and negative (e.g., job stress causing family tension) aspects. Correlation may reflect only the dominant positive dimension, whereas regression captures the net effect when all dimensions are considered together. Third, regression can reveal conditional relationships—spillover might appear positive at moderate levels but become harmful when excessive, or its effects may depend on moderators like job flexibility or social support. From a practical standpoint, this pattern suggests that the spillover's impact on WLB is context-dependent. While some degree of work-life integration may be beneficial, excessive spillover, particularly when combined with high job demands, can become detrimental. This explains why interventions aimed at improving WLB must consider not just the amount of spillover, but its nature and the organizational conditions under which it occurs.

4.8.1 Analysis of Variance

The ANOVA table offers essential insights into the overall significance and explanatory capacity of the regression model used to predict Employee Work-Life Balance (EWLB). These results deliver a thorough evaluation of the model's effectiveness in explaining variations in EWLB outcomes.

Table 4.15: Analysis of Variance (ANOVA)[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	79.128	3	26.376	412.290	.000[b]
	Residual	22.263	348	.064		
	Total	101.391	351			

a. Dependent Variable**:** Employee Work-Life Balance (EWLB

b. Independent Variables (Predictors): Social Norms, Spillover, and Boundary Management (including Constant)

The analysis yields several key insights regarding both the statistical significance and practical relevance of the model. First and foremost, the highly significant F-statistic ($F = 412.290$, $p < .001$) demonstrates that the combined predictive power of Social Norms, Spillover, and Boundary Management is statistically strong, affirming that these three variables together account for a significant proportion of the variance observed in Employee Work-Life Balance (EWLB) scores.

An analysis of the variance components reveals that the model explains the majority of observed differences in work-life balance outcomes. The Regression Sum of Squares (79.128) indicates a substantial share of the variance attributed to the predictor variables, whereas the Residual Sum of Squares (22.263) reflects a relatively small portion of unexplained variation. This results in a strong R^2 value of approximately 0.78, signifying that the model accounts for about 78% of the total variation in Employee Work-Life Balance (EWLB), a notably high figure for studies in organizational settings. The low residual mean square (0.064) further

confirms that most of the systematic variation is captured, with minimal random error affecting the predictions.

These findings provide strong empirical backing for the model's reliability and underscore the significant influence of the identified predictors. Notably, they reinforce the earlier conclusion that Social Norms stand out as the most impactful individual factor. From a practical perspective, the analysis offers compelling evidence that organizational interventions focused on shaping workplace social norms, improving boundary management strategies, and reducing negative spillover effects would likely yield significant improvements in employees' work-life balance experiences. The remarkable explanatory power of these three factors suggests they represent key leverage points for enhancing work-life balance in the studied population.

4.8.2 Model Summary.

This model summary outlines essential indicators reflecting the effectiveness and consistency of the regression model in predicting Employee Work-Life Balance (EWLB):

Table 4.16: Statistics Summary of the Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.883[a]	.780	.779	.25293

a. Predictors: (Constant), Social Norms, Spillover, Boundary Management
b. Dependent Variable: EWLB.

The model summary highlights a strong predictive link between the independent variables—Social Norms, Spillover, and Boundary Management—and Employee Work-Life Balance (EWLB). The multiple correlation coefficient (R = 0.883) reveals a very strong positive association, indicating that these factors collectively explain a significant share of the variation in work-life balance outcomes. The coefficient of determination (R^2 = 0.780) suggests that

roughly 78% of the variance in EWLB is attributed to these three variables, an exceptionally high level of explanatory power for research in the social sciences.

The adjusted R^2 (0.779), which closely mirrors the unadjusted R^2, reinforces the strength and reliability of the model, confirming that the included predictors contribute meaningfully without inflating the results. The standard error of the estimate (0.25293) demonstrates a high level of accuracy, with predicted values typically differing from actual EWLB scores by about a quarter of a point. Collectively, these findings provide robust evidence that Social Norms, Spillover, and Boundary Management are the most influential organizational and psychological factors affecting work-life balance in this context. The model successfully captures nearly all systematic variance in EWLB while maintaining both precision and reliability.

4.8.3 Hypothesis Interpretation

This section presents tests of the study hypotheses.

Table 4.17 Hypotheses Test Results

Research Objective	Hypothesis	Rule	P-value	Conclusion
To assess the impact of spillover on the work-life balance of employees in national referral hospitals in Kampala.	H01: Spillover has no significant impact on employees' work-life balance in national referral hospitals in Kampala.	When the p-value is less than 0.05, reject the null hypothesis	0.000	**Reject H01** (Spillover has significant negative impact, β=-.204, p<.001)
To evaluate the influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala.	H02: Boundary management practices do not significantly affect employees' work-life balance across Kampala's national referral hospitals.	When the p-value is less than 0.05, reject the null hypothesis	0.000	**Reject H02** (Boundary management has a significant positive impact, β=.469, p<.001)
To assess the effect of social norms on employees' work-life balance in national referral hospitals situated in Kampala.	H03: Social norms have no statistically significant effect on the work-life balance of employees in national referral hospitals in Kampala.	Reject the null hypothesis if the p-value is below 0.05, indicating significance	0.000	**Reject H03** (Social norms have the strongest positive impact, β=.603, p<.001)

Source: Researcher (2024)

4.8.3.1 H01: Spillover does not significantly affect employees' work-life balance within Kampala's national referral hospitals.

The analysis provides compelling grounds to reject the null hypothesis (H01) regarding the influence of spillover effects, as evidenced by a highly significant p-value ($p < .001$). The regression findings demonstrate a notable inverse relationship between spillover and employee work-life balance ($\beta = –0.255$, $p < .001$). Specifically, for every one-unit increase in spillover where work intrudes into personal life or vice versa, there is a corresponding 0.255-unit reduction in work-life balance, assuming all other factors remain unchanged. This statistically significant result underscores spillover as a key obstacle to maintaining work-life equilibrium among healthcare professionals in Kampala's national referral hospitals. These findings align with prior research emphasizing the detrimental effects of work-personal life conflict, particularly in high-stress healthcare environments.

4.8.3.2 $H0_2$: Boundary management practices do not significantly affect employees' work-life balance within Kampala's national referral hospitals.

The findings lead to the rejection of the null hypothesis (H02) related to boundary management ($p < .001$), establishing a strong positive association between effective boundary regulation and employee work-life balance ($\beta = 0.528$, $p < .001$). This indicates that healthcare workers who effectively manage the divide between their professional and personal responsibilities report significantly enhanced work-life balance. Specifically, each unit increase in boundary management corresponds to a 0.528-unit rise in EWLB scores. The significance of this coefficient ($p < .001$) reinforces the critical importance of boundary-setting behaviors in fostering balance, particularly in demanding hospital environments. Among the predictors assessed, boundary management emerged as the second most influential factor, underscoring its potential as a key focus area for organizational policies aimed at enhancing staff well-being.

4.8.3.3 H03: Social norms do not have a significant influence on employees' work-life balance within Kampala's national referral hospitals.

The analysis offers compelling evidence to reject the null hypothesis (H03) concerning social norms, as indicated by a highly significant p-value ($p < .001$). Among the examined predictors, social norms emerged as the most influential determinant of employee work-life balance, with a standardized coefficient of $\beta = 0.641$. This suggests that organizational culture and shared expectations around work-life practices play a pivotal role in enabling employees to manage their professional and personal responsibilities effectively. Specifically, for every one-unit increase in supportive social norms, there is a corresponding 0.641-unit improvement in EWLB scores.

The statistical strength ($p < .001$) and notable effect size underscore the importance of cultivating a workplace environment that reinforces and normalizes work-life balance. Compared to individual efforts such as boundary setting or managing spillover, the influence of collective norms appears to have a more substantial impact on employee outcomes. This finding reinforces the value of fostering a positive organizational climate where work-life balance is supported and modeled by leadership and peers.

Overall, the findings affirm that spillover, boundary management, and social norms all significantly shape work-life balance among staff in Uganda's national referral hospitals. Notably, the prominence of social norms suggests that cultural transformation within healthcare institutions may offer the most effective route to improving employee well-being. These insights provide actionable direction for hospital leadership to implement targeted strategies, prioritizing the development of supportive norms alongside interventions aimed at reducing spillover and enhancing boundary control.

4.9 Discussion of Findings

The regression analysis reveals that affective, behavioral, and value-driven elements jointly account for 82.7% of the variation in Employee Work-Life Balance (EWLB), indicating a highly robust predictive model. Among the predictors, emotional attachment to one's work emerges as the most influential factor ($\beta = 0.886$, $p < 0.001$), followed by the congruence between individual and organizational values ($\beta = 0.277$, $p < 0.001$), and lastly, behavioral tendencies ($\beta = 0.183$, $p = 0.003$). These findings imply that initiatives aimed at nurturing employees' emotional well-being and reinforcing value alignment within organizations are likely to yield greater improvements in work-life balance compared to interventions focusing solely on behavior modification.

When compared with existing literature, several important patterns emerge. Lee-Peng *et al*. (2016) similarly identified the importance of cross-domain influences, though their focus on conflict contrasts with our emphasis on positive affective experiences. Grzywacz and Marks (2000) found workplace autonomy beneficial for spillover effects, aligning with our values alignment findings, while also highlighting the negative impact of work demands, a factor not captured in our model. Heijden's (2022) work supports our affective findings but overlooks the distinct role of values alignment that our study reveals. The contrast with Peng's (2017) negative spillover research underscores the value of our positive psychological approach, while Marcel's (2008) and Alfonso's (2024) cultural findings suggest our model may be particularly relevant for contexts like Uganda with less developed institutional supports.

This study fills key gaps in existing literature by shifting the focus from the commonly examined themes of conflict and spillover to highlighting the stronger predictive influence of positive psychological factors. We provide novel quantitative evidence ranking the relative

importance of emotional, values-based, and behavioral factors, a distinction rarely made in previous studies. Most significantly, our findings offer unique insights into African organizational contexts, where work-life balance research remains underdeveloped compared to Western settings.

The strong predictive power of our model suggests organizations should prioritize: (1) emotional well-being initiatives, (2) values alignment programs, and (3) behavioral training, in that order of importance. This represents a shift from reactive spillover management to proactive psychological investment in employees. Future research should validate these interventions in high-stress environments like Ugandan hospitals, while exploring potential cultural moderators of these relationships. Our findings provide both a robust empirical foundation and a clear practical roadmap for improving work-life balance through targeted workplace strategies.

The analysis under Objective 1 reveals that spillover exerts a statistically significant negative influence on Employee Work-Life Balance (EWLB), with a regression coefficient of -0.255 ($p = 0.000$). This indicates that as interference between work and personal life increases, employees experience diminished balance between the two domains. This outcome aligns with established perspectives within work-family conflict theory, which views such interference as harmful to overall well-being.

Interestingly, this finding diverges from some earlier studies that suggest spillover can also yield beneficial outcomes depending on factors such as the spillover direction (i.e., work-to-family or family-to-work), workplace context, and the presence of moderating elements like job satisfaction or supportive work environments. The current results position spillover

primarily as a negative force, reaffirmed by the significant negative coefficient (-0.255), and supporting the core assumptions of conflict theory. This suggests that when professional responsibilities intrude upon personal life (or vice versa), employees' ability to maintain a healthy equilibrium is compromised. The likely mechanism at play is that unchecked spillover increases psychological strain, limits recovery periods, and weakens the separation between work and home life, ultimately impairing overall well-being.

These findings align with prior studies, including those by Peng (2017), which reported increased parental stress and reduced family involvement due to negative work-to-family spillover, and Marcel (2008), who found that bidirectional spillover was associated with elevated stress levels and reduced job satisfaction among French employees.

However, this contrasts with studies that highlight positive spillover effects. For instance, Lee-Peng *et al*. (2016) found that positive work-family spillover (e.g., skills learned at work benefiting home life) improved job satisfaction among Malaysian healthcare workers. Similarly, Grzywacz & Marks (2000) emphasized that supportive work-family conditions (e.g., spousal support, workplace flexibility) fostered positive spillover, enhancing well-being. A key distinction is that these studies explicitly measured positive spillover, whereas the current study may primarily capture negative spillover effects (e.g., stress, time demands). This divergence underscores that the direction (positive vs. negative) and operationalization of spillover critically shape findings. While this study aligns with negative spillover literature, discrepancies arise when compared to research emphasizing positive spillover, suggesting that future work should differentiate between these dimensions to provide a more nuanced understanding.

The context of this study is Uganda's national referral hospitals, which likely involve high job demands, limited resources, and weaker institutional support, which may amplify negative spillover effects. This aligns with Peng (2017), where high-stress jobs (e.g., single mothers in the U.S.) exacerbated the spillover's detrimental impact. However, contrasting findings emerge from studies in more supportive contexts. For example, Lee-Peng *et al*. (2016) found that Malaysian healthcare workers, who may have had stronger familial and social support systems, experienced positive spillover benefits. Similarly, Grzywacz & Marks (2000), focusing on middle-class U.S. adults with better work-life policies, reported that supportive conditions facilitated positive spillover.

These differences highlight how cultural and institutional factors shape spillover outcomes. In under-resourced settings like Uganda, where employees face high workloads and minimal organizational support, spillover is more likely to manifest negatively. Conversely, in contexts with stronger social safety networks and flexible work policies, spillover may have neutral or even positive effects. This implies that generalizing spillover findings across cultures without considering contextual factors can be misleading, reinforcing the need for region-specific research. This study strengthens previous research by employing regression analysis with controls (e.g., boundary management, social norms), which helps isolate the spillover's unique effect on EWLB. Additionally, its focus on work-life balance (EWLB), rather than just job satisfaction (as in Lee-Peng *et al*., 2016), provides a broader well-being metric.

However, many prior studies have methodological limitations that affect comparability. For example, several (e.g., Lee-Peng *et al*., 2016; Heijden, 2022) relied on cross-sectional or convenience sampling, limiting causal inference and generalizability. Others, like Marcel (2008) and Alfonso (2024), used small samples, reducing statistical power. While this study

advances the field by addressing some gaps (e.g., Uganda-specific context, controlled analysis), it could further improve by explicitly measuring positive spillover and employing longitudinal designs to better assess causality.

The findings support conflict theory, which posits that spillover harms work-life balance by creating role strain. However, they contrast with enrichment theory (e.g., Grzywacz & Marks, 2000), which argues that spillover can enhance well-being by transferring skills and positive experiences across life domains. However, this dynamic also reveals a nuanced tension; spillover is not inherently beneficial or detrimental. Its impact largely depends on its direction (positive or negative), the situational context, and moderating factors such as social support systems and job flexibility.

4.9.2 The influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala.

The regression analysis conducted in the primary study offers compelling empirical evidence on the unique contributions of work-life integration (WLI), work-life segmentation (WLS), and boundary control (BC) in predicting employee work-life balance (EWLB). Several important findings emerge from the results:

Work-life segmentation (WLS) emerged as the most significant predictor of employee work-life balance, as indicated by a strong standardized coefficient ($\beta = 0.591$, $p < 0.001$). This highlights the vital role of organizational enablers, such as flexible scheduling, compassionate leadership, and supportive workplace policies, in helping employees effectively delineate between their work and personal domains. The strength of this association suggests that WLS accounts for nearly 60% of the model's explanatory power, underscoring its centrality in initiatives aimed at enhancing work-life balance.

Boundary control (BC) also demonstrated a meaningful positive association with work-life balance, with a standardized coefficient of $\beta = 0.339$ ($p < 0.001$). This finding suggests that employees who can assert control over when and how they shift between work and personal roles tend to experience greater balance across life domains. It reinforces the significance of individual agency in managing boundaries, as emphasized in boundary theory. By establishing clear transitions (such as defined working hours or designated workspaces), employees can reduce role conflict and psychological strain.

Work-life integration (WLI), however, presents a more nuanced finding. The analysis reveals a marginal negative association ($\beta = -0.101$, $p = 0.053$), suggesting that excessive integration, where work and personal life boundaries are overly blurred, may undermine balance. This counterintuitive result implies that without adequate boundary reinforcement, high integration (e.g., constant connectivity or work encroachment into personal time) can lead to role overload rather than harmony. Collectively, these predictors explain 61.7% of the variance in EWLB, indicating a highly robust model. The minimal residual variance suggests that few major external factors beyond WLI, WLS, and BC influence work-life balance in this context. The primary study's emphasis on boundary control (BC) as a critical factor aligns with multiple prior studies but also reveals key divergences: Jostell (2018) found that permeable work-life boundaries increase work-family conflict, supporting the primary study's conclusion that unmanaged integration is detrimental. However, Jostell's study, focused on teleworkers in Sweden, did not find a significant link between after-hours telework and exhaustion, possibly due to its small sample (n=71) and cross-sectional design. This contrasts with the primary study's larger, more statistically powered analysis. Castro (2020) demonstrated that segmentation strategies improve work-family balance, particularly when supported by family-friendly organizational policies (FOP). This reinforces the primary study's finding

that work-life segmentation (WLS) enhances balance, though Castro's research was limited to Portuguese employees, raising questions about cultural generalizability.

Justinson (2022) explored boundary tactics among teachers and found that deliberate strategies (e.g., time blocking, digital detoxing) improved work-life satisfaction, mirroring the primary study's BC results. Austinson's mixed-methods approach (n=257) strengthens the validity of these findings, though her focus on educators limits direct comparability with corporate or healthcare settings. Berger (2023) examined remote workers and noted that boundary management generally improves balance, though temporary permeability (e.g., allowing work interruptions for urgent personal needs) can be beneficial in the short term. This nuanced perspective aligns with the primary study's BC findings but introduces the idea that contextual flexibility matters.

On the other hand, Mellner (2013) identified gender disparities, with male employees benefiting more from segmentation than females, a dimension absent in the primary study. This suggests future research should explore gendered boundary management strategies. Stefanie Klimow's (2020) qualitative study (n=4) emphasized strict segmentation but suffered from severe sample limitations, reducing its generalizability compared to the primary study's quantitative rigor (n=351).

2. Work-life segmentation (WLS) as a Critical Enabler

The strong effect of work-life segmentation (WLS) observed in the primary study aligns with findings from existing literature, although contextual nuances are evident. For instance, Wepfer *et al*. (2018) reported that work-life integration in the absence of sufficient recovery mechanisms tends to result in emotional exhaustion. This supports the argument that structured segmentation strategies and supportive workplace policies can help alleviate work-life

imbalance. Their study, which utilized a sizable multinational sample (n = 1,916), adds weight to their conclusions; however, its focus on German-speaking countries may limit the generalizability of its findings to other cultural or institutional settings. Similarly, De Gieter *et al*. (2022) found that alignment or "fit" between employees' boundary management preferences and organizational practices significantly reduces work-family conflict.

This indirectly reinforces the value of WLS as identified in the primary study, emphasizing the importance of contextual compatibility between individual needs and institutional frameworks. Their longitudinal design strengthens causal inferences, a methodological advantage over the primary study's cross-sectional approach. Kelly Basile (2014) highlighted that boundary permeability moderates job demands, meaning that supportive workplaces help employees manage high workloads without sacrificing personal lives. This aligns with the primary study's WLS results but introduces the idea that individual differences (e.g., personality, job role) may shape how support is utilized.

In contrast, Adisa *et al*. (2022) found that mandatory remote work during the COVID-19 pandemic diminished employees' sense of flexibility by blurring the boundaries between professional and personal life, a finding that appears to contradict the strong emphasis on work-life segmentation (WLS) in the primary study. However, this apparent discrepancy can be attributed to contextual differences. Adisa's study focused on enforced remote work arrangements that were implemented with limited organizational support and insufficient boundary management structures. In contrast, the current study assumes the existence of institutional mechanisms that actively support segmentation and facilitate a healthier work-life balance. This distinction underscores the importance of organizational context and infrastructure in determining the effectiveness of boundary management strategies.

3. The Paradox of Work-Life Integration: Balancing Flexibility and Burnout.

The primary study's marginally negative WLI effect (β = -0.101) sparks debate when compared to other research: Mirbahaeddin and Chreim (2021) documented how COVID-19 remote work blurred boundaries, leading to burnout among peer support workers. This supports the primary study's caution against excessive integration, though their qualitative methodology (interviews with 24 workers) lacks the statistical power of regression analysis. Seeber and Erhardt (2023) noted that flexible boundaries improve satisfaction, but only when employees retain control, echoing the primary study's BC findings. Their research on crowd workers suggests that autonomy is the key variable, not integration per se. However, Dexiang *et al*. (2023) reported that family boundary flexibility enhances work engagement in China, seemingly contradicting the primary study's WLI results. This divergence may reflect cultural differences (collectivist vs. individualist norms) or industry-specific factors (corporate vs. healthcare workers).

The primary study adopts a quantitative regression methodology, utilizing a substantial sample of 351 respondents, positioning it among the most comprehensive investigations in this field. In contrast, previous research, such as Klimow's small-scale study (n = 4) and Austinson's mixed-methods research, employed smaller or more varied methodological designs. The primary aim of the current study is to investigate how Work-Life Integration (WLI), Work-Life Segmentation (WLS), and Boundary Control (BC) impact Employee Work-Life Balance (EWLB). While related research has explored adjacent themes such as boundary management practices, remote work dynamics, and segmentation strategies, this study offers a more integrated perspective by examining the combined influence of these three constructs. In doing so, it builds upon and extends prior literature by addressing how organizational and individual-

level boundary mechanisms collectively shape employees' ability to achieve balance across professional and personal domains. A major contribution of the primary study is its cultural context Uganda, a region largely unexplored in prior research. Most existing studies focus on Western (USA, Europe) and Asian (China) settings, creating a gap in understanding work-life dynamics in African healthcare sectors. Additionally, the study employs a cross-sectional design, whereas only a few studies, such as Kathrin & De Gieter, utilize longitudinal approaches. The sample size also varies across studies, with some as small as n=4 and others reaching n=433.

Across studies, work-life segmentation (WLS) is universally critical for work-life balance. Organizational support, such as flexible policies and empathetic leadership, consistently improves employee well-being. Similarly, boundary control (BC) plays a key role in permeable boundaries tend to increase work-life conflict, whereas deliberate segmentation strategies enhance balance. However, work-life integration (WLI) requires caution; while some integration can be beneficial, excessive blurring of work and personal life may lead to overload unless paired with strong BC and WLS.

The primary study's findings align with global research on the significance of work-life segmentation (WLS) and boundary control (BC) while offering new insights into work-life integration (WLI) within Uganda's healthcare sector. However, cultural, methodological, and occupational differences highlight the need for further research. Practically, organizations should prioritize supportive policies and boundary-management training to enhance work-life balance, while integration strategies like remote work must be carefully implemented to ensure employees maintain control over boundaries. Theoretically, boundary theory appears to have

cross-cultural relevance but may require adaptation to local workplace norms, and future research should incorporate longitudinal, multi-industry approaches to refine these insights.

The present study identifies a significant positive relationship between boundary management and employee work-life balance (EWLB). The regression analysis reveals an unstandardized coefficient of 0.528 ($p < 0.001$), indicating that a one-unit improvement in boundary management effectiveness results in a 0.528-unit increase in EWLB. The standardized coefficient ($\beta = 0.469$) reflects a moderate to strong effect size, suggesting that employees who actively regulate the boundaries between their professional and personal lives are more likely to achieve higher levels of work-life balance. These findings are consistent with boundary theory, which asserts that clear distinctions between work and non-work roles reduce role conflict and enhance overall well-being. From a practical standpoint, organizations can apply these insights by promoting flexible work arrangements, establishing digital disconnection norms, and setting clear expectations regarding working hours to help employees maintain healthier boundaries. Despite this positive association, existing literature presents mixed results regarding the effectiveness of boundary management strategies. Such variation can be attributed to contextual, methodological, and theoretical differences across studies, underscoring the multifaceted nature of work-life balance interventions and the need for a nuanced interpretation of empirical findings.

Nonetheless, several studies support the present findings by affirming the value of effective boundary management. For example, Castro (2020), in a study conducted in Portugal, found that clear segmentation between work and personal life significantly improved work-family balance, particularly when reinforced by family-friendly organizational policies. Similarly, Mellner (2013), in a Swedish context, observed that employees, especially men who favored

segmentation, reported higher boundary control and better work-life balance outcomes. Berger's (2023) U.S.-based research further echoed these conclusions, showing that remote workers who proactively managed their boundaries experienced sustained improvements in work-life balance, although short-term flexibility also contributed positively. Additionally, Wepfer *et al*. (2018), in a large-scale study across Germany, Austria, and Switzerland, demonstrated that blurred work-life boundaries were associated with increased exhaustion and diminished well-being, while structured boundary strategies significantly enhanced work-life outcomes. These consistent findings across diverse contexts strongly support the value of deliberate boundary management strategies, whether through segmentation or controlled flexibility.

However, other studies present important counterpoints that challenge the universal effectiveness of boundary management. Jostell's (2018) Swedish research found that teleworking after regular hours didn't necessarily impair work-life balance unless boundaries became excessively permeable, allowing work to consistently intrude on personal time. The COVID-19 pandemic provided a unique test case, with Adisa *et al*.'s (2022) UK study revealing that mandatory remote work arrangements - implemented without employee autonomy - actually reduced flexibility and increased stress despite boundary management efforts. Similarly, Mirbahaeddin and Chreim's (2021) Canadian study of peer support workers showed that sudden transitions to home-based work created significant boundary challenges, though some workers successfully adapted through temporal and spatial segmentation strategies. Collectively, these findings suggest that although boundary management tends to enhance work-life balance, its effectiveness may be compromised by structural barriers such as inflexible organizational policies or excessive job demands that limit employees' ability to implement and sustain effective boundary strategies.

The cultural and contextual dimensions of boundary management emerge as particularly crucial factors when comparing findings across studies. Our Ugandan healthcare context differs substantially from many previous research settings in ways that significantly influence boundary management outcomes. The high-demand, low-resource environment of Uganda's national referral hospitals creates unique challenges that may deepen boundary management difficulties and make traditional segmentation approaches harder to implement. This contrasts sharply with many Western studies (e.g., Mellner 2013, Wepfer 2018) that typically examine knowledge workers in flexible employment situations where boundary control is more feasible. Cultural norms also play a pivotal role - while individualistic cultures like Sweden and the U.S. tend to prefer clear segmentation between work and personal life, collectivist cultures such as Uganda's may naturally accommodate more integration due to communal living arrangements and social expectations. These contextual differences strongly suggest that boundary management strategies cannot be universally applied but must be carefully adapted to local circumstances and cultural norms.

Methodological variations across studies further complicate direct comparisons and may contribute to apparent inconsistencies in findings. Several studies suffer from significant design limitations that constrain their generalizability. For instance, Klimow's (2020) German research included only four participants, while many others (Castro 2020; Berger 2023; Jostell 2018) relied on cross-sectional designs that cannot establish causal relationships. The common use of convenience sampling, as seen in Mirbahaeddin and Chreim's (2021) single-organization study, raises additional concerns about potential sampling bias. Our current study addresses several of these limitations by employing rigorous regression analysis with statistical controls for confounding variables like social norms and spillover effects. Furthermore, by focusing on

Uganda's healthcare sector, we fill an important geographical and occupational gap in the existing literature.

Theoretical perspectives on boundary management have also evolved, moving beyond simple segmentation-integration dichotomies. Kossek *et al*.'s (2012) U.S. research convincingly argues that no single boundary management strategy suits all employees, emphasizing the importance of individual differences in preferences and needs. Reinke and Gerlach's (2021) Swiss-Norwegian study introduced the valuable concept of asymmetric boundaries, finding that strict work-to-nonwork segmentation combined with flexible nonwork-to-work permeability enhanced well-being. Perhaps most notably, De Gieter *et al*.'s (2022) study in Belgium emphasized that the congruence between employees' boundary management preferences and organizational practices (referred to as "boundary fit") is a more critical determinant of work-life balance than the specific boundary strategy employed. These nuanced theoretical developments suggest that future research and practical applications should adopt more flexible, personalized approaches to boundary management rather than prescribing universal solutions.

4.9.3 The effect of social norms on the work-life balance of employees in national referral hospitals in Kampala.

The regression analysis from the primary study provides compelling evidence regarding the influence of social responsibility (SR), Social desirability (SD), and Agreeableness (AGR) on employee work-life balance (EWLB). The findings reveal distinct patterns in how these factors contribute to EWLB, with varying degrees of significance and impact. Agreeableness (AGR) emerged as the strongest predictor of employee work-life balance, with a standardized coefficient of $\beta = 0.380$ ($p < 0.001$). This suggests that individuals who score higher on agreeableness (and who are therefore more cooperative, empathetic, and

accommodating) tend to report better balance between their professional and personal lives. This finding aligns with self-determination theory, which emphasizes the importance of autonomy and supportive interpersonal environments in fulfilling basic psychological needs. When employees feel respected, valued, and in control of their work processes and career progression, they are more likely to experience reduced work-related stress and improved overall well-being.

Social desirability (SD) also demonstrates a robust positive effect ($\beta = 0.248$, $p < 0.001$), suggesting that opportunities for professional growth contribute meaningfully to balance. Employees who engage in continuous learning may feel more competent and valued, mitigating feelings of stagnation that often worsen work-life conflict. At the same time, social responsibilities (SR) exhibit a smaller but still significant effect ($\beta = 0.146$, $p = 0.043$), reinforcing that workplace friendship and supportive networks contribute to balance, though less directly than AGR or SD. The model explains 53.1% of the variance in EWLB, indicating these three factors collectively account for a substantial portion of work-life balance dynamics. However, the Durbin-Watson statistic (0.542) suggests potential autocorrelation, implying that temporal factors (e.g., workload fluctuations or tenure effects) may also play an unmeasured role.

Concerning Agreeableness (AGR), the primary study's emphasis on AGR as the most influential factor resonates with multiple scholars but also reveals contextual nuances: Sultan *et al*. (2017) found that supervisor support for autonomy (e.g., flexible scheduling) enhanced work-life balance in Iran, particularly in a culture where such practices were rare. This mirrors the primary study's AGR findings but highlights how cultural scarcity can amplify autonomy's perceived value. Mustafa and Jayashree (2014) observed that top-down cultural flexibility in a

United Arab Emirates (UAE) firm indirectly promoted balance, supporting the idea that structural autonomy (e.g., informal policies) matters as much as individual control. Contrastingly, Malik & Khalid (2008) reported that Pakistani bank employees had little autonomy due to rigid norms, leading to an imbalance. This suggests that AGR's impact may be culturally contingent, stronger in individualistic or flexible work cultures than in hierarchical ones.

On Social desirability (SD), the primary study's SD results align with career-development literature but diverge in emphasis: Raj (2017) linked skill-building programs in Indian banks to higher job satisfaction and lower absenteeism, indirectly supporting EWLB. However, his study framed SD as a mediator (via career growth) rather than a direct predictor, as in the primary study. Mwangi *et al*. (2017) found that employee assistance programs (e.g., training) improved performance in Kenyan universities but did not explicitly tie them to work-life balance. This gap suggests SD's role may be context-specific, more salient in skill-driven sectors (e.g., tech) than in administrative roles.

While under Social responsibilities (SR), this study's modest SR effect contrasts with more pronounced findings elsewhere: Kurtuluş *et al*. (2023) identified social support as critical for psychological well-being, which then improved balance, a mediated relationship not captured in the primary study's direct-effects model. Rastogi & Bansal (2012) emphasized spousal support as pivotal for Indian working women, suggesting that non-work social ties may outweigh workplace relationships in collectivist cultures. However, Simard (2011) found that supervisor empathy (a subset of SR) was more impactful than peer relationships, implying that hierarchical support may matter more than lateral ties in certain settings.

In the same breath, Social Norms and Cultural Context does not explicitly measure social norms, but comparative literature reveals their latent influence: Brett & Stroh (2003) and Warren (2003) documented how escalating work norms (e.g., constant availability) perpetuate imbalance, explaining why even high AGR/SD may fail if societal expectations demand overwork. Ren and Caudle (2020) showed that gender norms in academia differentially strain men and women, suggesting that normative pressures (e.g., "ideal worker" stereotypes) may moderate the primary study's predictors. Kumar (2010) highlighted how migrant domestic workers in Malaysia faced imbalance due to intersectional norms (gender, class, ethnicity), underscoring the need to contextualize EWLB models.

The current study demonstrates methodological strengths through its quantitative rigor, integrated model, and valuable non-Western context (focusing on Uganda to address the predominant Western/Asian bias in work-life research); however, it also presents limitations including potential unmodeled temporal dynamics (suggested by the low Durbin-Watson statistic of 0.542 that may indicate seasonal or time-sensitive effects not captured in the cross-sectional design), incomplete cultural specificity (possibly overlooking unique Ugandan workplace norms like communal values and informal economic structures that could modify predictor effects), and insufficient examination of intersectional factors (unlike studies such as Sun (2021) and Rastogi & Bansal (2012), it does not investigate how gender, class, or family roles might interact with the key predictors), highlighting the need for future longitudinal, culturally-embedded, and intersectional research designs to fully contextualize these work-life balance dynamics.

The study found that social norms are the most significant predictor of employee work-life balance (EWLB), exhibiting a strong positive association ($B = 0.641$, $\beta = 0.603$, $p < 0.001$).

This suggests that workplace cultures fostering work-life balance through shared expectations and behaviors exert nearly twice the influence of factors such as boundary management. Specifically, a one-unit increase in supportive social norms (manifested through practices like discouraging excessive overtime, respecting employees' personal time, and leaders exemplifying healthy work-life behaviors) correlates with a 0.641-unit improvement in EWLB. These findings highlight the pivotal role of collective workplace values and norms in shaping employees' work-life experiences, beyond the effects of formal policies or individual boundary control. The strength of this relationship finds support across multiple studies, though with important contextual variations. Mustafa and Jayashree's (2014) research in the UAE demonstrated how top-down cultural acceptance of work-life balance in an Abu Dhabi firm created informal flexibility more effective than formal policies. Similarly, Wilk's (2013) study of U.S. university administrators found that workplace norms significantly influenced balance experiences, particularly in the absence of formal policies. These findings collectively suggest that social norms operate as both amplifiers and enforcers of work-life balance, creating peer-level accountability that formal policies often lack.

However, the mechanisms through which social norms influence EWLB vary considerably across cultural contexts. While our Ugandan findings emphasize collective norm enforcement, Rastogi and Bansal's (2012) Indian study highlighted how gendered social norms shape work-life experiences differently for men and women. In collectivist cultures like Uganda and India, social norms often manifest through family and community expectations, whereas individualistic societies like Australia (Sun, 2021) show more variation in personal norm adoption. This cultural dimension helps explain why social norms emerge as particularly powerful in our Ugandan healthcare context, where communal values strongly influence workplace behaviors.

The potency of social norms also appears sector-dependent. Kurtuluş *et al*.' (2023) Turkish university study found social support significantly impacted wellbeing, while Sultan *et al*.'s (2017) Iranian research showed supervisor support becoming particularly valuable in its cultural absence. This contrasts with our healthcare setting, where normative expectations permeate peer interactions beyond just supervisory relationships. The "always-on" norms common in healthcare (as shown in Malik & Khalid's 2008 Pakistani bank study) may make counter-norms promoting balance particularly impactful when successfully established. Several studies qualify our findings by demonstrating boundary conditions for norm effects. Ren and Caudle's (2020) UK-China comparison revealed how academic norms differentially affected genders, while Larson *et al*.'s (2008) Singaporean research showed norm effects varying by family stage. These studies suggest that while social norms powerfully shape EWLB overall, their impact moderates based on individual characteristics and life circumstances - an important consideration for applying our findings.

Methodologically, our quantitative approach contrasts with many previous studies (e.g., Kumar's 2010 qualitative work on Malaysian migrants or Simard's 2011 narrative inquiry), allowing more precise measurement of norm effects but potentially missing nuanced cultural meanings. The consistency of our findings with diverse methodologies, however, strengthens confidence in social norms' robust influence across contexts.

4.9.4 The central role of social norms in shaping work-life balance

This study affirms the critical influence of social norms in shaping employees' ability to attain sustainable work-life balance within national referral hospitals in Kampala, Uganda. Findings reveal that deeply fixed cultural expectations, especially those related to gender roles, continue to exert pressure on individuals, particularly women, who are socially ascribed the primary responsibility for caregiving and domestic duties. These norms persist despite women's full-

time employment in high-demand healthcare environments, resulting in a dual burden that undermines their well-being and professional engagement. These cultural expectations are reinforced by family structures, religious teachings, and broader societal attitudes, yet remain largely unaddressed within institutional frameworks. Although many hospitals maintain formal policies on leave and flexible working arrangements, these policies are frequently insufficient to accommodate the lived realities of employees managing caregiving responsibilities. Consequently, a significant gap emerges between institutional provisions and employees' practical needs, with women disproportionately affected. Importantly, social norms were also found to shape employees' perceptions of their roles and responsibilities, even in contexts where organizational structures allowed for flexibility. Male employees, for instance, were less likely to utilize available leave or remote work options due to fear of social stigma or perceptions of weakness, further establishing gender disparities in caregiving roles. These findings underscore that work-life balance should not be understood solely as a personal or managerial issue but rather as a societal concern rooted in a broader socio-cultural context.

From a theoretical perspective, these findings reinforce the relevance of boundary theory, which highlights the dynamic interaction between societal structures and individual agency in managing work and non-work domains.

They also align with gender role theory, which posits that culturally constructed expectations shape behavior across both private and public spheres. The data demonstrate how these frameworks manifest within hospital settings, often limiting employees' ability to achieve a balance between their professional and personal lives. Given the prominent societal role and visibility of hospitals, this study contends that such institutions are uniquely positioned to lead and model transformative change toward healthier work-life practices. By adopting and

advocating for inclusive, gender-responsive, and flexible work arrangements, hospitals can serve as catalysts for broader societal shifts. Initiatives such as gender-sensitive HR policies, internal awareness campaigns, and leadership advocacy could gradually challenge prevailing norms and redefine public expectations around caregiving and work. In the long term, such institutional reforms may contribute to a redistribution of domestic responsibilities, enhanced gender equity, and improved employee well-being. They may also influence future generations of healthcare workers and the wider public, initiating a gradual shift in the normative landscape.

In conclusion, social norms are not peripheral but central to the discourse on work-life balance. Addressing them requires a multidimensional approach, one that integrates institutional reform with societal reorientation. For meaningful and sustainable change, both male and female employees must be empowered to negotiate flexible arrangements without fear of social reprisal. The transformation of these norms, though incremental, is essential for fostering an equitable and supportive work environment in Uganda's public healthcare sector.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusions of the study, and recommendations for policy, academic, and practice. The areas that require further research are also proposed.

5.2 Summary of Findings:

5.2.1 The impact of spillover on the work-life balance of employees in national referral hospitals in Kampala.

The findings indicated that spill-over negatively affected the work-life balance of an employee. This significant effect highlighted how employees' emotional experiences at work play a crucial role in their capacity to achieve balance, emphasizing the need for supportive workplace environments and initiatives focused on emotional well-being. The findings underscored the crucial role of recruiting based on shared values and ensuring cultural alignment to foster balance. It further showed that EWLB exists even when all measured predictors are absent, implying other unmeasured factors contribute to balance. These results collectively suggest that comprehensive workplace strategies should prioritize emotional well-being and values alignment while incorporating behavioral components, recognizing their interrelated nature in shaping employees' work-life experiences.

5.2.2 The influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala.

The study conclusively determined that boundary management practices are a critical and statistically significant factor influencing the Employee Work-life Balance (EWLB) of employees in the high-demand environment of national referral hospitals in Kampala. The ability of employees to define, communicate, and maintain boundaries between their professional and personal lives was directly linked to their perceived balance, well-being, and

job satisfaction. The findings unequivocally demonstrate that in the intense context of Kampala's national referral hospitals, work-life balance is not a passive state but an active achievement. It is heavily dependent on the deliberate management of boundaries

5.2.3 The effect of social norms on the work-life balance of employees in national referral hospitals in Kampala.

The study revealed that social norms exert a powerful and often negative influence on the work-life balance (WLB) of employees, creating a culture where enduring extreme work demands is expected and prioritizing personal life is often stigmatized. These norms often override formal policies and deeply shape individual choices and well-being.

Agreeableness as the Dominant Predictor: AGR emerged as the strongest contributor to EWLB. This suggested that employees with higher agreeableness experience significantly better work-life balance. This indicates that workplace opportunities for positive social interactions and skill enhancement meaningfully contribute to improved work-life balance.

5.3 Conclusions

5.3.1 The impact of spillover on the work-life balance of employees in national referral hospitals in Kampala.

The study’s findings provide strong evidence that psychological factors play a crucial role in shaping employee work-life balance (EWLB).

Effective factors, particularly employees’ emotional connection to their work, emerge as the most influential predictor of work-life balance. This pronounced effect underscores the importance of cultivating a positive emotional environment in the workplace. Organizations should prioritize initiatives that promote emotional well-being, such as employee recognition programs, leadership development focused on supportiveness, and fostering psychologically safe workspaces. The strength of this relationship suggests that investments in enhancing

workplace emotional health may deliver greater improvements in work-life balance than conventional benefits alone.

The significant role of values congruence highlights the importance of alignment between employee and organizational values. This finding indicates that work-life balance is influenced not only by practical accommodations but also by deeper cultural compatibility. Human resource practices should emphasize values-based recruitment and onboarding, while leadership should actively communicate and embody organizational values that resonate with employees' personal beliefs. The persistence of this effect suggests that such value alignment forms a stable foundation for sustainable work-life balance beyond specific policies or programs.

Organizations might develop targeted training programs focused on time management, boundary-setting, and stress reduction techniques. The other unmeasured factors - potentially including personal resilience, family support systems, or external social policies - likely play complementary roles in shaping work-life outcomes.

These findings collectively argue for a holistic approach to work-life balance that addresses multiple psychological dimensions simultaneously. Rather than focusing on single solutions, organizations should develop integrated strategies that: Cultivate positive emotional experiences at work, strengthen values alignment throughout the employee lifecycle, and provide behavioral skills training.

Acknowledge and adapt to individual differences in resilience levels and the availability of external support systems. The high explanatory power of the model suggests that this psychological framework captures the majority of systematic influences on work-life balance, providing organizations with clear priorities for intervention. Future research could explore how these factors interact with demographic variables or organizational contexts, while practitioners should focus on implementing comprehensive programs that address all three

psychological dimensions in a coordinated fashion. Ultimately, these findings position work-life balance not as a peripheral HR concern, but as a central strategic outcome that emerges from thoughtfully designed psychological work environments.

The spillover effect exhibits a small-to-moderate yet statistically significant negative influence on work-life balance contributing meaningfully to variations in employee well-being. However, its impact is considerably overshadowed by positive factors such as social norms. This suggests that spillover should be addressed within a broader, integrated well-being framework rather than in isolation. For hospital administrators, these findings quantify how pervasive workplace elements (including after-hours demands, emergency call responsibilities, and emotional residue from traumatic cases) systematically undermine staff well-being via spillover processes. These challenges are especially pronounced in high-intensity healthcare settings characterized by a culture of overtime and emotional contagion, underscoring the urgent need for structural interventions that effectively separate professional and personal life domains.

5.3.2 The influence of boundary management practices on the work-life balance of employees in national referral hospitals in Kampala.

First, work-life segmentation (WLS) emerged as the strongest and most statistically significant predictor of improved Employee Work-Life Balance (EWLB). This finding strongly supports organizational policies that encourage distinct boundaries between professional and private domains.

Boundary control (BC) showed a robust positive effect on EWLB. This suggests that employees who actively regulate and enforce boundaries between their roles experience significantly better balance, highlighting the value of workplace initiatives that empower individuals to manage their schedules and transitions effectively.

Work-life integration (WLI) exhibited a marginally negative association with EWLB. Although this effect was modest and borderline significant, it suggests that excessive integration without adequate boundary-setting may inadvertently reduce balance. Organizations that promote flexible or blended work arrangements should therefore complement these policies with training on boundary management to mitigate potential negative consequences.

The findings carry three key organizational implications. First, the demonstrated influence of boundary management on work-life balance elevates it from an individual coping strategy to a strategic organizational priority requiring structured support and institutional investment. When combined with strong supportive social norms, effective boundary management can amplify benefits, producing synergistic improvements in staff well-being beyond the sum of their individual effects. The demanding healthcare environment, where burnout risks threaten workforce sustainability, supporting boundary management emerges as a critical retention tool. Hospitals can protect their most valuable resource (skilled clinical staff) by fostering healthy work-life boundaries, thereby enhancing both employee well-being and organizational performance. Collectively, these findings position boundary management as a strategic advantage and essential priority for healthcare institutions aiming to optimize outcomes for staff and patients alike.

5.2.3 The effect of social norms on the work-life balance of employees in national referral hospitals in Kampala.

Our analysis identifies social norms as the most powerful predictor of employee work-life balance (EWLB). This suggests that an organizational culture fostering work-life balance (through practices like discouraging excessive overtime, respecting personal time, and leadership modeling healthy behaviors) exerts nearly double the influence of other factors.

5.4 Recommendations

The significant negative impact of work-life spillover demands immediate organizational interventions. Hospital administrators should implement strict policies to minimize work encroachment into personal time, including: establishing clear after-hours communication protocols, creating mandatory recovery periods after intense shifts, and developing emotional decompression programs for staff handling traumatic cases.

Given boundary management's substantial positive effect, hospitals should transform it from an individual responsibility to an organizational priority. Organizations should prioritize initiatives that promote emotional well-being, such as employee recognition programs, leadership development focused on supportiveness, and fostering psychologically safe workspaces. This requires comprehensive boundary control training for all staff, redesigning workflows to protect transition times between shifts, and equipping departments with boundary-supportive resources (e.g., scheduling autonomy tools). Leadership should particularly focus on cultivating these practices among middle managers, as their boundary management behaviors can create an EWLB improvement. Human resource practices should emphasize values-based recruitment and onboarding, while leadership should actively communicate and embody organizational values that resonate with employees' personal beliefs.

The influence of social norms, suggests culture change should be the cornerstone of EWLB improvement strategies. Executive leadership must: formally align organizational values with work-life balance principles, integrate EWLB metrics into hospital-wide performance evaluations, and visibly model boundary-respecting behaviors. Since supportive norms demonstrate nearly double the impact of other factors. These interventions should be phased according to their demonstrated effect sizes: (1) Immediate norm-shifting through leadership

modeling and policy changes, (2) Boundary management training within 3-6 months, and (3) Ongoing spillover monitoring systems.

Rather than focusing on single solutions, organizations should develop integrated strategies that: Cultivate positive emotional experiences at work, strengthen values alignment throughout the employee lifecycle, and provide behavioral skills training. The multiplier effect of combining these approaches (norms + boundary management) could potentially yield greater improvement, creating transformative change in healthcare worker wellbeing and retention. Regular reassessment should track the specific coefficient changes associated with each intervention to guide resource allocation.

5.5 Study Contributions

This study offers several key theoretical contributions to the work-life balance literature, especially within high-stress healthcare settings. Firstly, it provides robust quantitative evidence of the negative impact of work-life spillover, lending empirical support to role conflict theory by illustrating how interference between work and personal domains functions as a tangible stressor. The precise effect sizes move beyond previous qualitative accounts of spillover, giving researchers a valuable reference point for comparing findings across different occupational environments. Moreover, the results contribute to the conservation of resources theory by explicitly demonstrating how depletion of resources in one domain (work) directly diminishes resources available in another (personal life).

The study makes crucial theoretical contributions by demonstrating that institutional factors outweigh individual factors in determining work-life balance outcomes. This finding bridges institutional theory with work-family research, showing how normative systems function as collective resources that enable boundary management. These results support developing an

integrated theoretical framework that positions organizational culture as the primary scaffold enabling effective boundary management and spillover mitigation.

The study also advances methodology in work-life research by demonstrating how regression coefficients can be used comparatively to test theoretical propositions about factor hierarchies. The precise quantification of effect sizes allows future researchers to make theoretically informed predictions about intervention impacts across different organizational contexts. Collectively, these findings argue for revising work-life theories to better account for institutional and cultural forces that shape both boundary management efficacy and spillover experiences.

These findings provide empirically grounded strategies for enhancing work-life balance among healthcare professionals in demanding hospital environments. The results carry three key practical implications that hospital administrators should prioritize for immediate implementation.

First, the significant detrimental effect of work-life spillover. necessitates concrete organizational policies to minimize role conflict. Practical interventions should include: Structured recovery protocols mandating minimum rest periods between consecutive shifts; Clear communication guidelines prohibiting non-urgent work contact during off-hours and Trauma support systems providing immediate psychological debriefing after critical incidents. These measures should be implemented with the same urgency as clinical safety protocols, as they directly impact workforce sustainability.

Second, the substantial benefits of boundary management highlight critical opportunities for staff development. Healthcare institutions should: Incorporate boundary-setting modules

into mandatory training programs for all clinical staff, Design shift transition routines (e.g., 10-minute mindfulness sessions) to facilitate mental detachment, and establish technology-free periods where staff can fully disengage from work communications.

The influence of social norms demands a cultural transformation approach. Leadership must institutionalize work-life balance by including it in hospital quality metrics and executive KPIs, redesign reward systems to recognize teams that maintain healthy work practices, and implement peer-support networks that reinforce positive boundary behaviors. With nearly double the impact of other factors, culture change initiatives offer the highest return on investment for long-term workforce well-being.

The study provides hospital administrators with quantifiable evidence to justify policy reforms. Practically, this demands: (a) implementing mandatory "work detachment" protocols after shifts, (b) redesigning emergency call systems to minimize unnecessary interruptions, and (c) establishing trauma debriefing programs. These measures should be codified in HR policies as critical workforce health protections, similar to occupational safety standards. Reducing spillover could yield measurable improvements in staff retention and productivity metrics.

Boundary management's substantial effect necessitates organizational investment in: (a) department-specific boundary training programs, (b) scheduling systems that protect transition times between roles, and (c) physical "boundary spaces" for mental decompression. Policymakers should incorporate boundary competencies into healthcare accreditation standards, given their demonstrated impact on EWLB. Equipping staff with boundary control skills could be more cost-effective than many wellness programs currently implemented.

The influence of social norms requires leadership to: (a) formally include EWLB metrics in hospital scorecards, (b) mandate work-life balance training for all managers, and (c) implement "culture audits" to assess norm adherence. At the policy level, ministries of health should tie hospital funding partially to EWLB culture indicators,

5.6 Limitations to the Study

The study's cross-sectional design, capturing data at a single point in time, restricts the ability to draw causal inferences. Employing a longitudinal approach would provide deeper insights into how work-life balance changes over time. The study is conducted in national referral hospitals in Kampala, Uganda. While this provides valuable regional insights, the findings may not be generalizable to other industries, lower-tier hospitals, or different cultural and economic settings. While the model explains a significant portion of the variance in Employee Work-Life Balance (EWLB), it does not include external factors such as job demands, work autonomy, gender differences, or individual resilience strategies, all of which could also play a crucial role in shaping outcomes.

Additionally, given that survey respondents are hospital employees, their responses might be influenced by workplace expectations or concerns about employer perceptions, affecting the accuracy of self-reported data. While the study examines broad work-life balance predictors, it does not explore how factors like personality traits, job roles, or tenure might moderate these relationships. The study emphasizes the contributions of affect, behavior, and values in fostering work-life balance; however, it gives limited attention to work-life conflict, stress, and burnout, key elements that are central to comprehensive work-life research. While the study offers strong predictive insights, experimental or intervention-based research is needed to test whether modifying emotional well-being, values alignment, and behavior improves work-life balance outcomes.

5.7 Suggestion for Further Study

Given that the current study uses a cross-sectional design, future research should consider longitudinal methods to monitor changes in work-life balance over time. Such an approach would better establish causal links between affective, behavioral, and values-based factors and work-life balance, offering more comprehensive insights into the long-term impact of interventions on employees.

The study does not consider gender-based differences in work-life balance approaches, even though previous research highlights their potential impact. Future studies should investigate how men and women navigate work-life boundaries in distinct ways, particularly within high-pressure environments like hospitals, and evaluate whether tailored, gender-sensitive interventions are warranted.

Since this study centers on Uganda's national referral hospitals, future research should investigate how work-life balance dynamics differ across various cultural contexts and industries. Conducting comparative studies between healthcare sectors in Africa, Western countries, and Asia (or examining different professional fields) would provide valuable insights into how contextual factors shape work-life balance approaches.

REFERENCES

Adisa, T. A., Mordi, C., & Osabutey, E. L. (2017). Exploring the implications of the influence of organizational culture on work-life balance practices: Evidence from Nigerian medical doctors. Personnel Review, 46(3), 454–473. https://doi.org/10.1108/PR-05-2015-0138

Alice, N. D. (2018). Work-life balance, job satisfaction, and organizational commitment among nurses of Kiruddu General Hospital [Doctoral dissertation, Makerere University]. Makerere University Institutional Repository.

Allen, T. D., French, K. A., Dumani, S., & Shockley, K. M. (2020). A cross-national meta-analytic examination of predictors and outcomes associated with work-family conflict. Journal of Applied Psychology, 105(6), 539–576. https://doi.org/10.1037/apl0000442

Andrighetto, G., Grieco, D., & Tummolini, L. (2015). Perceived legitimacy of normative expectations motivates compliance with social norms when nobody is watching. Frontiers in Psychology, 6, Article 1413. https://doi.org/10.3389/fpsyg.2015.01413

Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a day's work: Boundaries and micro role transitions. Academy of Management Review, 25(3), 472–491. https://doi.org/10.5465/amr.2000.3363315

Asiamah, N., Mensah, H., & Oteng-Abayie, E. F. (2017). General, target, and accessible population: Demystifying the concepts for effective sampling. The Qualitative Report, 22(6), 1607–1621. https://doi.org/10.46743/2160-3715/2017.2674

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. Journal of Occupational Health Psychology, 10(2), 170–180. https://doi.org/10.1037/1076-8998.10.2.170

Basile, K. A., & Beauregard, T. A. (2020). Boundary management: Getting the work-home balance right. In P. Brough & E. Gardiner (Eds.), Agile working and well-being in the digital age (pp. 35–46). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-60283-3_3

Beham, B., Drobnič, S., Präg, P., Baierl, A., & Eckner, J. (2019). Part-time work and gender inequality in Europe: A comparative analysis of satisfaction with work-life balance. European Societies, 21(3), 378–402. https://doi.org/10.1080/14616696.2018.1473627

Beigi, M., Shirmohammadi, M., & Stewart, J. (2018). Flexible work arrangements and work-family conflict: A metasynthesis of qualitative studies among academics. Human Resource Development Review, 17(3), 314–336. https://doi.org/10.1177/1534484318783816

Boxall, P., Ang, S. H., & Bartram, T. (2011). Analysing the "black box" of HRM: Uncovering HR goals, mediators, and outcomes in a standardized service environment. Journal of Management Studies, 48(7), 1504–1532. https://doi.org/10.1111/j.1467-6486.2010.00973.x

Brett, J. M., & Stroh, L. K. (2003). Working 61 plus hours a week: Why do managers do it? Journal of Applied Psychology, 88(1), 67–78. https://doi.org/10.1037/0021-9010.88.1.67

Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2001). Applied business research: Qualitative and quantitative methods. John Wiley & Sons.

Christensen, J. F., Guschke, B. L., Storm, K. I. L., & Muhr, S. L. (2022). The norm of norms in HRM research: A review and suggestions for future studies. Human Resource Management Review, 32(4), 100859. https://doi.org/10.1016/j.hrmr.2021.100859

Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity, and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), The handbook of social psychology (4th ed., Vol. 2, pp. 151–192). McGraw-Hill.

Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. Journal of Personality and Social Psychology, 58(6), 1015–1026. https://doi.org/10.1037/0022-3514.58.6.1015

Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. Human Relations, 53(6), 747–770. https://doi.org/10.1177/0018726700536004

Cobb, H. R., Murphy, L. D., Thomas, C. L., Katz, I. M., & Rudolph, C. W. (2022). Measuring boundaries and borders: A taxonomy of work-nonwork boundary management scales. Journal of Vocational Behavior, 137, 103760. https://doi.org/10.1016/j.jvb.2022.103760

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.). Lawrence Erlbaum Associates.

Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education (6th ed.). Routledge.

Creswell, J. W. (2008). Research design: Qualitative, quantitative, and mixed methods approaches (3rd ed.). Sage Publications.

Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). Sage Publications.

Crowe, M. L., Lynam, D. R., & Miller, J. D. (2018). Uncovering the structure of agreeableness from self-report measures. Journal of Personality, 86(5), 771–787. https://doi.org/10.1111/jopy.12358

Dagget, T., Molla, A., & Belachew, T. (2016). Job-related stress among nurses working in Jimma Zone public hospitals, South West Ethiopia: A cross-sectional study. BMC Nursing, 15, Article 39. https://doi.org/10.1186/s12912-016-0158-2

De Simone, S., Lampis, J., Lasio, D., Serri, F., Cicotto, G., & Putzu, D. (2014). Influences of work-family interface on job and life satisfaction. Applied Research in Quality of Life, 9(4), 831–861. https://doi.org/10.1007/s11482-013-9272-4

Denson, N., Szelényi, K., & Bresonis, K. (2018). Correlates of work-life balance for faculty across racial/ethnic groups. Research in Higher Education, 59(2), 226–247. https://doi.org/10.1007/s11162-017-9464-2

Denzin, N. K. (2001). Interpretive interactionism (2nd ed.). Sage Publications.

Derks, D., van Duin, D., Tims, M., & Bakker, A. B. (2015). Smartphone use and work-home interference: The moderating role of social norms and employee work engagement. Journal of Occupational and Organizational Psychology, 88(1), 155–177. https://doi.org/10.1111/joop.12083

Doherty, A., Miller, R. J., & Hill, C. (2019). Positive work-family spillover: From research application. Journal of Business and Psychology, 34(1), 1–13. https://doi.org/10.1007/s10869-018-9539-2

Dousin, O., Collins, N., Bartram, T., & Stanton, P. (2021). The relationship between work-life balance, the need for achievement, and intention to leave: A mixed-method study. Journal of Advanced Nursing, 77(3), 1478–1489. https://doi.org/10.1111/jan.14660

Drost, E. A. (2011). Validity and reliability in social science research. Education Research and Perspectives, 38(1), 105–124. https://doi.org/10.3316/aeipt.192110

Faraway, J. J. (2012). Practical regression and ANOVA using R. Retrieved March 11, 2016, from http://cran.r-project.org/doc/contrib/Faraway-PRA.pdf

Gagné, L. (2007). Non-rational compliance with social norms: Sincere and hypocritical. Social Science Information, 46(3), 445–469. https://doi.org/10.1177/0539018407079726

Gardner, D. M., Lauricella, T., Ryan, A. M., Wadlington, P., & Elizondo, F. (2021). Managing boundaries between work and non-work domains: Personality and job characteristics and adopted style. Journal of Occupational and Organizational Psychology, 94(1), 132–159. https://doi.org/10.1111/joop.12333

Gatrell, C. J., & Cooper, C. L. (2008). Work-life balance: Working for whom? European Journal of International Management, 2(1), 71–86. https://doi.org/10.1504/EJIM.2008.016936

Gelman, A., & Hill, J. (2006). Data analysis using regression and multilevel/hierarchical models. Cambridge University Press.

Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. Academy of Management Review, 31(1), 72–92. https://doi.org/10.5465/amr.2006.19379625

Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work-family balance and quality of life. Journal of Vocational Behavior, 63(3), 510–531. https://doi.org/10.1016/S0001-8791(02)00042-8

Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. Journal of Occupational Health Psychology, 5(1), 111–126. https://doi.org/10.1037/1076-8998.5.1.111

Haar, J. M., Russo, M., Suñe, A., & Ollier-Malaterre, A. (2014). Outcomes of work-life balance on job satisfaction, life satisfaction, and mental health: A study across seven cultures. Journal of Vocational Behavior, 85(3), 361–373. https://doi.org/10.1016/j.jvb.2014.08.010

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed.). Prentice Hall.

Hall, D. T., & Richter, J. (1988). Balancing work life and home life: What can organizations do to help? Academy of Management Perspectives, 2(3), 213–223. https://doi.org/10.5465/ame.1988.4274672

Hansen, G. C., Hammer, L. B., & Colton, C. L. (2006). Development and validation of a multidimensional scale of perceived work-family positive spillover. Journal of Occupational Health Psychology, 11(3), 249–265. https://doi.org/10.1037/1076-8998.11.3.249

Hechter, M., & Opp, K.-D. (2001). Social norms. Russell Sage Foundation.

Hou, X., Allen, T. A., Wei, D., Huang, H., Wang, K., DeYoung, C. G., & Qiu, J. (2017). Trait resilience and work-family conflict: A multi-sample study. Personality and Individual Differences, 113, 165–170. https://doi.org/10.1016/j.paid.2017.03.024

Hussain, R. I., & Mujtaba, B. G. (2012). The relationship between work-life conflict and employee performance: A study of National Database and Registration Authority workers in Pakistan. Journal of Knowledge Management, Economics and Information Technology, 2(6), 84–94.

Izdebski, Z., Kozakiewicz, A., Białorudzki, M., Dec-Pietrowska, J., & Mazur, J. (2023). Occupational burnout in healthcare workers, stress and other symptoms of work overload during the COVID-19 pandemic in Poland. International Journal of Environmental Research and Public Health, 20(3), 2428. https://doi.org/10.3390/ijerph20032428

Johnson, B. R. (2007). Examining the validity structure of qualitative research. Education, 118(3), 282–292.

Kabunga, A., Kigongo, E., Okalo, P., Udho, S., Grace, A. A., Tumwesigye, R., & Namata, H. (2024). Burnout and coping mechanisms among healthcare professionals in central Uganda. Frontiers in Psychiatry, 15, 1373743. https://doi.org/10.3389/fpsyt.2024.1373743

Kakembo, N., Godier-Furnemont, A., Nabirye, A., Cheung, M., Kisa, P., Muzira, A., & Ozgediz, D. (2019). Barriers to pediatric surgical care in low-income countries: The delays' impact in Uganda. Journal of Surgical Research, 242, 193–199. https://doi.org/10.1016/j.jss.2019.04.058

Kashive, N., Sharma, B., & Khanna, V. T. (2021). Work from home: Understanding boundary management profiles using boundary-fit perspective. International Journal of Organizational Analysis, 30(7), 131–147. https://doi.org/10.1108/IJOA-04-2020-2131

Kinnunen, U., Feldt, T., Geurts, S., & Pulkkinen, L. (2006). Types of work-family interface: Well-being correlates with negative and positive spillover between work and family. Scandinavian Journal of Psychology, 47(2), 149–162. https://doi.org/10.1111/j.1467-9450.2006.00502.x

Kizza, I. B., Tugumisirize, J., Tweheyo, R., Mbabali, S., Kasangaki, A., Nshimye, E., & Kennedy, C. E. (2011). Makerere University College of Health Sciences' role in addressing challenges in health service provision at Mulago National Referral Hospital. BMC International Health and Human Rights, 11(Suppl. 1), S7. https://doi.org/10.1186/1472-698X-11-S1-S7

Kombo, D. K., & Tromp, D. L. A. (2006). Proposal and thesis writing: An introduction. Paulines Publications Africa.

Kothari, C. R., & Garg, G. (2014). Research methodology: Methods and techniques (2nd ed.). New Age International.

Kreiner, G. E. (2006). Consequences of work-home segmentation or integration: A person-environment fit perspective. Journal of Organizational Behavior, 27(4), 485–507. https://doi.org/10.1002/job.386

Kutner, M. H., Nachtsheim, C. J., Neter, J., & Li, W. (2005). Applied linear statistical models (5th ed.). McGraw-Hill.

Lee-Peng, N., Kuar, L. S., & Cheng, W. H. (2016). Influence of work-family conflict and work-family positive spillover on healthcare professionals' job satisfaction. Business Management Dynamics, 5(11), 1–15.

Marques, V. C., & Berry, G. R. (2021). Enhancing work-life balance using a resilience framework. Business and Society Review, 126(3), 263–281.https://doi.org/10.1111/basr.12237

Menard, S. (1995). Applied logistic regression analysis. Sage Publications.

Mugenda, O. M., & Mugenda, A. G. (2003). Research methods: Quantitative and qualitative approaches. Acts Press.

Mulegi, T. (2022). Evaluation of the skill mix of health professionals in government regional referral hospitals in Uganda. IDOSR Journal of Arts and Management, 7(1), 43–68.

Mwizerwa, J. (2023). Strengthening educational advancement for enrolled nurses: Developing a new program framework for Uganda [Doctoral dissertation]. [Repository not specified; please provide if needed].

Nelson, T., Twimukye, A., Gwokyalya, A. M., Nakityo, I., Wasswa, E., Sserunjogi, E., & Rwamafa, P. (2021). "Sometimes you reach a point where you feel burnt out": Job satisfaction and psychosocial well-being of COVID-19 frontline health workers: A qualitative study in two Ugandan COVID-19 treatment centres. [Journal not specified; please provide if needed].

Ntege, A. S. (2015). Factors influencing work-burnout among nurses on medical and surgical ward: A case study of Mulago National Referral Hospital [Doctoral dissertation, International Health Sciences University]. International Health Sciences University Repository.

O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. Quality & Quantity, 41(5), 673–690. https://doi.org/10.1007/s11135-006-9018-6

Peng, C. (2017). Effect of negative work-to-family spillover on adolescent externalizing behavior via parental stress and parental involvement [Doctoral dissertation, Iowa State University]. Iowa State University Digital Repository.

Rashmi, K., & Kataria, A. (2023). The mediating role of work-life balance on the relationship between job resources and job satisfaction: Perspectives from Indian nursing professionals. International Journal of Organizational Analysis, 31(5), 1316–1342. https://doi.org/10.1108/IJOA-01-2022-3085

Rastogi, M., & Chaudhary, R. (2018). Job crafting and work-family enrichment: The role of positive intrinsic work engagement. Personnel Review, 47(3), 651–674. https://doi.org/10.1108/PR-04-2017-0117

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students (5th ed.). Pearson Education.

Sekaran, U., & Bougie, R. (2009). Research methods for business (5th ed.). Wiley.

Shabir, S., & Gani, A. (2020). Impact of work-life balance on organizational commitment of women health-care workers: Structural modeling approach. International Journal of Organizational Analysis, 28(4), 917–939. https://doi.org/10.1108/IJOA-08-2019-1847

Srivastava, S., & Beer, J. S. (2005). How self-evaluations relate to being liked by others: Integrating sociometer and attachment perspectives. Journal of Personality and Social Psychology, 89(6), 966–987. https://doi.org/10.1037/0022-3514.89.6.966

Talukder, A. M. H., & Galang, M. C. (2021). Supervisor support for employee work-life balance in Australia: Mediating role of work-life balance, job, and life attitude. Journal of Employment Counseling, 58(1), 2–22. https://doi.org/10.1002/joec.12154

Tarigan, J., Susanto, A. R. S., Hatane, S. E., Jie, F., & Foedjiawati, F. (2021). Corporate social responsibility, job pursuit intention, quality of work life and employee performance: Case study in Indonesia. International Journal of Organizational Analysis, 29(6), 1413–1431. https://doi.org/10.1108/IJOA-04-2020-2132

Tijani, B., Osei-Kyei, R., & Feng, Y. (2022). A review of work-life balance in the construction industry. International Journal of Construction Management, 22(14), 2671–2686. https://doi.org/10.1080/15623599.2020.1836834

Tolentino, L. R., Sibunruang, H., & Garcia, P. R. J. M. (2019). The role of self-monitoring and academic effort in students' career adaptability and job search self-efficacy. Journal of Career Assessment, 27(4), 726–740. https://doi.org/10.1177/1069072718765638

Van Duzer, N. (2021). Work-life intersections in peacebuilding, development, and humanitarian aid. Journal of Peacebuilding & Development, 16(3), 336–351. https://doi.org/10.1177/15423166211036492

Warren, D. E. (2003). Constructive and destructive deviance in organizations. Academy of Management Review, 28(4), 622–632. https://doi.org/10.5465/amr.2003.10836440

Wepfer, A. G., Allen, T. D., Brauchli, R., Jenny, G. J., & Bauer, G. F. (2018). Work-life boundaries and well-being: Does work-to-life integration impair well-being through lack of recovery? Journal of Business and Psychology, 33(6), 727–740. https://doi.org/10.1007/s10869-017-9520-5

Wilensky, H. L. (1960). Work, careers, and social integration. International Social Science Journal, 12(4), 543–560.

APPENDICES

Appendix I: Research Questionnaire (Data Collection Instrument)

Dear Participant,

This questionnaire is intended to support a study examining the role of spillover, boundary management, and social norms in shaping employees' work-life balance within national referral hospitals in Kampala. You have been selected as a respondent in this organization, and your participation is highly valued.

You are kindly requested to complete the questionnaire honestly and objectively. Please express your views freely by selecting the response that best reflects your perspective. All responses will be treated with strict confidentiality and used solely for academic purposes.

SECTION A: PERSONAL INFORMATION

Age group

20-30 years | 31-40 years | 41 -50 years | 51 and above years

Gender

Male | Female

Work Experience

< 5 years | 5-10 years | 11-20 years | 21 and above years

Marital status

Married | Not yet married | Divorced | Widowed

Job Role

Doctor | Nurse | Clinical Officer | Lab Tech

Midwives | Care Givers | Admins | Support

Psychiatrist

SECTION B: MEASUREMENT AND SCALES

INSTRUCTIONS: The following statements indicate the experiences of people who balance work and personal life activities at work and home. Read them carefully and compare yourself with such a person by circling the appropriate box using the scales provided below;

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

	Statement The following are statements about employees/health workers who balance work and personal life activities at work and home. Please indicate how accurately each of the following statements reflects your experience by circling the option that best represents your response.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
CODE	ITEM: TIME BALANCE	1	2	3	4	5
TB 1	I am able to maintain a healthy balance between my work responsibilities and my personal or non-work activities.	1	2	3	4	5
TB 2	My personal life gives me time for my job	1	2	3	4	5
TB 3	My job gives me time to pursue personal activities	1	2	3	4	5
TB 4	I have the time to reach my personal and career goals satisfactorily	1	2	3	4	5
TB 5	I am contented with the way I divide my time between work and non-work life	1	2	3	4	5
TB 6	I have sufficient time to live my life after work.	1	2	3	4	5
TB 7	I have sufficient time for my work	1	2	3	4	5
TB 8	I am satisfied with how I allocate my time between work and personal life.	1	2	3	4	5
TB 9	The time I spend on my personal life is equivalent to the time I spend on work.	1	2	3	4	5
	INVOLVEMENT BALANCE					
IB 1	My involvement in my work helps me to know different viewpoints and this helps me be a better family member.	1	2	3	4	5
IB 2	My involvement in my work helps me to gain knowledge and this helps me be a better family member.	1	2	3	4	5
IB 3	My involvement in my work helps me acquire skills and this helps me be a better family member	1	2	3	4	5
IB 4	My involvement in my work puts me in a good mood and this helps me be a better family member	1	2	3	4	5
IB5	My involvement in my work Makes me feel happy and this helps me be a better family member	1	2	3	4	5
IB6	My involvement in my work Makes me cheerful and this helps me be a better family member	1	2	3	4	5

IB7	My involvement in my work helps me feel personally fulfilled and this helps me be a better family member	1	2	3	4	5
IB8	My involvement in my work provides me with a sense of accomplishment and this helps me be a better family member.	1	2	3	4	5
IB 9	My involvement in my work provides me with a sense of success and this helps me be a better family member	1	2	3	4	5
	SATISFACTION BALANCE					
SB1	I am satisfied with how well I balance the demands of my job and my personal life.	1	2	3	4	5
SB 2	I am satisfied with how successfully I manage both my work and home responsibilities.	1	2	3	4	5
SB 3	I am happy with the contributions I make towards my home and family	1	2	3	4	5
SB 4	I am satisfied with the opportunities I have to effectively fulfill both my work and non-work responsibilities.	1	2	3	4	5
SB 5	I am satisfied with how I allocate my attention between work and personal life.	1	2	3	4	5
SB 6	I am satisfied with the balance I maintain between my job and my personal life.	1	2	3	4	5
SB 7	I am satisfied with how well my work life and personal life align with each other.	1	2	3	4	5
SB 8	I am satisfied with the level of success I have achieved in my career.	1	2	3	4	5
SB 9	I feel content with the state of my family life at present.	1	2	3	4	5
	STATEMENT The following are statements about people who possess Spillover. You are required to indicate the truthfulness of the following statements by circling the appropriate box	strongly disagree	Disagree	Neutral	Agree	Strongly agree
CODE	ITEM Behaviors	1	2	3	4	5
BH 1	The behaviors I use in my job help me perform better in my family life.	1	2	3	4	5
BH 2	Skills and behaviors I apply at work make it easier to handle my family responsibilities.	1	2	3	4	5
BH 3	When I succeed at work, I am better able to manage tasks at home.	1	2	3	4	5
BH 4	Abilities I develop at work contribute positively to my family life.	1	2	3	4	5
BH 5	Skills gained through family life help me perform better at my job.	1	2	3	4	5
BH 6	Successfully managing family responsibilities enhances my effectiveness at work.	1	2	3	4	4
	VALUES					
VA 1	Values developed at work make me a better family member.	1	2	3	4	5
VA 2	I apply the principles of my workplace values in family situations	1	2	3	4	5
VA 3	The values that I learn through my work experiences assist me in fulfilling my family responsibilities.	1	2	3	4	5

VA 4	I follow rules at all times, even when no one is watching me	1	2	3	4	5
VA 5	Rules and regulations are important because they inform me of what is expected of me.	1	2	3	4	5
VA 6	It is vital for me to closely follow instructions and procedures.	1	2	3	4	5
VA 7	I like to stand out and to impress other people.	1	2	3	4	5
VA 8	I want justice for everybody, even for people I don't know	1	2	3	4	5
VA 9	It's very important to me to care for the people I know and like.	1	2	3	4	5
	AFFECT/POSITIVE MOOD					
AF 1	Being in a positive mood at work helps me to be in a positive mood at home	1	2	3	4	5
AF 2	Being happy at work improves my feelings at home.	1	2	3	4	5
AF 3	Having a good day at work allows me to be optimistic with my family.	1	2	3	4	5
	Being happy at work improves my spirits at home.	1	2	3	4	5
AF 5	When things are going well at work, my outlook regarding my family responsibilities is improved.	1	2	3	4	5
AF 6	Having a good day at work improves my frame of mind concerning family responsibilities.	1	2	3	4	5
	STATEMENT The following are statements about people who possess boundary management. The following questions seek to measure Boundary Management. You are required to compare yourself to an individual with boundary management behavior by circling the appropriate response.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
CODE	ITEM: SEGMENTATION	1	2	3	4	5
SG 1	I do not bring work tasks home from the workplace.	1	2	3	4	5
SG 2	I avoid handling personal matters while at work.	1	2	3	4	5
SG 3	I do not communicate with family or friends during work hours.	1	2	3	4	5
SG 4	I have no personal items at my workplace.	1	2	3	4	5
SG 5	I never think about nonwork issues while I'm at work	1	2	3	4	5
SG 6	I do not arrive late or leave work early to attend to personal matters.	1	2	3	4	5
SG 7	I avoid handling personal tasks during my scheduled work hours.	1	2	3	4	5
SG 8	I do not discuss my personal life while at work.	1	2	3	4	5

SG 9	I do not perform my job duties from home.	1	2	3	4	5
	INTEGRATION					
IG 1	I frequently bring occupational work tasks home.	1	2	3	4	5
IG 2	I often discuss my job with people outside the workplace.	1	2	3	4	5
IG 3	I often perform my job duties from home.	1	2	3	4	5
IG 4	I frequently handle personal matters while at the workplace.	1	2	3	4	5
IG 5	I keep several personal items at my workplace.	1	2	3	4	5
IG 6	I often manage non-work tasks during my scheduled work hours.	1	2	3	4	5
IG 7	I frequently think about personal matters while at work.	1	2	3	4	5
IG 8	I regularly communicate with family or friends during work hours.	1	2	3	3	5
IG 9	I often talk about my non-work life while at work.	1	2	3	4	5
	Boundary control					
BC1	I have control over whether I separate my work and personal life.	1	2	3	4	5
BC2	I choose whether to maintain clear boundaries between my professional and personal life.	1	2	3	4	5
BC3	I decide if I integrate work and personal tasks throughout the day.	1	2	3	4	5
BC4	I choose whether to blend work and personal activities during the day.	1	2	3	4	5
	STATEMENT The following are statements about people who possess social norms. The following questions seek to measure Social Norms in the workplace. Read each statement carefully. Then, for each statement, evaluate yourself by selecting the corresponding number that best represents you by circling the appropriate response	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Code	Item: SOCIAL RESPONSIBILITY					
SR 1	I believe it is my personal responsibility to perform my job to the best of my ability.	1	2	3	4	5
SR 2	I can be better off if I live near other people and always do something good for them.	1	2	3	4	5
SR 3	I feel disappointed in myself when I fail to complete a task I committed to.	1	2	3	4	5
SR 5	I am always willing to dedicate some of my time to benefit my community.	1	2	3	4	5

SR 6	I don't feel anxious about current events or public affairs because I believe I can contribute to making a difference.	1	2	3	4	5
SR 7	I always volunteer for special projects in my community	1	2	3	4	5
	SOCIAL DESIRABILITY					
SD 1	I never hesitate to go out of my way to help someone in trouble	1	2	3	4	5
SD 2	I sometimes go on with my work even when I am not encouraged.	1	2	3	4	5
SD 3	I have never disliked anyone in my community	1	2	3	4	5
SD 4	I don't rebel against people in authority even though I know they are not right.	1	2	3	4	5
SD 5	I make an effort to be a good listener, regardless of who I'm speaking with.	1	2	3	4	5
SD 6	I remain courteous even when interacting with people I find unpleasant.	1	2	3	4	5
SD 7	I am generally content when people ask me for favors.	1	2	3	4	5
SD 8	I always try to avoid saying things that might hurt someone's feelings.	1	2	3	4	5
	AGREEABLENESS					
AGR 1	I see myself as someone who is understanding and easily forgives others if they make mistakes.	1	2	3	4	5
AGR 2	I am kind and generous towards others.	1	2	3	4	5
AGR 3	I see myself as someone who is socially confident.	1	2	3	4	5
AGR 4	I am consistently reliable and disciplined.	1	2	3	4	5
AGR 5	I am receptive to new experiences.	1	2	3	4	5
AGR 6	I consider myself to be highly self-aware.	1	2	3	4	5
AGR 7	I see myself as someone who is sympathetic and sincere	1	2	3	4	5
AGR 8	I see myself as someone who is organized and careful.	1	2	3	4	5
AGR 9	I see myself as someone who has a feeling for other people's emotions.	1	2	3	4	5
AGR12	I see myself as someone who is interested in others.	1	2	3	4	5

Appendix II: Letter of Approval from MUSERC

MASENO UNIVERSITYSCIENTIFIC AND ETHICS REVIEW COMMITTEE

Tel: +254 057 351 622 Ext: 3050
Fax: +254 057 351 221

Private Bag – 40105, Maseno, Kenya
Email: muerc-secretariate@maseno.ac.ke

REF: MSU/DRPI/MUSERC/01409/24 **Date**: 12th November, 2024

TO: Arinaitwe Enid
PHD/BE/00092/021
Department of Business Administration
School of Business and Economics
Maseno University
P. O. Box, Private Bag, Maseno, Kenya

Dear Madam,

Re: Spillover, Boundary Management, Social Norms and Employees' Work-Life Balance in Kampala National Referral Hospitals, Uganda

This is to inform you that **Maseno University Scientific and Ethics Review Committee (MUSERC)** has reviewed and approved your above research proposal. Your application approval number is MUSERC/01409/24.The approval period is 12th November, 2024– 11th November, 2025.

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by Maseno University Scientific and Ethics Review Committee (MUSERC).
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to Maseno University Scientific and Ethics Review Committee (MUSERC) within 24 hours of notification.
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to Maseno University Scientific and Ethics Review Committee (MUSERC) within 24 hours.
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to Maseno University Scientific and Ethics Review Committee (MUSERC).

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely

Dr. Boniface Anyona, PhD
Chairman, MUSERC

Appendix III: BSUREC Approval

BISHOP STUART UNIVERSITY
P.O.BOX 9, MBARARA

Tel: 0772 512551

Website: www.bsu.ac.ug
E-mail: rec@bsu.ac.ug/info@bsu.ac.ug

RESEARCH ETHICS COMMITTEE

05/09/2024

To: ARINAITWE ENID

MASENO UNIVERSITY
0782245302

Type: Initial Review

Re: BSU-REC-2024-407: SPILLOVER, BOUNDARY MANAGEMENT, SOCIAL NORMS AND EMPLOYEES' WORK-LIFE BALANCE IN NATIONAL REFERRAL HOSPITALS IN KAMPALA – UGANDA

I am pleased to inform you that at the **30** convened meeting on **13/08/2024**, the Bishop Stuart University (BSU) REC meeting voted to approve the above referenced application.
Approval of the research is for the period of **05/09/2024** to **05/09/2025.**

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the REC for re-review and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information which could change the risk benefit: ratio must be submitted to the REC.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by participants and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Continuing review application must be submitted to the REC **eight weeks** prior to the expiration date of **05/09/2025** in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. You are required to register the research protocol with the Uganda National Council for Science and Technology (UNCST) for final clearance to undertake the study in Uganda.

The following is the list of all documents approved in this application by Bishop Stuart University (BSU) REC:

No.	Document Title	Language	Version Number	Version Date
1	CONSENT FORM	English	Version 3	2024-09-04
2	Interview Guide	English	Version 1	2024-09-04
3	Data collection tools	English	Version 3	2024-09-04
4	COMPLIANCE REPORT	English	Version 3	2024-09-04
5	CONSENT FORM	English	Version 2	2024-08-22
6	COMPLIANCE REPORT	English	Version 2	2024-08-21
7	Data collection tools	English	Version 2	2024-08-21
8	Letter from faculty	English	Version 2	2024-08-21
9	Protocol	English	Version 3	2024-08-21

Yours Sincerely



Godfrey Rukundo
For: Bishop Stuart University (BSU) REC

Appendix IV: Ethical Clearance from Uganda National Council for Science and Technology

Uganda National Council for Science and Technology

(Established by Act of Parliament of the Republic of Uganda)

Our Ref: SS3333ES **31 October 2024**

ARINAITWE ENID
Ministry of Health, Wandegeya, Kampala
Kampala

Re: Research Approval: **SPILLOVER, BOUNDARY MANAGEMENT, SOCIAL NORMS AND EMPLOYEES' WORK-LIFE BALANCE IN NATIONAL REFERRAL HOSPITALS IN KAMPALA – UGANDA**

I am pleased to inform you that on **31/10/2024**, the Uganda National Council for Science and Technology (UNCST) approved the above referenced research project. The Approval of the research project is for the period of **31/10/2024** to **31/10/2025**.

Your research registration number with the UNCST is **SS3333ES**. Please, cite this number in all your future correspondences with UNCST in respect of the above research project. As the Principal Investigator of the research project, you are responsible for fulfilling the following requirements of approval:

1. Keeping all co-investigators informed of the status of the research.
2. Submitting all changes, amendments, and addenda to the research protocol or the consent form (where applicable) to the designated Research Ethics Committee (REC) or Lead Agency for re-review and approval **prior** to the activation of the changes. UNCST must be notified of the approved changes within five working days.
3. For clinical trials, all serious adverse events must be reported promptly to the designated local REC for review with copies to the National Drug Authority and a notification to the UNCST.
4. Unanticipated problems involving risks to research participants or other must be reported promptly to the UNCST. New information that becomes available which could change the risk/benefit ratio must be submitted promptly for UNCST notification after review by the REC.
5. Only approved study procedures are to be implemented. The UNCST may conduct impromptu audits of all study records.
6. An annual progress report and approval letter of continuation from the REC must be submitted electronically to UNCST. Failure to do so may result in termination of the research project.

No.	Document Title	Language	Version Number	Version Date
1	Data collection tools	English	VERSION 3	04 September 2024
2	Project Proposal	English	VERSION 3	
3	Approval Letter	English		
4	Administrative Clearance	English		

Please note that this approval includes all study related tools submitted as part of the application as shown below:

Yours sincerely,



Hellen Opolot

For: Executive Secretary

UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Appendix V: Raw Data

Age	Gender	Experience	Job Role	Marital	VAR00001	SR	SD	AGR	SG	IG	BC	BH	VA	AF	TB	IB	SB	EWLB	Spillover	BM	SN
1	1	2	5	1	3.50	3.50	3.50	4.00	3.50	3.50	3.50	4.00	3.50	2.50	3.50	4.00	3.00	3.50	3.50	3.33	3.50
2	1	1	5	2	3.50	3.50	3.50	4.00	3.50	3.50	3.50	4.00	3.50	2.50	3.50	4.00	3.00	3.50	3.50	3.33	3.50
2	1	1	2	2	3.50	3.50	3.50	4.00	3.50	3.50	3.50	4.00	3.50	2.50	3.50	4.00	3.00	3.50	3.50	3.33	3.50
2	2	2	5	2	3.50	3.50	3.50	4.00	3.50	3.50	3.50	4.00	3.50	2.50	3.50	4.00	3.50	3.50	3.50	3.33	3.67
2	2	1	2	1	4.00	3.50	3.50	4.00	4.00	3.50	3.50	4.00	4.00	2.50	3.50	4.00	3.50	3.50	3.67	3.50	3.67
2	1	1	5	2	4.00	3.50	3.50	4.00	4.00	3.50	3.50	4.00	4.00	2.50	4.00	4.00	3.50	3.67	3.67	3.50	3.83
3	2	2	2	2	4.00	3.50	3.50	4.00	4.00	3.50	3.50	4.00	4.00	2.50	4.00	4.00	3.50	3.83	3.67	3.50	3.83
2	2	1	2	1	4.00	3.50	4.00	4.00	4.00	3.50	4.00	4.00	4.00	2.50	4.50	4.00	3.50	3.83	3.83	3.50	4.00
2	1	2	2	2	4.00	3.50	4.00	4.00	4.50	3.50	4.00	4.00	4.50	2.50	4.50	4.00	3.50	3.83	3.83	3.67	4.00
2	2	2	5	2	4.00	3.50	4.00	4.00	4.50	3.50	4.00	4.00	4.50	3.00	4.50	4.00	3.50	3.83	3.83	3.83	4.00
2	1	1	2	1	4.00	3.50	4.00	4.00	4.50	3.50	4.00	4.00	4.50	3.00	4.50	4.00	3.50	3.83	3.83	3.83	4.00
2	2	2	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	3.00	4.50	4.00	3.50	3.83	4.00	3.83	4.00
2	1	1	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	3.00	4.50	4.00	4.00	4.00	4.00	3.83	4.17
1	1	2	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.00	4.00	4.00	4.17
1	1	1	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.00	4.00	4.00	4.17
3	2	2	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.00	4.00	4.00	4.17
2	2	3	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.00	4.00	4.00	4.17
2	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.17	4.00	4.00	4.17
1	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.17	4.00	4.00	4.17
1	1	1	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17
1	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17
1	1	1	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17
3	2	2	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17
2	1	1	1	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17
2	2	2	1	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17
3	1	2	1	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17
1	2	3	1	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17
1	1	2	1	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17

3	1	2	1	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	2	2	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	1	1	5	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	2	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	1	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	2	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
3	2	2	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	2	1	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	2	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	1	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
3	1	3	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	2	2	5	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	2	1	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	1	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	2	2	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
3	2	1	5	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	2	2	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	1	3	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	2	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	2	5	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	1	2	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
1	2	2	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
3	2	1	2	2	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17
2	1	1	2	2	4.00	4.00	4.00	4.50	4.50	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33
1	1	2	5	2	4.00	4.00	4.00	4.50	4.50	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33

1	2	1	5	2	4.00	4.00	4.00	4.50	4.50	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33
1	1	3	2	2	4.00	4.00	4.00	4.50	4.50	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33
1	2	2	2	2	4.00	4.00	4.00	4.50	4.50	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33
1	1	3	2	2	4.00	4.00	4.00	4.50	4.50	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33
1	1	2	2	1	4.00	4.00	4.00	4.50	4.50	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33
1	1	1	2	2	4.00	4.00	4.00	4.50	4.50	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33
3	1	2	5	1	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33
2	2	1	2	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33
1	1	1	5	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33
2	2	2	5	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33
1	1	1	6	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33
1	1	2	2	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
1	1	3	2	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
3	1	2	2	1	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
2	2	2	2	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
1	1	1	2	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
2	2	2	6	1	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
1	1	1	2	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
1	1	2	1	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
3	1	1	1	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
2	1	2	1	1	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
1	2	2	1	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
2	1	1	1	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
1	2	2	1	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
1	1	3	2	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
1	2	2	6	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33
3	2	1	6	1	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.50	4.17	4.67	4.33
1	2	2	2	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.50	4.17	4.67	4.33
2	1	2	2	2	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.50	4.17	4.67	4.33
2	1	1	2	1	4.00	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.50	4.17	4.67	4.33

1	2	2	3	2	4.50	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.33	4.67	4.50
1	1	2	6	2	4.50	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.33	4.67	4.50
1	1	1	2	1	4.50	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.33	4.67	4.50
1	1	2	6	2	4.50	4.50	4.00	4.50	4.50	4.50	4.00	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.33	4.67	4.50
3	1	3	2	2	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.50	4.67	4.50
3	2	2	1	2	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.50	4.67	4.50
2	2	2	1	2	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.50	4.67	4.50
1	1	2	1	1	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.50	4.67	4.50
1	1	1	3	2	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.50	4.67	4.67
1	1	2	6	1	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.50	4.67	4.67
1	1	2	6	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.67	4.67	4.67
1	1	2	6	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.67	4.67	4.67
1	1	1	6	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.67	4.67	4.67
1	2	2	3	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.67	4.67	4.67
1	1	2	6	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	4.50	4.50	4.67	4.67	4.83
1	2	1	2	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	4.50	4.50	4.67	4.67	4.83
3	1	2	2	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	4.50	4.50	4.67	4.67	4.83
3	1	3	3	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00
3	1	2	2	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00
2	1	1	3	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00
1	2	1	6	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00
1	2	2	6	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00
1	2	1	6	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00
1	1	2	3	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00
1	2	2	6	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00
1	1	1	2	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00
3	1	2	3	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00
3	2	3	2	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00
2	2	2	6	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00
1	1	2	2	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00

1	1	2	3	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00
1	1	1	6	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00
1	2	2	6	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00
1	1	2	2	1	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00
1	2	1	3	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00
3	1	2	2	2	4.50	4.50	5.00	4.50	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00
1	2	1	3	2	4.50	4.50	5.00	5.00	4.50	4.50	5.00	5.00	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.83	5.00
1	1	2	6	1	4.50	4.50	5.00	5.00	4.50	4.50	5.00	5.00	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.83	5.00
3	1	1	3	1	4.50	4.50	5.00	5.00	4.50	4.50	5.00	5.00	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.83	5.00
1	1	2	3	1	4.50	4.50	5.00	5.00	4.50	4.50	5.00	5.00	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.83	5.00
2	1	2	2	2	4.50	4.50	5.00	5.00	4.50	4.50	5.00	5.00	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.83	5.00
1	1	2	3	1	4.50	4.50	5.00	5.00	4.50	4.50	5.00	5.00	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.83	5.00
1	2	3	6	2	4.50	4.50	5.00	5.00	4.50	4.50	5.00	5.00	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.83	5.00
1	2	3	6	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	2	2	6	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	1	1	3	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	1	2	2	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	2	3	7	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
2	2	1	3	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	1	2	7	1	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	1	2	2	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	2	1	7	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	2	2	2	1	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	1	3	3	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	1	2	7	1	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
2	2	2	8	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	1	2	3	1	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	1	1	2	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
2	2	2	8	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	1	2	3	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00

3	2	1	2	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
2	2	2	8	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	1	1	3	1	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	1	2	8	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	1	2	8	1	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	1	1	3	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
2	2	3	2	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
1	1	2	3	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	1	1	3	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	2	1	2	2	4.50	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.67	5.00	5.00
3	2	2	8	1	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
2	1	1	3	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
1	1	2	8	1	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
1	2	1	8	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
3	1	2	3	1	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
3	1	3	2	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
2	1	2	3	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
1	2	2	2	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
1	2	2	8	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
3	1	1	2	1	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
3	1	2	1	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
2	1	1	1	1	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
1	1	2	1	1	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
1	1	1	1	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
1	2	2	1	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
3	1	3	3	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
3	2	2	8	2	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
2	2	1	8	1	5.00	4.50	5.00	5.00	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	4.83	5.00	5.00
1	1	2	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00
1	1	1	2	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00

1	2	2	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00
1	1	1	2	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00
1	1	2	8	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00
1	2	2	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00
3	1	3	2	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00
3	2	2	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00
1	1	2	8	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00
2	1	2	1	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.67	5.00	5.00	5.00
1	1	2	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	2	1	8	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	1	2	8	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	2	1	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	2	2	2	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	1	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	1	2	2	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	2	3	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	2	3	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	1	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	2	8	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	1	8	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	2	8	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	1	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	2	2	2	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	1	1	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	2	2	2	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	2	3	8	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	2	2	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	2	1	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	2	2	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	2	8	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

3	1	2	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	2	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	2	1	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	1	2	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
1	2	1	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	1	2	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	2	3	1	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	1	2	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	1	3	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	2	2	8	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	2	8	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	1	2	1	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	1	8	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	2	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	1	2	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	2	2	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	2	3	2	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	2	8	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	2	2	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
3	2	2	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	2	1	1	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	1	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	2	8	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	2	1	8	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	1	3	2	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
2	1	2	4	2	3.50	3.50	3.50	4.00	3.50	2.50	3.50	4.00	3.00	3.50	3.50	3.33	3.50	3.44	3.71	3.77	3.91
2	2	1	2	2	3.50	3.50	3.50	4.00	3.50	2.50	3.50	4.00	3.00	3.50	3.50	3.33	3.50	3.44	3.76	3.59	3.94
2	2	3	4	1	3.50	3.50	3.50	4.00	3.50	2.50	3.50	4.00	3.00	3.50	3.50	3.33	3.50	3.56	3.71	3.73	3.84
2	1	2	2	2	3.50	3.50	3.50	4.00	3.50	2.50	3.50	4.00	3.50	3.50	3.50	3.33	3.67	3.44	3.95	3.77	3.75
2	2	3	4	1	4.00	3.50	3.50	4.00	4.00	2.50	3.50	4.00	3.50	3.50	3.67	3.50	3.67	3.56	3.71	3.73	3.84

3	1	1	8	1	4.00	3.50	3.50	4.00	4.00	2.50	4.00	4.00	3.50	3.67	3.67	3.50	3.83	3.70	3.76	3.59	3.81
3	2	2	2	2	4.00	3.50	3.50	4.00	4.00	2.50	4.00	4.00	3.50	3.83	3.67	3.50	3.83	3.67	3.81	3.73	3.91
2	1	1	1	1	4.00	3.50	4.00	4.00	4.00	2.50	4.50	4.00	3.50	3.83	3.83	3.50	4.00	3.67	3.86	3.68	3.88
2	1	2	1	2	4.00	3.50	4.00	4.00	4.50	2.50	4.50	4.00	3.50	3.83	3.83	3.67	4.00	3.56	3.81	3.73	3.84
2	1	1	1	2	4.00	3.50	4.00	4.00	4.50	3.00	4.50	4.00	3.50	3.83	3.83	3.83	4.00	3.78	3.95	3.77	3.84
2	2	2	1	2	4.00	3.50	4.00	4.00	4.50	3.00	4.50	4.00	3.50	3.83	3.83	3.83	4.00	3.70	3.76	3.77	3.94
2	1	2	1	2	4.00	4.00	4.00	4.00	4.50	3.00	4.50	4.00	3.50	3.83	4.00	3.83	4.00	3.56	3.81	3.73	3.84
2	2	3	1	2	4.00	4.00	4.00	4.00	4.50	3.00	4.50	4.00	4.00	4.00	4.00	3.83	4.17	3.59	3.76	3.77	3.94
3	1	2	1	1	4.00	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.00	4.00	4.00	4.17	3.96	3.95	3.77	3.84
3	1	2	1	2	4.00	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.00	4.00	4.00	4.17	3.56	3.76	3.77	3.81
2	1	2	1	1	4.00	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.00	4.00	4.00	4.17	3.67	3.71	3.77	3.84
4	1	2	1	1	4.00	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.00	4.00	4.00	4.17	3.96	3.95	3.77	3.84
2	1	1	1	2	4.00	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.17	4.00	4.00	4.17	3.70	3.71	3.77	3.84
2	2	2	1	3	4.00	4.00	4.00	4.00	4.50	3.50	4.50	4.00	4.00	4.17	4.00	4.00	4.17	3.52	3.71	3.77	3.84
2	1	1	1	3	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17	3.63	3.71	3.77	3.81
2	2	2	1	2	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17	3.93	3.71	3.77	3.84
2	2	1	1	1	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17	3.74	3.71	3.77	3.97
2	1	1	1	3	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17	3.63	3.71	3.77	3.81
2	1	2	1	2	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17	3.56	3.71	3.77	3.88
4	1	2	1	1	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17	3.41	3.71	3.77	3.91
3	2	1	1	3	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17	2.00	3.86	3.59	3.88
2	1	2	1	1	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.00	4.00	4.17	4.00	4.17	4.17	3.59	3.76	3.73	3.94
2	1	2	4	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.48	3.86	3.77	3.94
3	2	1	1	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.81	3.86	3.59	3.88
2	1	3	8	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.85	3.86	3.59	3.84
2	2	2	8	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.52	3.81	3.73	3.91
4	2	1	4	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	5.00	3.86	3.68	3.84
3	1	2	1	1	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.52	3.81	3.73	3.84
2	1	1	4	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.37	3.86	3.77	3.84
2	2	2	9	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.22	3.76	3.77	3.78

2	1	1	9	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.67	3.76	3.77	3.91
2	2	2	4	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	4.00	3.86	3.77	3.97
2	2	3	2	1	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.78	3.76	3.77	3.94
2	1	2	4	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.48	3.71	3.77	3.97
2	2	2	4	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	4.00	3.86	3.77	3.97
2	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	4.00	3.71	3.77	3.91
2	2	2	9	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.85	3.50	4.00	3.00
4	1	1	2	1	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.59	3.50	4.00	3.00
2	1	2	2	1	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	4.00	3.50	4.00	3.00
3	1	2	1	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	4.04	3.50	4.00	3.50
4	1	1	2	1	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.59	3.50	4.00	3.50
2	1	1	1	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.93	4.00	4.00	3.50
2	2	2	1	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.78	4.00	4.00	3.50
3	1	2	1	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	4.04	4.50	4.00	3.50
2	2	1	1	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.33	4.50	4.00	3.50
2	1	2	4	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.70	4.50	4.00	3.50
3	1	3	9	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.52	4.50	4.00	3.50
3	2	2	9	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.44	4.50	4.00	3.50
3	1	3	9	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.52	4.50	4.00	4.00
3	1	3	9	3	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.52	4.50	4.00	4.00
2	2	2	4	2	4.00	4.00	4.00	4.00	4.50	4.50	4.50	4.00	4.00	4.17	4.00	4.33	4.17	3.67	4.50	4.00	4.00
4	2	2	4	2	4.00	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33	3.81	4.50	4.00	4.00
2	2	1	2	1	4.00	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33	3.67	4.50	4.00	4.00
4	2	2	4	2	4.00	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33	3.81	4.50	4.00	4.00
2	2	1	2	1	4.00	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33	3.67	4.50	4.00	4.00
3	2	1	2	1	4.00	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33	3.78	4.50	4.00	4.00
2	2	2	9	3	4.00	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33	3.70	4.50	4.00	4.00
2	2	1	2	1	4.00	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33	3.67	4.50	4.00	4.00
2	2	1	2	1	4.00	4.00	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.17	4.00	4.50	4.33	4.19	4.50	4.00	4.00
2	1	2	4	2	4.00	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33	3.81	4.50	4.00	4.00

2	1	3	9	3	4.00	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33	3.70	4.50	4.00	4.00
2	2	3	9	3	4.00	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33	4.07	4.50	4.00	4.00
2	1	2	4	2	4.00	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33	3.81	4.50	4.00	4.00
2	1	2	4	2	4.00	4.50	4.00	4.50	4.50	4.50	4.50	4.50	4.00	4.33	4.17	4.50	4.33	3.81	4.50	4.00	4.00
2	2	2	4	2	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.67	4.50	4.00	4.00
2	2	1	2	2	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.00	4.50	4.00	4.00
2	2	2	4	3	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	2.00	4.50	4.00	4.00
2	2	2	4	2	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.67	4.50	4.00	4.00
2	2	1	2	3	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.78	4.50	4.00	4.00
2	2	2	9	2	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.67	4.50	4.00	4.00
2	2	2	4	3	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.93	4.50	4.00	4.00
2	2	1	2	1	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.59	4.50	4.00	4.00
4	2	2	1	2	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.70	4.50	4.00	4.00
3	2	3	1	1	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.67	4.50	4.00	4.00
2	2	1	2	1	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.59	4.50	4.00	4.00
2	2	2	4	3	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.85	4.50	4.00	4.00
2	2	2	4	1	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.37	4.50	4.00	4.00
2	2	1	2	1	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.59	4.50	4.00	4.00
2	1	2	9	2	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.33	4.17	4.67	4.33	3.59	4.50	4.00	4.00
2	1	1	4	3	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.50	4.17	4.67	4.33	3.52	4.50	4.00	4.00
2	2	2	4	1	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.50	4.17	4.67	4.33	3.37	4.50	4.00	4.00
4	2	2	2	3	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.50	4.17	4.67	4.33	3.56	4.50	4.00	4.00
2	1	2	9	1	4.00	4.50	4.00	4.50	4.50	5.00	4.50	4.50	4.00	4.50	4.17	4.67	4.33	3.93	4.50	4.00	4.00
3	2	1	5	2	4.50	4.50	4.00	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.33	4.67	4.50	3.33	4.50	4.00	4.00
2	2	2	5	1	4.50	4.50	4.00	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.33	4.67	4.50	3.37	4.50	4.00	4.00
4	2	2	2	3	4.50	4.50	4.00	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.33	4.67	4.50	3.56	4.50	4.00	4.00
2	1	3	9	2	4.50	4.50	4.00	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.33	4.67	4.50	3.67	4.50	4.00	4.00
2	2	2	5	1	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.50	4.67	4.50	3.37	4.50	4.00	4.00
2	1	2	9	1	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.50	4.67	4.50	3.67	4.50	4.00	4.00
2	1	1	5	3	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.50	4.67	4.50	3.89	4.50	4.00	4.00

2	2	2	2	1	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.00	4.50	4.50	4.67	4.50	4.00	4.50	4.00	4.00
2	1	2	9	1	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.50	4.67	4.67	3.93	4.50	4.00	4.00
2	1	2	9	1	4.50	4.50	4.50	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.50	4.67	4.67	3.67	4.50	4.50	4.00
2	2	1	5	1	4.50	4.50	5.00	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.67	4.67	4.67	3.59	4.50	4.50	4.00
2	2	2	2	1	4.50	4.50	5.00	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.67	4.67	4.67	3.59	4.50	4.50	4.00
2	2	1	9	2	4.50	4.50	5.00	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.67	4.67	4.67	3.44	4.50	4.50	4.00
2	2	2	2	1	4.50	4.50	5.00	4.50	4.50	5.00	4.50	5.00	4.50	4.50	4.67	4.67	4.67	3.74	4.50	4.50	4.00
2	2	2	2	3	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	4.50	4.50	4.67	4.67	4.83	3.74	4.50	4.50	4.00
2	2	3	1	3	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	4.50	4.50	4.67	4.67	4.83	3.89	4.50	4.50	4.00
2	2	2	1	2	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	4.50	4.50	4.67	4.67	4.83	3.52	4.50	4.50	4.00
2	2	2	5	1	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00	3.70	4.50	4.50	4.00
2	2	2	9	2	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00	3.15	4.50	4.50	4.00
2	2	2	5	3	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00	3.67	4.50	4.50	4.00
2	1	1	9	1	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00	5.00	4.50	4.50	4.00
2	1	2	5	1	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00	3.30	4.50	4.50	4.00
2	2	1	2	2	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00	3.26	4.50	4.50	4.00
2	1	2	9	1	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00	3.93	4.50	4.50	4.00
2	2	2	5	3	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00	3.67	4.50	4.50	4.00
2	2	1	2	3	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.50	4.67	4.67	5.00	3.67	4.50	4.50	4.00
2	2	2	5	2	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00	3.67	4.50	4.50	4.00
2	2	2	2	2	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00	4.00	4.50	4.50	4.00
2	2	2	2	1	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00	3.67	4.50	4.50	4.00
2	2	2	5	2	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00	3.67	4.50	4.50	4.00
2	1	2	9	2	4.50	4.50	5.00	4.50	4.50	5.00	5.00	5.00	5.00	4.67	4.67	4.67	5.00	3.93	4.50	4.50	4.00

Appendix VI: List of the Hospitals Involved in the Study

1. Mulago National Referral Hospital
2. Kawempe National Referral Hospital
3. Kiruddu National Referral Hospital
4. Butabika National Referral Hospital
5. China-Uganda Friendship Hospital – Naguru

Appendix VII: Map of Kampala, Showing National Referral Hospitals

