EFFECTIVENESS OF COGNITIVE RESTRUCTURING IN MITIGATING PSYCHOLOGICAL DISTRESS AND IRRATIONAL BELIEFS AMONG SECONDARY SCHOOL TEACHERS IN KIAMBU COUNTY, KENYA

GRACE WANJIRU GAKINYA

C82/CTY/37158/2016

A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF LAW, ARTS AND SOCIAL SCIENCES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN COUNSELING PSYCHOLOGY OF KENYATTA UNIVERSITY

JUNE 2025

DECLARATION

This research thesis is my original work and has not been presented for a degree at any other university.

Signature…….…… Date:……..

Grace Wanjiru Gakinya

C82/CTY/37158/2016

Supervisors

This thesis has been submitted with our approval as university supervisors

Signature…….…….. Date:……..

Dr. Christine Wasanga

Senior Lecturer

Department of Psychology

Kenyatta University

Signature…….…….. Date:……..

Dr. Robert C. Kipnusu

Department of Psychology

Kenyatta University

DEDICATION

I dedicate this work to my dad, Samuel Gakinya Kariuki, for his support and encouragement throughout this journey. I also dedicate this to my husband, Patrick Maina, for his love and support. Lastly, I dedicate this work to my beautiful children, Victor U. Maina and Angel N. Maina, for believing in me and for their unwavering encouragement.

ACKNOWLEDGEMENTS

I acknowledge with gratitude the contribution of my university supervisors, Dr. Christine Wasanga and Dr. Robert Kipnusu, for their constant guidance, encouragement, and insights, which were key in completing this work.

I recognize and appreciate my PhD classmates at Kenyatta University: Dr. Fabio, Dr. Peter, Dr. Anthony, Esther, Japheth, Anne, Kenneth, Susan, Robert, Faith and Lucy for their inspiration, guidance and encouragement.

I thank my colleagues at Thika Technical Training Institute, the Department of Liberal Studies, C. Kinuthia, D. Wahungu, and Dr. N. Ondicho for their inspiration, guidance, and encouragement.

I sincerely thank my husband Patrick Maina for his love, moral and financial support. Finally, I dedicate this work to my lovely children Victor U. Maina and Angel N. Maina for creating a conducive environment for my working, believing in me and for their continuous encouragement.

To my dear Parents Mr and Mrs Samuel Gakinya Kariuki as well as my siblings for your prayers, Inspiration and motivation, I will forever be indebted.

May God Bless You All.

TABLE OF CONTENTS

DECLARATION ..... **ii**
DEDICATION ..... **iii**
ACKNOWLEDGEMENTS ..... **iv**
TABLE OF CONTENTS ..... **v**
LIST OF TABLES ..... **viii**
LIST OF FIGURES ..... **ix**
OPERATIONAL DEFINITION OF TERMS ..... **x**
ABBREVIATIONS AND ACRONYMS ..... **xii**
ABSTRACT ..... **xiv**
CHAPTER ONE **1**
INTRODUCTION **1**
1.1 Background of the Study 1
1.2 Statement of the Problem 14
1.3 Purpose of the Study 15
1.4 Objectives of the Study 15
1.5 Research Questions 16
1.6 Hypotheses 16
1.7 Justification and Significance of the Study 16
1.7.1 Justification 16
1.7.2 Significance 17
1.8 Scope and Limitations of the Study 19
1.8.1 Scope 19
1.8.2 Limitations 19
1.9 Assumptions of the Study 20
CHAPTER TWO **21**
REVIEW OF RELATED LITERATURE **21**
2.1 Introduction 21
2.2 Theoretical Framework 21
2.3 Review of Related Studies 27
2.3.1 Levels of Psychological Distress among Teachers 27

2.3.2 Types of Irrational Beliefs Held by Teachers 41
2.3.3 Relationship between Levels of Irrational beliefs and Psychological Distress 52
2.3.4 Effectiveness of Cognitive Restructuring in Reducing Irrational Beliefs 62
2.3.5 Effectiveness of Cognitive Restructuring in Reducing Psychological Distress 68
2.4 Summary of Research Gaps 80
CHAPTER THREE 83
RESEARCH METHODOLOGY 83
3.1 Introduction 83
3.2 Research Design 83
3.2.1 Study Variables 84
3.3 Site of the Study 84
3.4 Target Population 86
3.5 Sampling Techniques and Sample Size 88
3.6 Research Instruments 91
3.6.1 Depression, Anxiety, and Stress Scale - 21 Items (DASS-21) 91
3.6.2 Irrational Performance Beliefs Inventory (iPBI) 94
3.7 Pilot Study 96
3.7.1 Validity of Research Instruments 96
3.7.2 Reliability of Research Instruments 97
3.8 Data Collection Procedures 98
3.9 Data Analysis and Presentation 102
3.10 Data Management and Ethical Considerations 103
CHAPTER FOUR 106
DATA ANALYSIS, PRESENTATION AND DISCUSSION OF THE FINDINGS 106
4.1 Introduction 106
4.2 Response Rate 106
4.3 Demographic Characteristics of the Respondents 107
4.4. Findings of the Study 108
4.4.1 Levels of Psychological Distress Among Secondary School Teachers 108
4.4.2 Types of Irrational Beliefs Held by Secondary School Teachers 115
4.4.3 Relationship between Irrational Beliefs and Psychological Distress 122

4.4.4 Effectiveness of Cognitive Restructuring on Irrational Beliefs 125
4.4.5 Effectiveness of Cognitive Restructuring on Psychological Distress 130
CHAPTER FIVE 136
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 136
5.1 Introduction 136
5.2 Summary of Findings 136
5.2.1 Levels of Psychological Distress among Secondary School Teachers 136
5.2.2 Types of Irrational Beliefs Held by Secondary School Teachers 136
5.2.3 Relationship between Levels of Irrational Beliefs and Psychological Distress 137
5.2.4 Effectiveness of Cognitive Restructuring on Irrational Beliefs 138
5.2.5 Effectiveness of Cognitive Restructuring on Psychological Distress 138
5.3 Conclusion 138
5.4 Recommendations of the Study 139
5.5 Suggestions for Further Research 140
REFERENCES 142
APPENDICES 157
Appendix 1: Informed Consent 157
Appendix 2: Demographic Characteristics 158
Appendix 3: The Depression, Anxiety and Stress Scale (DASS 21) 159
Appendix 4. Irrational Beliefs Inventory Scale 161
Appendix 5: List of Public Secondary Schools in Thika Town Constituency 164
Appendix 6: Attendance Lists 165
Appendix 7: Research Authorization from Kenyatta University Graduate School 170
Appendix 8: Research Licence from NACOSTI 171
Appendix 9: Research Authorization from County Commissioner Kiambu County 172
Appendix 10: Research Authorization from County Director of Education Kiambu County 173

LIST OF TABLES

Table 3.1 The 2-group Design 83
Table 3.2 Study Population 87
Table 3.3 Sample Size 91
Table 3.4 DASS Cut-off scores 93
Table 3.5 Intervention Program 101
Table 3.6 Data analysis Table 103
Table 4.1 Response Rate for Both Groups after Intervention 106
Table 4.2 Demographic Characteristics of the Respondents 107
Table 4.3 Levels of Psychological Distress among Teachers in Kiambu County 108
Table 4.4 Cross Tabulation of Depression with Demographic Characteristics 110
Table 4.5 Cross Tabulation of Anxiety with Demographic Characteristics 112
Table 4.6 Cross Tabulation of Stress with Demographic Characteristics 113
Table 4.7 Types of Irrational beliefs for Teachers in Kiambu County 115
Table 4.8 Cross Tabulation of Demandingness with Demographic Characteristics 118
Table 4.9 Cross Tabulation of Low Frustration Tolerance with Demographic Characteristics . 119
Table 4.10 Cross Tabulation of Awfulizing with Demographic Characteristics 120
Table 4.11 Cross Tabulation of Depreciation with Demographic Characteristics 121
Table 4.12 Correlation between Irrational Beliefs and Psychological Distress 123
Table 4.13 Descriptive Statistics for Control Pre and Posttest for Irrational Beliefs 125
Table 4.14 t-test Results for Control Group 127
Table 4.15 Descriptive Statistics for Treatment Pre and Posttest for Irrational Beliefs 127
Table 4.16 t-test Results for Treatment Group 128
Table 4.17 Descriptive Statistics for Control Pre and Posttest for Psychological Distress 130
Table 4.18 Effect of Cognitive Restructuring on Psychological Distress 131
Table 4.19 Descriptive Statistics for Treatment Pre and Posttest for Psychological Distress 132
Table 4.20 t-test Results for Treatment Group 133

LIST OF FIGURES

Figure 2.1 Conceptual Framework 82

Figure 3.1 Kiambu County 86

OPERATIONAL DEFINITION OF TERMS

Anxiety: Refers to a feeling of worry, nervousness, or unease, often about an imminent event or something with an uncertain outcome. Symptoms of anxiety disorders include excessive worry, restlessness, fatigue, difficulty concentrating, irritability, and physical symptoms like a racing heart, shortness of breath, or sweating.

Cognitive and behavioral therapy: A type of psychotherapeutic treatment that helps clients understand the thoughts and feelings that influence behaviors and learn new ways of perceiving and thinking about events.

Cognitive restructuring: A technique used to change the way people think by identifying ineffective patterns in thinking and changing them to be more effective. It helps people to identify, challenge and alter stress-inducing thought patterns and beliefs.

Depression: A mental health disorder characterized by persistent feelings of sadness, hopelessness, and a lack of interest or pleasure in daily activities.

Irrational Beliefs: Deeply held, rigid, and illogical thought patterns or assumptions that are often inconsistent with reality, which are typically characterized by absolute, exaggerated, and unrealistic expectations about oneself, others, or the world. These include demandingness, Low Frustration Tolerance, Awfulizing and depreciation.

Psychological distress: A state of emotional suffering often characterized by symptoms of depression, anxiety, and stress, which arises as a response to adverse events, situations, or experiences.

Stress: Refers to body's natural response to a challenge or demand. Symptoms include irritability, fatigue, difficulty sleeping, and physical symptoms such as headaches or muscle tension.

ABBREVIATIONS AND ACRONYMS

ACT	Acceptance and Commitment Therapy
AIDS	Acquired Immunodeficiency Syndrome
ANOVA	Analysis of Variance
ART	Antiretroviral Therapy
CBT	Cognitive Behavioral Theory
CFI	Comparative Fit Index
CR	Cognitive Restructuring
DASS-21	Depression, Anxiety and Stress Scale - 21 Items
FRS	Fear of Relapse Scale
GAD	Generalized Anxiety Disorder
GBV	Gender-Based Violence
GHQ-12	General Health Questionnaire-12
GoK	Government of Kenya
HIV	Human Immunodeficiency Virus
IBIS	Irrational Beliefs Inventory Scale
IMT	Intensive Mindfulness Training
iPBI	Irrational performance beliefs inventory
KNBS	Kenya National Bureau of Statistics

LFT	Low Frustration Tolerance
MANCOVA	Multivariate Analysis of Covariance
MOE	Ministry of Education
NACOSTI	National Commission for Science, Technology, and Innovation
OECD	Organization for Economic Co-operation and Development
PHQ	Patient Health Questionnaire
PSC	Psychological Screening Checklist
PTS	Post-Traumatic Stress
PTSD	Post-Traumatic Stress Disorder
REBT	Rational Emotive Behavior Therapy
SPSS	Statistical Package for the Social Sciences
TBI	Traumatic Brain Injury
TF	Transference-Focused
TSC	Teachers Service Commission
UK	United Kingdom
WHO	World Health Organization
WLC	Waitlist Control
WSMS	Work Stress Management Techniques

ABSTRACT

This study sought to establish the effectiveness of cognitive restructuring on psychological distress among secondary school teachers in Kiambu County, Kenya. The study used the Cognitive Behavioral Therapy approach. The standard 2 group research design consisting of experimental group and control group was used in the study. A total of 638 teachers in Kiambu county formed the target population. Fischer's formula was used to get a sample of 120 teachers for the study. The study employed a multistage sampling technique, combining purposive selection of Thika Town Sub-County, stratified random sampling of schools, and convenience sampling of teachers. Teachers from the first set of 60 were assigned to the control group (C1), while teachers from the second set of 60 on the sampling list were assigned to the intervention group (group 1 or E1). The pretest, intervention, and a posttest were given to experimental group (E1). Control group (C1) received the pretest and posttest only. The study used the Depression, Anxiety and Stress Scale (DASS 21) to measure psychological distress among teachers. The Irrational Performance Belief Inventory consisting of 28 questions was also used. A pilot study was carried out on 12 teachers in the neighbouring Murang'a County. The test-retest technique of reliability testing was used to assess the reliability of the research instrument. The results showed that the levels of psychological distress among secondary school teachers was moderate. Specifically, 50.5% of participants were categorized as moderate for depression, 61.7% for anxiety, and 25.2% for stress. Additionally, irrational beliefs were found to be prevalent among secondary school teachers in Kiambu County. Specifically, 60.7% of participants were classified as having moderate levels of Demandingness, 60.7% exhibited moderate levels of Low Frustration Tolerance (LFT), 74.8% were categorized as moderate in Awfulizing, and 68.2% reported moderate levels of Depreciation. The study also established a moderate positive relationship between levels of irrational beliefs and psychological distress among secondary school teachers. Cognitive restructuring also had a significant influence on irrational beliefs among secondary school teachers ($p = 0.000$, $p=0.000$; $p=0.000$; $p=0.000$ for demandingness, LFT, awfulizing and depreciation respectively). On the other hand, cognitive restructuring had a significant effect on psychological distress among secondary school teachers ($p = 0.000$, $p = 0.000$ and $p = 0.000$ for depression, anxiety and stress respectively). The study recommends that schools should consider implementing cognitive restructuring programs for teachers. There should be regular monitoring and evaluation of teachers' mental health and well-being within school settings. Additionally, educational policymakers should consider incorporating mental health support mechanisms into existing policies and guidelines for secondary school teachers.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Many people experience psychological distress at some point in their lives, and this negative state can have knock-on effects on other areas of health (Sanderson, 2020). Characterised by depressive symptoms such as a lack of motivation, hope, and sadness, psychological distress also includes anxious symptoms like irritability and apprehension (Moon, 2020). Research indicates that one in five individuals will encounter high levels of emotional distress at some stage in their lives (Lauer, 2017).

Distress is a negative emotional response arising from external or internal stressors that overwhelm an individual's ability to cope. It serves as the negative counterpart to eustress, or positive stress, as outlined by Branson (2019), who emphasized its detrimental impact on well-being. Distress manifests in various forms, physical, emotional, or psychological depending on its intensity and duration. When prolonged, it can lead to significant mental health challenges, including symptoms of depression, anxiety, and emotional suffering, collectively referred to as psychological distress (Rohleder, 2019). Psychological distress is characterized by emotional strain resulting from exposure to adverse life conditions or chronic stressors.

Workplace-related stressors, such as job insecurity, excessive workloads, and interpersonal conflicts, are common sources of psychological distress that significantly affect productivity and quality of life (Javanmardnejad et al., 2021). These challenges are particularly prevalent in high-demand professions, where individuals face constant pressure to meet expectations in environments that may lack adequate support or resources. The physical effects of distress can

include fatigue, headaches, and cardiovascular issues, while emotional and psychological symptoms may manifest as irritability, restlessness, or difficulty concentrating (Rohleder, 2019). In professional settings, such symptoms often lead to decreased motivation and strained interpersonal relationships, further exacerbating the individual's mental health challenges.

Irrational beliefs are rigid, unrealistic, and illogical convictions that negatively impact psychological well-being (Dryden, 2014). Central to Rational Emotive Behavior Therapy (REBT), these beliefs are linked to emotional difficulties, particularly in high-stress professions like teaching (Ellis, 1962). Teachers, who often work in demanding environments, are especially susceptible to irrational beliefs that worsen their psychological strain (Bernard, 2006). One prominent irrational belief is catastrophizing, where individuals exaggerate the severity of challenges. For instance, a teacher may perceive minor classroom disruptions as catastrophic failures, leading to increased anxiety (Turner, 2016).

Similarly, overgeneralization, where broad negative conclusions are drawn from limited events, can damage teachers' self-confidence. A single instance of criticism might lead a teacher to believe they are inherently incompetent (Chrysos, 2017). Perfectionism is another common irrational belief, compelling teachers to set unattainably high standards for themselves, resulting in chronic dissatisfaction (Flett & Hewitt, 2014). Additionally, low frustration tolerance, the belief that routine stressors are unbearable, can amplify emotional reactions to everyday challenges, such as student misbehavior or administrative demands (Miller et al., 2019). Lastly, depreciation, which involves undervaluing oneself or others, erodes teachers' confidence and damages workplace relationships, contributing to a toxic environment (Hyland et al., 2014).

Cognitive restructuring is a psychological technique used to identify and challenge distorted or maladaptive thought patterns, replacing them with healthier and more constructive ones (Boham,

2020). Originating from cognitive behavioral therapy (CBT), it serves as a core element in addressing emotional and behavioral difficulties. Developed by Beck (1976) and Ellis (1994) through frameworks like Cognitive Behavior Therapy (CBT) and Rational Emotive Behavior Therapy (REBT), cognitive restructuring focuses on reframing irrational beliefs and negative thought processes. The process involves several steps: recognizing harmful thoughts, assessing their validity, and replacing them with realistic alternatives (Stallard, 2019). For example, a teacher overwhelmed by workload might think, “I’m a failure because I can’t manage everything.” Cognitive restructuring would help reframe this thought to, “I’m doing my best under challenging circumstances, and it is okay to seek help.”

Research highlights the effectiveness of cognitive restructuring in various settings, including managing workplace stress. It empowers individuals to challenge cognitive distortions such as catastrophizing, overgeneralization, and personalization, which often worsen stress and anxiety (Friedman, 2023). For educators, this technique is particularly effective in alleviating work-related psychological distress by fostering emotional resilience and positive thinking. Programs that incorporate cognitive restructuring have demonstrated significant reductions in stress, enhanced coping mechanisms, and improved mental health across diverse populations, making it a cornerstone of psychological interventions globally (Driscoll, Edwards, Becker, Kaptchuk & Kerns, 2021).

Cognitive restructuring also addresses issues on irrational beliefs by identifying and challenging irrational thoughts and replacing them with more rational and adaptive ones (Crum, 2021). By engaging in cognitive restructuring techniques, teachers can learn to recognize and challenge their irrational beliefs, thereby reducing their negative impact on mental health and job performance. Through this process, teachers can develop more realistic and constructive beliefs

about themselves and their abilities, leading to improved well-being and job satisfaction (Gkontelos, Vaiopoulou & Stamovlasis, 2021).

Workplace stress is a common issue in developed nations like Australia, the United States, and the United Kingdom, with surveys indicating that a significant proportion of employees experience considerable stress in their work environments (Chan, 2019). This stress is not just a temporary discomfort; it is associated with serious health complications such as metabolic syndrome, heart disease in men, and ischemic stroke in the elderly, which can be fatal (Attel, 2017). These findings highlight the serious implications of prolonged psychological distress on individuals' physical and mental well-being. Among various professions, teaching is noted as one of the most stressful, as educators often deal with emotional strain, organisational challenges, and demanding workloads.

Teaching, particularly at the secondary school level, is filled with challenges that increase stress. Research indicates that approximately one-quarter of secondary school teachers globally perceive their roles as "very or extremely stressful" (Kyriacou, 2001; Leroux & Theoret, 2014). This sentiment highlights the widespread nature of workplace stress among educators. High school teachers face the dual pressures of meeting academic standards and addressing the social and emotional needs of adolescents, which makes their roles exceptionally demanding (Ipek, Akçay, Atay, Berber, Karalik, & Yilmaz, 2018).

In the United States, the problem is particularly acute, with Hickmon-Rosa and Reinke (2018) reporting that 93% of American educators work in high-stress classrooms. Similarly, Canadian research by Duxbury and Higgens (2013) highlights that teachers in Alberta exhibit lower levels of organizational engagement, diminished job satisfaction, and a heightened likelihood of feeling melancholy. These findings reflect a troubling trend of emotional disengagement and

psychological strain within the teaching profession, which can have far-reaching implications for both educators and their students.

The situation in the United Kingdom mirrors global trends, with many teachers experiencing significant stress. A staggering 98% of UK educators reported feeling increasingly stressed, while 75% acknowledged that teaching adversely affected their physical and mental health (Perryman & Calvert, 2016). This high prevalence of stress and its impact on well-being have been identified as key factors driving teachers to leave the profession. The World Organization for Economic Co-operation and Development (OECD, 2020) emphasises the severity of the issue, identifying teacher well-being as a critical concern. According to Schleicher (2018), the phenomenon of teachers experiencing psychological distress due to their professional responsibilities is alarming and warrants immediate attention.

High levels of workplace stress among teachers can negatively affect their motivation, self-efficacy, and professional commitment. Schleicher (2018) argues that teachers' mental, emotional, and physical well-being is intrinsically linked to their ability to perform effectively in the classroom. When teachers are overburdened and stressed, their sense of professional competence diminishes, which, in turn, impacts their teaching quality. The implications of this cycle extend beyond individual educators, affecting students' learning outcomes and overall school performance.

The teaching profession in India also faces significant challenges related to stress and psychological distress. According to Singh and Katoch (2017), 35.5% of Indian teachers reported high levels of workplace distress, while 33.5% and 31.0% reported moderate and low levels, respectively. These figures reveal that nearly one-third of Indian educators operate in the "high distress zone," with 30.9% experiencing extremely high levels of psychological discomfort,

55.5% reporting moderate levels, and only 14.1% indicating extremely low levels. These statistics highlight the urgent need for targeted interventions to address mental health issues among Indian teachers. Chronic stress not only hampers teachers' ability to engage effectively with their students but also diminishes their job satisfaction and overall quality of life. The growing recognition of these challenges underscores the importance of developing strategies to promote mental health and well-being among educators in India.

In Africa, systemic issues such as inadequate resources, large class sizes, and poor working conditions exacerbate the mental health challenges faced by teachers. In South Africa, for instance, initiatives aimed at improving teachers' emotional well-being in underperforming secondary schools frequently encounter significant obstacles. Mbulaheni, Kutame, and Mpofu (2017) found that the conditions in many schools are not conducive to promoting teachers' mental health, which undermines the effectiveness of such programs. Consequently, many educators become disillusioned with their roles, leading to diminished classroom leadership and overall school performance.

Nigerian teachers face some of the highest rates of distress, depression, and anxiety on the continent. Asa and Lasebikan (2016) reported that 72.2% of Nigerian educators experience significant distress, while 29.3% and 29.5% suffer from depression and generalized anxiety disorder (GAD), respectively. These statistics highlight the pressing need for schools to incorporate mental health programs for teachers. Without such interventions, the psychological and emotional toll on educators is likely to persist, with adverse effects on both their professional performance and personal lives.

Teachers in Kenyan secondary schools report high levels of psychological distress, with numerous studies highlighting the underlying causes and implications of these challenges.

According to Baraza, Simatwa, and Gogo (2016), teachers' emotional discomfort is linked to various factors, including heavy workloads, school culture, interpersonal relationships, large class sizes, family dynamics, student discipline issues, and the tasks of administering and marking examinations. These factors, both individually and collectively, contribute to increased stress levels that adversely affect educators' well-being and professional effectiveness. The issue of teacher distress is not only a personal concern but also impacts broader educational outcomes, given that teachers' mental health directly influences their performance and the quality of instruction delivered in classrooms.

Among the most significant contributors to psychological distress in Kenyan schools is the issue of workload. Teachers often find themselves overburdened with teaching responsibilities, administrative tasks, and extracurricular obligations. The increasing size of student populations in public schools, coupled with limited teaching staff, forces teachers to manage multiple large classrooms, making it difficult to provide individualized attention to students. According to Baraza et al. (2016), this not only strains teachers physically but also mentally, as they grapple with meeting the needs of diverse learners while adhering to strict deadlines. Similarly, Muiga, Ombui, and Iravo (2016) identified the heavy workload and unrealistic deadlines as significant stressors, noting that these demands often leave teachers feeling overworked and undervalued. The pressure to complete the syllabus within tight timelines, particularly in preparation for national examinations, compounds this stress. Teachers are often left with insufficient time to prepare lesson plans or provide meaningful feedback on students' work, leading to feelings of inadequacy and frustration.

The school culture and leadership style also play a critical role in shaping teachers' experiences and psychological health. In many Kenyan schools, coercive leadership and a lack of

participatory decision-making exacerbate stress among educators. As highlighted by Muiga et al. (2016), teachers frequently feel excluded from critical decisions that directly influence their work environment and professional growth. This lack of involvement fosters feelings of alienation and dissatisfaction, as teachers perceive their contributions as undervalued. Furthermore, schools often lack mechanisms to recognise and reward excellent performance, which diminishes motivation and morale. Teachers who feel unsupported by their leadership are more likely to experience stress and lower job satisfaction.

In Kiambu County, secondary school teachers face unique stressors that exacerbate their psychological distress. One major challenge is overcrowded classrooms. According to Mbiriri (2023), classrooms in Kiambu are often filled beyond capacity, creating an overwhelming teaching environment for educators. Managing large numbers of students in a single classroom is inherently stressful, as it becomes challenging to maintain discipline, monitor individual progress, and cater to the diverse needs of students. This situation is further complicated by the lack of adequate teaching resources. In many schools, teachers are forced to work with outdated materials or insufficient supplies, hindering the delivery of quality education and adding pressure on educators to improvise. The combination of overcrowded classrooms and inadequate resources creates a frustrating and demoralising work environment that significantly contributes to teacher stress.

The socio-economic disparities among students in Kiambu County present significant challenges for teachers. Mbiriri (2023) emphasises that the wide gap in economic status among students often manifests in classroom dynamics, with some learners struggling to access basic learning materials while others come from more privileged backgrounds. This disparity creates obstacles in achieving equitable learning outcomes, as teachers must navigate the complexities of

addressing the needs of students from diverse socio-economic backgrounds. Furthermore, socio-economic challenges can lead to behavioural issues, as some students may grapple with external pressures that affect their ability to focus on academics. Managing these disparities and maintaining a supportive, inclusive classroom environment adds to teachers' already substantial workload, further straining their emotional and psychological resources.

Another significant source of stress for teachers in Kiambu County is the pressure to meet the academic demands of a highly competitive educational environment. With national examinations serving as the primary measure of student and school performance, teachers are under constant scrutiny to produce top-performing students. This pressure is especially intense in Kiambu, where schools often compete for recognition and resources based on academic results. The burden of ensuring students excel in examinations, despite the challenges of overcrowded classrooms and inadequate resources, places immense psychological strain on educators. Teachers are often held accountable for students' performance, which creates a sense of responsibility that can be overwhelming, particularly when external factors beyond their control impact academic outcomes.

Furthermore, the integration of new technologies and evolving curricular requirements has added another layer of complexity to teachers' roles. According to Maina (2015), many educators in Kiambu County have struggled to adapt to technological advancements and the demands of modern curricula, often due to insufficient training and support. While technology has the potential to enhance teaching and learning, its implementation in schools has frequently been haphazard, leaving teachers ill equipped to effectively utilize these tools. The lack of proper training and guidance not only undermines the potential benefits of technology but also creates additional responsibilities for teachers, who must invest time and effort into learning new

systems while still fulfilling their regular duties. This situation contributes to feelings of frustration and inadequacy, as teachers struggle to meet the expectations placed upon them.

External pressures affect students' ability to focus on academics. Managing these disparities and maintaining a supportive, inclusive classroom environment adds to teachers' already substantial workload, further straining their emotional and psychological resources.

Another significant source of stress for teachers in Kiambu County is the pressure to meet the academic demands of a highly competitive educational environment. With national examinations serving as the primary measure of student and school performance, teachers face constant scrutiny to produce top-performing students. This pressure is particularly intense in Kiambu, where schools often compete for recognition and resources based on academic results. The burden of ensuring students excel in examinations, despite the challenges of overcrowded environments, continues to escalate.

The health and well-being of educators play a pivotal role in the success of the educational system. Teachers face significant psychological and emotional stressors that can compromise both their physical and mental health, which in turn affects their professional performance and the overall quality of education. Psychological distress among teachers is particularly concerning because it not only diminishes their instructional vigor but also has far-reaching effects on the entire educational ecosystem. As Miiro (2018) highlighted, stress within the school environment can lead to increased illness and absenteeism rates, frequent and severe accidents, heightened employee turnover, strained interpersonal relationships, and general apathy among staff. These outcomes collectively contribute to reduced employee quality and performance, threatening the stability and effectiveness of educational institutions. Therefore, addressing the psychological

challenges faced by educators and implementing effective intervention strategies are essential for sustaining and enhancing the quality of education.

To address the psychological challenges faced by employees, including educators, interventions aimed at alleviating emotional discomfort and stress are classified into three categories: primary, secondary, and tertiary interventions (Holman, Johnson, & O'Connor, 2018). This classification provides a structured approach to mitigating psychological issues in the workplace and enhancing the overall mental well-being of employees. The primary goal of intervention programs is to minimise the risk of psychological distress in the workplace before it escalates into a significant problem. Primary interventions involve proactive measures to ensure that candidates recruited for high-stress occupations are well-suited to the demands of the role and less likely to encounter psychological challenges. These measures include thorough selection and evaluation processes designed to assess an individual's mental readiness and resilience, thereby reducing the likelihood of absenteeism due to mental health issues.

Secondary intervention programs aim to provide workers with tools and resources to manage emotional discomfort effectively and enhance their overall quality of life. These programs are designed to empower employees by equipping them with strategies to cope with stress, manage emotional distress, and prevent the escalation of mental health challenges. Secondary interventions typically include a wide range of activities, such as educational workshops on stress management, interpersonal skill development, relaxation techniques, meditation, cognitive-behavioral therapy (CBT), mindfulness training, and fitness programs. These interventions help employees develop resilience and maintain mental well-being, even in high-pressure work environments. For instance, cognitive-behavioral therapy (CBT) has been widely recognized as an effective method for addressing negative thought patterns and emotional

distress. It focuses on identifying and restructuring negative cognitive processes to foster healthier emotional and behavioral responses.

Tertiary intervention programs, on the other hand, target individuals who are already experiencing significant psychological distress that impairs their ability to perform their jobs effectively. These programs focus on providing intensive support and resources to employees dealing with severe or persistent mental health challenges. Tertiary interventions often include employee assistance programs (EAPs), counselling services, and workplace accommodations to help employees regain their mental health and productivity. For example, companies like Google offer robust EAPs that provide counselling and mental health support to employees facing considerable psychological distress. These programs demonstrate the importance of workplace support systems in addressing mental health challenges and fostering a positive work environment (Holman et al., 2018).

The effectiveness of specific intervention strategies has been demonstrated in various studies. For instance, Madu (2020) explored the impact of cognitive restructuring on reducing depressive tendencies among Nigerian college students majoring in education. Cognitive restructuring is a therapeutic technique that involves identifying and challenging irrational or negative thought patterns to encourage healthier cognitive processes. Madu's findings revealed that cognitive restructuring significantly reduced depressive tendencies among the participants, highlighting its potential as a valuable intervention tool for managing psychological distress. This study underscores the importance of equipping educators and students with cognitive tools to effectively address emotional challenges.

Similarly, Pan, Ng, Young, and Caroline (2017) conducted a study on the effects of group cognitive-behavioral interventions on the mental health and post-migration development of

university students from China. The study found that participants who engaged in group cognitive-behavioral interventions experienced significant improvements in their mental health and post-migration growth. Specifically, the intervention led to increased positive emotions and post-migration development, while also reducing emotional distress, acculturative stress, and negative thoughts and feelings. These findings highlight the transformative impact of group interventions in fostering mental well-being and resilience among individuals facing significant life transitions.

The integration of cognitive restructuring as a contemporary psychotherapeutic standard presents a promising solution to address the psychological distress faced by secondary school teachers in Kenya, particularly in Kiambu County. As previously established, teachers encounter significant emotional challenges arising from workload pressures, inadequate resources, and leadership issues. These stressors frequently contribute to cognitive distortions such as self-doubt, catastrophising, and overgeneralisation regarding their performance and responsibilities. Cognitive restructuring, which has been demonstrated to effectively reduce cognitive errors (Kendall & Hedtke, 2006; O'Donohue & Fisher, 2012), offers a structured approach to challenge and replace these negative thought patterns with more adaptive and constructive perspectives.

The relatively brief duration of cognitive restructuring therapy, typically 16 sessions, makes it a viable and efficient option for teachers who may lack the time or resources for prolonged therapeutic interventions like psychoanalysis. By fostering long-lasting improvements in emotional regulation (Shurick et al., 2012), cognitive restructuring can empower teachers to cope better with stressors such as curriculum demands, classroom management challenges, and the pressure of student performance. Implementing this therapy for secondary school teachers in

Kiambu County and beyond could significantly alleviate the psychological distress experienced by educators, improve their well-being, and enhance the overall quality of education delivery.

1.2 Statement of the Problem

Secondary school teachers in Kenya face significant work-related stress due to factors such as heavy workloads, insufficient resources, and challenging interpersonal interactions with students, parents, and colleagues (Newton, 2022). These stressors often lead to psychological distress, including symptoms of anxiety, depression, and stress. Some individuals resort to alcoholism and absenteeism, which ultimately result in poor performance and failure to meet expectations. According to a UNESCO (2023) report, a substantial proportion of teachers experienced increased levels of depression, anxiety, and stress during the COVID-19 pandemic. Specifically, the study found that 45% of teachers reported moderate to severe levels of depression, 50% experienced moderate to severe anxiety, and 60% faced moderate to severe stress. Such conditions not only affect teachers' personal well-being but also hinder their professional performance and the quality of education they provide to students.

In Thika town sub-county, Kiambu County, these challenges are compounded by the unique socio-economic contexts of the region, where schools may struggle with resource limitations and teacher-to-student ratio imbalances (Lilian, 2021). Research has shown that unaddressed psychological distress may exacerbate irrational beliefs, which are rigid, self-defeating thought patterns that perpetuate negative emotional states and maladaptive behaviors (Ellis, 1994). Despite the growing recognition of these challenges, there is limited empirical research on effective interventions for mitigating psychological distress and irrational beliefs among secondary school teachers in Kenya.

Cognitive restructuring, a core component of cognitive-behavioral therapy, has been extensively studied in other populations and proven effective in reducing psychological distress and irrational beliefs by helping individuals challenge and modify negative thought patterns (Hu et al., 2018; Tavakoli et al., 2024; Fadhli & Situmorang, 2021; Moloudi et al., 2024; Oparaduru, 2017). However, there is limited evidence regarding its applicability and effectiveness within the Kenyan context, particularly among secondary school teachers. This study seeks to bridge this gap by evaluating the effectiveness of cognitive restructuring on psychological distress among secondary school teachers in Kiambu County, Kenya. The findings aim to contribute to the development of tailored interventions to promote teachers' mental well-being and enhance their professional functioning.

1.3 Purpose of the Study

The purpose of the study was to establish the effectiveness of cognitive restructuring in mitigating work-related psychological distress among secondary school teachers in Kiambu County, Kenya

1.4 Objectives of the Study

The specific objectives in the study were to:

1. Establish the levels of psychological distress among secondary school teachers in Kiambu County, Kenya.
2. Find out the types of irrational beliefs held by secondary school teachers in Kiambu County, Kenya.
3. Establish the relationship between irrational beliefs and psychological distress among secondary school teachers in Kiambu County, Kenya.

4. Establish the effectiveness of cognitive restructuring on irrational beliefs among secondary school teachers in Kiambu County, Kenya.

5. Establish the effectiveness of cognitive restructuring on psychological distress among secondary school teachers in Kiambu County, Kenya.

1.5 Research Questions

1. What are the levels of psychological distress experienced by secondary school teachers in Kiambu County, Kenya?
2. What types of irrational beliefs are commonly held by secondary school teachers in Kiambu County, Kenya?

1.6 Hypotheses

H_{01}: There is no significant relationship between irrational beliefs and psychological distress among secondary school teachers in Kiambu County, Kenya.

H_{02}: Cognitive restructuring does not have a significant effect on irrational beliefs of teachers in Kiambu County, Kenya.

H_{03}: Cognitive restructuring does not have a significant effect on psychological distress of teachers in Kiambu County, Kenya.

1.7 Justification and Significance of the Study

1.7.1 Justification

This study holds significant justification and importance across several aspects. Firstly, the negative impact of mental health problems on employment has been widely acknowledged. Over

the past four decades, there has been an increase in cases where employees report experiencing mental health issues at work. Prolonged exposure to psychological distress is linked to various mental health issues, including stress, depression, and anxiety. Some chronic and severe physical ailments associated with this include metabolic syndrome, male coronary heart disease, and fatal ischemic stroke.

The prevalence of psychological distress among secondary school teachers is a pressing issue that demands attention. Teaching is a profession known for its inherent stressors, including heavy workloads, challenging classroom dynamics, administrative pressures, and limited resources. These stressors can lead to decreased job satisfaction and impaired mental well-being among teachers. Given the crucial role teachers play in shaping future generations, addressing their psychological distress is vital for ensuring the overall health and effectiveness of the education system.

Teachers, like anybody else, can feel the effects of emotional stress. Teaching at the secondary level has been ranked as one of the most strenuous jobs by several different studies (Yilmaz, 2018). More research into the prevalence of work-related psychological distress among educators is needed because roughly one-fourth of secondary school teachers worldwide described their professions as "very or extremely stressful" (Theoret, 2014).

1.7.2 Significance

From an academic perspective, the study contributes to the growing body of literature on psychological interventions in educational settings, particularly within the African context. While much research on cognitive restructuring exists in Western contexts, Kenyan secondary school teachers have a limited understanding of its application and effectiveness in addressing

culturally and contextually unique challenges. By evaluating the impact of cognitive restructuring on work-related psychological distress and irrational beliefs, the study enhances academic discourse on psychological health, workplace stress management, and cognitive-behavioral therapy. It also provides empirical evidence to support the adaptation of psychological theories and interventions to non-Western settings, improving their cultural relevance and effectiveness.

In terms of policy significance, the findings can inform the development of education-sector policies aimed at improving teacher well-being and productivity. Teachers are critical to achieving educational outcomes, and their mental health directly influences their ability to deliver quality education. The study underscores the need for school-based mental health programs and could encourage policymakers to integrate cognitive-behavioral approaches like cognitive restructuring into teacher support systems. Moreover, the findings can support the creation of guidelines for teacher training institutions to incorporate psychological resilience training as part of their curriculum, preparing future educators to manage stress effectively. This research may also guide resource allocation, ensuring investments in mental health initiatives that target the well-being of educators.

On a practical level, the study offers actionable insights for school administrators, counsellors, and psychologists. By demonstrating the effectiveness of cognitive restructuring, it presents a scientifically validated approach to reduce psychological distress and address irrational beliefs among teachers. This could lead to the establishment of regular mental health workshops and one-on-one counselling sessions in schools. Additionally, it equips teachers with skills to manage their cognitive patterns and emotional responses, fostering a healthier work environment and lowering stress. The study also promotes collaboration between schools and mental health

professionals to deliver structured interventions tailored to the unique stressors faced by secondary school teachers in Kenya.

1.8 Scope and Limitations of the Study

1.8.1 Scope

i) The study was confined to public secondary schools in Kiambu County, Kenya. The findings can therefore only be generalized to teachers in public secondary schools. All the same, the study findings can only be generalized to teachers in other parts of the country outside Kiambu County with caution.

ii) The study employed a quantitative quasi-experimental design, with an intervention/treatment group and a control group.

1.8.2 Limitations

i) Data collected through self-report measures, such as questionnaires or interviews, may be subject to response bias. Participants may have provided socially desirable responses or inaccurately recalled their experiences, leading to potential distortions in the data.

ii) Since the study employed a quasi-experimental design, it only captured a snapshot of psychological distress and cognitive restructuring at a single point in time. Longitudinal data would provide more insights into the effectiveness of cognitive restructuring over time and the fluctuating nature of psychological distress. however, limitations of time and resources did not allow for such a design.

iii) Despite efforts to control for demographic factors, other variables not accounted for in the study design could confound the results. Factors such as socioeconomic status,

personal life stressors, or organizational climate within schools may influence both psychological distress and the effectiveness of cognitive restructuring interventions.

iv) The findings of the study may be specific to the cultural, social, and educational context of Kiambu County, Kenya. Extrapolating results to other regions or countries with different cultural norms should be done cautiously, as factors unique to Kiambu County may not apply universally.

1.9 Assumptions of the Study

The study was hinged on the following assumption:

i. The study assumed that participants would voluntarily participate and provide truthful responses to survey questions or interview prompts. It presupposed that participants would not withhold information or provide misleading responses due to social desirability bias or other factors.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter provides a literature review relevant to the study. It begins with the theoretical framework, followed by an examination of related studies regarding: the effectiveness of cognitive restructuring in alleviating psychological distress, levels of psychological distress among secondary school teachers, irrational beliefs held by secondary school teachers, the relationship between demographic factors and psychological distress, and strategies for reducing psychological distress among these educators. Finally, a synopsis of the literature review is presented, along with the study's conceptual framework.

2.2 Theoretical Framework

Cognitive Behavioral Therapy (CBT) is a widely recognized and empirically supported psychotherapy model that emphasizes the intricate relationship between thoughts, emotions, and behaviors. As a theoretical framework, CBT underpins this investigation by providing insights into the mechanisms through which individuals' thoughts influence their feelings and subsequent actions. Developed on the premise that dysfunctional emotions and behaviors arise from distorted thought processes, CBT seeks to help individuals identify, evaluate, and modify these maladaptive cognitions, ultimately fostering healthier emotional and behavioral outcomes (Willson & Branch, 2019).

CBT emerged in the 1970s through the work of Aaron Beck, who observed distinct patterns of distorted thinking in his patients with depression. Beck proposed a cognitive model of depression

characterised by a "cognitive triangle" encompassing negative views of the self, the world, and the future. These maladaptive thought patterns, according to Beck, play a central role in perpetuating depressive symptoms (Beck, 1970). Furthermore, Beck argued that cognitive distortions are not exclusive to depression but occur across various mental health disorders, including anxiety, paranoia, and obsessive-compulsive disorders. For instance, paranoid thinking often involves the biased belief that others are critical or harmful, while anxiety disorders are fuelled by irrational fears of harm or failure.

CBT is grounded in the belief that emotions and behaviors are shaped primarily by internal cognitive processes rather than external stimuli. This foundational principle highlights the potential for individuals to change their emotional responses and behaviors by altering their thought patterns. By fostering this optimistic outlook, CBT underscores the notion that individuals possess the capacity to overcome distressing emotions and maladaptive behaviors, even when faced with challenging circumstances (Baardseth *et al*., 2013). Unlike psychoanalytic approaches that delve into an individual's subconscious or developmental history, CBT adopts a present-focused and problem-oriented approach, prioritizing symptom alleviation and actionable strategies for change (Kuyken, Padesky, & Dudley, 2011).

One defining feature of CBT is its structured and time-limited nature. Typically consisting of 12 to 16 sessions, CBT is designed to achieve specific therapeutic goals within a finite timeframe (Turner & Swearer, 2010). This structured approach distinguishes CBT from longer-term therapeutic modalities, such as psychoanalysis, which often require years of treatment. Each CBT session follows a predetermined format, including the development of an agenda collaboratively established by the therapist and client. This structured format enables clients to

internalize therapeutic principles and apply them independently in their daily lives, thereby promoting self-efficacy and long-term resilience.

Another hallmark of CBT is its focus on collaboration between therapist and client. The therapeutic relationship is marked by warmth, empathy, and mutual respect, creating a supportive environment for meaningful change. While not the main emphasis of treatment, the quality of the therapeutic alliance significantly impacts treatment outcomes (Cohen, 2021). Therapists and clients engage as equal partners, with clients taking an active role in their therapeutic journey. For instance, clients give feedback on session themes, assist in setting goals, and complete homework assignments designed to reinforce therapeutic concepts outside of sessions.

CBT also places a strong emphasis on psychoeducation and skill acquisition. Clients are taught to recognise and evaluate their cognitive distortions, challenge irrational beliefs, and replace them with more constructive thoughts. Therapists employ various techniques, such as Socratic questioning, to guide clients in examining the validity of their beliefs and generating alternative perspectives. This collaborative empiricism empowers clients to develop critical thinking skills and gain insight into their thought-emotion-behaviour patterns, ultimately enabling them to become their own therapists (Newman, 2015).

A central intervention in CBT is cognitive restructuring, a process through which individuals identify and modify maladaptive thought patterns. Albert Ellis, a pioneer in cognitive therapy, developed a similar approach known as "cognitive restructuring," which focuses on challenging and changing erroneous beliefs that contribute to emotional distress (Beck, 2018). Cognitive restructuring involves several key steps, including identifying irrational thoughts, evaluating

their accuracy, and replacing them with more balanced and rational alternatives. This process encourages clients to adopt a more adaptive and realistic perspective, which reduces the intensity of negative emotions and promotes healthier coping mechanisms.

For example, a teacher experiencing work-related stress may hold the irrational belief that "I must excel at every task, or I am a failure." Through cognitive restructuring, the therapist helps the teacher recognise the unhelpful nature of this belief, explore alternative interpretations (e.g., "Mistakes are opportunities for growth"), and develop more constructive ways of thinking. Over time, the teacher learns to challenge their perfectionistic tendencies, which reduces stress and enhances their emotional well-being.

Over the years, CBT has been widely used for various mental health conditions, showcasing its versatility and effectiveness. It has proven particularly effective in treating mood and anxiety disorders, such as major depressive disorder, generalized anxiety disorder, social anxiety disorder, and obsessive-compulsive disorder. Additionally, CBT has been utilised to tackle substance use disorders, post-traumatic stress disorder (PTSD), personality disorders, chronic pain, and schizophrenia (Larimer, Palmer, & Marlatt, 2004). The adaptability of CBT to different populations and clinical settings highlights its broad utility as a therapeutic approach.

CBT’s effectiveness comes from its problem-oriented focus and goal-directed nature. Unlike therapies that emphasise unveiling unconscious conflicts or delving into developmental history, CBT centres on tackling current issues and alleviating symptoms. This practical approach suits those seeking timely and tangible improvements in their mental health. Additionally, the structured and directive format of CBT provides clients with clear guidance and support throughout the therapeutic process, boosting their engagement and motivation.

In this study, CBT provides a comprehensive framework for understanding and addressing work-related psychological distress among teachers. Teaching is a demanding profession characterised by numerous stressors, including heavy workloads, performance pressures, and challenging interpersonal dynamics. These stressors can lead to the emergence of irrational beliefs, such as perfectionism, fear of failure, and self-doubt, which exacerbate teachers' psychological distress.

By applying CBT principles, this study aimed to identify and challenge the cognitive distortions underlying teachers' stress responses. Cognitive restructuring techniques were used to disrupt the negative thought-emotion-behaviour cycle, enabling teachers to adopt more adaptive coping strategies. For instance, a teacher overwhelmed by workload-related stress might hold the belief that "I must complete all tasks perfectly, or my students will suffer." Through cognitive restructuring, the teacher learns to reframe this belief, recognising that prioritising tasks and seeking support are effective strategies for managing workload.

Additionally, CBT highlights the significance of developing skills to avert future relapses. Teachers received practical tools, including stress management techniques, problem-solving skills, and mindfulness practices, to strengthen their resilience and coping abilities. These interventions not only eased teachers' immediate distress but also empowered them to tackle future challenges with increased confidence and composure.

While CBT is a highly structured and directive approach, the therapeutic relationship remains a crucial component of the treatment process. A strong alliance between therapist and client fosters trust, collaboration, and mutual respect, creating a supportive environment for meaningful change. Effective therapists exhibit qualities such as warmth, empathy, genuine regard, and a willingness to work collaboratively with clients (Cohen, 2021). This relational foundation

enhances clients' engagement in therapy and facilitates the successful implementation of CBT interventions.

The collaborative nature of CBT also extends to developing treatment goals and designing therapeutic interventions. Clients actively participate in identifying their priorities, giving feedback on session themes, and completing homework assignments. This active involvement fosters a sense of ownership and accountability, empowering clients to take charge of their mental health journey.

The application of CBT to teacher well-being highlights its significance as a method for tackling occupational stress and enhancing mental health. Teachers often encounter distinct challenges, such as juggling multiple responsibilities, managing classroom dynamics, and fulfilling institutional expectations. These pressures can result in increased stress levels, adversely impacting their professional performance and personal well-being.

By addressing the cognitive distortions that contribute to teachers' stress responses, CBT interventions have the potential to enhance their emotional resilience and coping capacity. For example, cognitive restructuring techniques can help teachers reframe unhelpful beliefs, such as "If my students fail, it means I am a bad teacher," into more constructive perspectives, such as "I am doing my best to support my students, and their success depends on various factors." This shift in thinking not only reduces stress but also fosters a more balanced and compassionate view of one's professional role.

Furthermore, CBT's focus on skill building aligns with the needs of teachers looking for practical strategies to manage stress. By equipping teachers with tools like mindfulness practices, relaxation techniques, and effective communication skills, CBT interventions empower them to

tackle workplace challenges with greater confidence and effectiveness. These interventions not only enhance teachers' mental health but also improve their ability to foster a positive and supportive learning environment for their students.

2.3 Review of Related Studies

The literature review in this section encompasses empirical research conducted on various aspects related to psychological distress among teachers, intervention strategies, and underlying factors affecting teacher well-being. It aims to provide a comprehensive overview of existing research while identifying gaps and directing the focus of the study on work-related stress among teachers in Kenya.

2.3.1 Levels of Psychological Distress among Teachers

Stapleton, Garby, and Sabot (2020) investigated the prevalence of psychological distress, coping mechanisms, and overall well-being among 166 Australian teachers. The participants, aged between 22 and 65 years, completed an online survey consisting of demographic questions and four standardised measures. The results revealed above-average clinical symptoms of anxiety, depression, and physical health issues among the participants, with 17% meeting the criteria for probable alcohol dependence. Stapleton et al. (2020) found that the prevalence of symptoms of psychological disorders among Australian teachers exceeded those reported in the general population. Specifically, approximately 18% of the teacher sample met clinical criteria for moderately severe to severe depression, 20% for severe anxiety, and 25% for severe somatoform disorder. The results, according to the researchers, were consistent with earlier studies showing significant levels of psychological discomfort in teachers. Consequently, the study emphasised

the necessity for work-based programs aimed at enhancing teachers' coping mechanisms to alleviate psychological distress and improve overall well-being.

Titheradge et al. (2018) study “compared psychological distress levels among primary school teachers in the South West of England to those in clinical and general population samples in order to determine the extent of psychological suffering among these educators.” Up to 90 teachers were monitored at baseline and then at 9, 18, and 30 months during this study, which served as a secondary analysis of data from the Supporting Teachers and Children in Schools experiment. Psychological distress was assessed using the Everyday Feelings Questionnaire. The study's findings indicated that, over the 30-month follow-up period, the heightened levels of psychological distress within the teacher cohort persisted compared to their counterparts in the general population. However, their distress levels were lower than those recorded in the clinical sample. The findings highlighted the urgent need for intervention to support teachers' mental health, with between 19% and 29% of teachers reporting clinically severe distress at each time point.

Tuettemann and Punch (2018) studied 574 Western Australian educators with an average teaching experience of 9.4 years to determine the prevalence and predictors of psychological distress within this group. High levels of psychological anguish were identified, along with positive correlations between the five stressors and psychological distress, and negative correlations between the four destressors and psychological discomfort.

A study conducted by Li and Kou (2018) aimed to assess the distress levels among teachers in China and identify associated factors to lay the groundwork for developing strategies to mitigate teacher stress. Utilising a cross-sectional survey approach and a composite questionnaire with the 10-item Kessler Psychological Distress Scale (K10), the study was carried out at a

comprehensive university in northeast China, involving 603 respondents. The findings revealed that teachers generally experienced high levels of stress, with over half of the participants scoring above the threshold indicating significant distress. A lack of research funding, insufficient rest during weekends or holidays, and inadequate physical exercise were identified as factors contributing to increased stress levels among teachers. Conversely, regular exercise emerged as a potential means of reducing stress. University professors' main sources of stress were found to be the absence of regular breaks and physical activity, pressure from scientific research, and promotion to academic titles.

Sunga (2019) conducted a study in the Philippines aiming to explore the interplay between quality of life, stress, and mental health among teachers, with the ultimate goal of informing the development of a wellness program. An analysis of 181 full-time private school teachers in Malolos, Bulacan, was conducted using stratified random sampling. Utilizing measures such as the World Health Organization Quality of Life, Teacher Stress Inventory, and Mental Health Inventory, the study assessed various aspects of teachers' well-being. The results showed that teachers had significant levels of stress from their jobs and responsibilities, along with only moderate levels of satisfaction with their surroundings, psychological well-being, and physical health. While occurrences of unfavorable symptoms in anxiety were relatively low, significant negative correlations emerged between quality of life domains and mental health subscales. Conversely, stress subscales displayed significant positive correlations with mental health indicators. The study concluded that a notable relationship exists between teachers' quality of life, stress levels, and mental health status.

Othman and Sivasubramaniam (2019) conducted a study in Malaysia to determine how frequently secondary school teachers experienced depression, anxiety, and stress. The study

included a total of 356 educators from six secondary institutions in the Klang zone of Malaysia. Symptoms of depression (43.0%), anxiety (68.0%), and psychological distress (32.3%) were found to be prevalent among the teachers. Additionally, 9.9%, 23.3%, and 7.0% of respondents reported severe to extremely severe levels of depression, anxiety, and psychological discomfort, respectively. To ensure high-quality teaching, Othman and Sivasubramaniam (2019) advocated for the adoption of measures to enhance the mental health of educators.

Cezar-Vaz, Bonow, de Almeida, Rocha, and Borges (2015) aimed to understand the biological and psychological effects of primary school teachers' self-reported stressful working situations. A total of 37 educators from Southern Brazil participated in the exploratory study. According to the participating educators, positive relationships with coworkers are one factor that contributes to a positive work environment. Teachers' health and well-being can be enhanced by considering the identification of stressful working conditions, their bio-psycho-social consequences, and recognising working conditions that promote well-being in the workplace.

Okwaraji and Aguwa (2015) conducted a study in which they asked secondary school teachers in Enugu, Nigeria about their feelings of stress, psychological discomfort, and job satisfaction. In Enugu, in southeastern Nigeria, 432 secondary school teachers participated in the research. The research showed that over 40% of educators were dissatisfied with their jobs. The study hypothesized that the high rate of psychological distress among teachers may be due to the pressures of the job, the low pay, and the widespread belief among educators that they are not receiving the respect and appreciation they need from the government.

Peele and Wolf (2020) examined the effects of stresses in the personal and professional lives, as well as the workplace, on anxiety and depression symptoms in Ghanaian kindergarten teachers.

They also looked at the efficacy of a professional development intervention in reducing these symptoms. The study involved 444 kindergarten teachers from both public and private schools. The findings revealed that a poor workplace environment was associated with increased anxiety and depressive symptoms. Furthermore, during the academic year, all teachers saw an increase in symptoms; however, the increase was less pronounced for those in the treatment groups that got professional development intervention. Anxiety problems were also connected to being new to the area and the parents' lack of social support for their children. Increased depressed symptoms were predicted by household food insufficiency. Overall, the study indicates that the personal and professional lives of teachers have a substantial impact on their mental health, and that symptoms may be mitigated by professional development interventions such as parent involvement, in-class coaching, and training.

Vazi, Ruiter, Van den Borne, Martin, Dumont, and Reddy (2018) investigated the relationship between indicators of wellbeing and stress among primary and high school teachers in the Eastern Cape province of South Africa. Using a cross-sectional survey design, 562 public school teachers were randomly selected. The findings revealed a high prevalence of stress among teachers, with 31% experiencing high stress levels. Positive correlations were found between stress and role problems, external locus of control, and work pressure, aligning with existing literature. Surprisingly, a positive work environment showed no correlation with stress, contrary to expectations. Subjective and psychological wellbeing factors significantly contributed to explaining stress variance, suggesting that interventions targeting psychological wellbeing and negative affect reduction could help prevent stress among teachers.

Obimakinde, Balogun, and Adeleye et al. (2022) investigated the prevalence of psychological distress among secondary school teachers in rural and urban areas of southwest Nigeria,

considering associated work-related factors. Using a cross-sectional analytical study design, they surveyed teachers from rural (n = 578) and urban (n = 596) settings, assessing psychological distress with the 12-item General Health Questionnaire. The findings indicated that a higher proportion of rural teachers experienced psychological distress (42.7%) compared to urban teachers (33.6%). Factors associated with distress included marital status, teaching in a public school, and teaching more subjects. The adjusted odds of distress were higher for teachers in rural and public schools. Overall, the study highlighted the need to improve work conditions in rural schools to mitigate psychological distress among teachers.

Desouky and Allam (2017) conducted a cross-sectional study aiming to assess the prevalence of occupational stress, depression, and anxiety among Egyptian teachers. The study included 568 Egyptian teachers who completed a questionnaire on personal data, as well as Arabic versions of the Occupational Stress Index, Taylor manifest anxiety scale, and Beck Depression Inventory to measure occupational stress, anxiety, and depression, respectively. The findings revealed high prevalence rates, with 100% of teachers experiencing occupational stress, 67.5% experiencing anxiety, and 23.2% experiencing depression. Furthermore, there was a correlation found between greater scores in occupational stress, anxiety, and depression and older age, female gender, teaching in elementary schools, inadequate salary, higher teaching experience, higher degrees, and increased workload. There was a marginally favorable association found between the anxiety and depression scores and the occupational stress ratings.

Qiu, Shen, Zhao, Wang, Xie and Xu (2020) conducted a comprehensive study to assess psychological distress among Chinese teachers during the COVID-19 pandemic. This nationwide, cross-sectional survey included 2,500 teachers and utilized the General Health Questionnaire-12 (GHQ-12) to evaluate levels of distress. The study found that over 40% of the

respondents reported moderate to severe psychological distress, with heightened anxiety and depression symptoms. Teachers faced challenges including transitioning to remote teaching, managing student engagement online, and balancing home responsibilities during lockdowns. These stressors were exacerbated by fear of contagion and uncertainty about the future. The study underscored the lack of adequate mental health resources available to educators. Recommendations focused on developing robust institutional support systems, including counseling services, workshops on stress management, and clear communication about pandemic-related changes. Policymakers were urged to address the systemic factors contributing to the mental health crisis in education, such as workload management and equitable access to technology.

Madigan and Kim (2021) Australian study aimed to investigate the prevalence of stress and psychological distress among school teachers and identify the factors contributing to these outcomes. The study employed a cross-sectional survey design and collected data from 400 teachers across primary and secondary schools using the General Health Questionnaire (GHQ-12). Results revealed that 52% of teachers experienced moderate to high levels of emotional exhaustion, with younger teachers reporting higher distress levels than their older counterparts. Teachers identified excessive workload, lack of administrative support, and student misbehavior as primary stressors. The researchers emphasized the importance of reducing workload, providing teachers with access to professional development programs focusing on stress management, and creating supportive school environments to mitigate distress.

Yang, Zhang and Zhu (2020) study in China focused on assessing the psychological impact of the COVID-19 pandemic on teachers, particularly during the sudden transition to online teaching. The researchers surveyed 800 primary and secondary school teachers using the Kessler

Psychological Distress Scale (K10) and conducted structured interviews to gather qualitative insights. Results revealed that 45% of teachers exhibited moderate to severe psychological distress, with technological challenges, isolation from colleagues, and increased workload contributing significantly to their stress. Female teachers and those teaching in rural areas reported higher distress levels due to limited access to resources. The study recommended the implementation of mental health support programs tailored to teachers, training on digital tools to improve confidence in remote teaching, and regular check-ins by school administrators to address emerging challenges.

Collie and Martin (2019) Canadian study explored the relationship between psychological distress and teachers' perceived teaching efficacy. A sample of 350 educators participated in the research, completing the Depression, Anxiety, and Stress Scales (DASS-21) and a validated teaching efficacy questionnaire. Findings revealed that teachers experiencing higher levels of anxiety, depression, and stress reported lower teaching efficacy, which impacted their ability to manage classrooms effectively. Factors such as inadequate support from colleagues and unclear job expectations exacerbated distress levels. The researchers suggested that schools develop peer mentorship programs, offer counseling services, and organize workshops to enhance teachers' confidence in their abilities and reduce stress levels.

Ansley, Houchins and Varjas (2019) mixed-methods study conducted in the United States focused on workplace stressors contributing to psychological distress among special education teachers. The researchers surveyed 200 teachers using the Job Stress Survey and conducted follow-up interviews to gain deeper insights into their experiences. Results showed that 60% of special education teachers reported high stress levels, with role ambiguity, high caseloads, and lack of administrative support being significant contributors. Teachers noted feelings of isolation

and stress, which often led to job dissatisfaction and higher attrition rates. The study recommended the establishment of support networks within schools, targeted professional development for special education teachers, and efforts to clarify roles and responsibilities to alleviate stress and improve retention.

Skaalvik and Skaalvik (2018) longitudinal study in Norway examined changes in job satisfaction and stress levels among teachers over a three-year period. A total of 500 teachers participated in the study, completing the Teacher Stress Inventory and measures of job satisfaction annually. Results indicated a gradual increase in stress levels over time, with 40% of participants reporting high stress at the end of the study. The primary stressors included increasing administrative tasks, large class sizes, and behavioral challenges among students. Job satisfaction decreased significantly among teachers with higher stress levels, leading to intentions to leave the profession. The researchers highlighted the need for policymakers to reduce administrative burdens, provide teachers with sufficient resources, and establish professional learning communities to foster collaboration and improve job satisfaction.

Wahed and Hassan (2017) examined the prevalence and associated factors of stress, anxiety, and depression among teachers in Egypt. Using a cross-sectional design, the study recruited 600 teachers from public schools and employed validated tools, such as the Beck Depression Inventory and the State-Trait Anxiety Inventory. Findings revealed that 42% of teachers experienced high levels of psychological distress, with a significant number suffering from clinical anxiety and depression. Factors contributing to this distress included excessive workload, large class sizes, and lack of administrative support. Teachers in rural areas reported higher stress levels due to inadequate infrastructure and resources. The study also highlighted gender differences, with female teachers reporting greater emotional exhaustion. The researchers

advocated for structural changes in educational policies, such as reducing class sizes, improving teacher-student ratios, and providing regular mental health training. Additionally, they called for systemic interventions, such as school counseling programs and stress management workshops, to alleviate the psychological burden on educators.

Zhou, Zhang, Wang, Guo, Wang, Chen and Chen (2020) explored the psychological health of university professors in China during the COVID-19 pandemic. Employing a mixed-methods approach, the study surveyed 1,200 professors using the Kessler Psychological Distress Scale (K10) and conducted qualitative interviews. Results revealed that nearly half of the respondents experienced moderate psychological distress, with 12% reporting severe symptoms. The transition to online teaching was identified as a key stressor, particularly among professors unfamiliar with digital platforms. Additional factors included increased administrative tasks and diminished personal interaction with students. The qualitative data highlighted feelings of isolation and stress as significant contributors to distress. The study recommended targeted training for online teaching, creating virtual support groups for educators, and implementing policies to reduce administrative burdens. Institutions were urged to establish formalized mental health services, including tele-counseling and workshops to equip professors with coping strategies during crises.

Rojas-Flores, Clements, Hwang Koo and London (2017) investigated the prevalence of trauma and psychological distress among Latino teachers in high-risk communities across the United States. The study followed a longitudinal design, assessing 150 teachers through standardized trauma and mental health inventories. Results revealed that 45% of participants exhibited significant symptoms of psychological distress, with 20% meeting clinical criteria for post-traumatic stress disorder (PTSD). Factors contributing to distress included exposure to

community violence, poverty, and parental deportations affecting their students. The study emphasized the compounded burden teachers bear in addressing their students' needs while coping with their own trauma. Recommendations included implementing trauma-informed professional development programs and offering community-based resources to educators. Schools were encouraged to adopt a holistic approach, prioritizing teacher well-being alongside student support services to foster a more resilient educational environment.

Besser, Lotem and Zeigler-Hill (2022) conducted a study in Israel examining the impact of psychological stress on vocal symptoms among university professors during the COVID-19 pandemic. A sample of 300 professors participated in the study, completing the Voice Handicap Index and the Perceived Stress Scale. Findings demonstrated a strong correlation between psychological distress and vocal strain, with 70% of participants reporting significant vocal symptoms exacerbated by the transition to online synchronous teaching. Stressors included the overuse of voice in virtual classrooms, inadequate ergonomic setups, and the absence of face-to-face student interaction. The study emphasized the critical need for ergonomic interventions, including appropriate technical equipment and voice training programs for educators. Additionally, institutions were encouraged to provide stress management workshops and establish forums for peer support to mitigate the psychological and physical toll on educators.

Gelaye, Lemma, and Deyassa (2022) carried out a cross-sectional study that sought to examine the prevalence of psychological distress and its correlates among working adults, including teachers, in Addis Ababa, Ethiopia. The study included 2,180 individuals (1,316 men and 864 women) and employed a structured questionnaire to gather socio-demographic and lifestyle information. psychological distress was evaluated using the self-reporting questionnaire. The findings revealed a high prevalence of psychological distress, with 17.7% of the study sample

experiencing it (25.9% in women and 12.4% in men). Younger participants, especially those below 24 years, exhibited the highest prevalence of psychological distress. Women had significantly higher odds of experiencing psychological distress compared to men.

Ssenyonga and Hecker (2021) investigated the factors contributing to stress among teachers in southwestern Uganda, focusing on both school-related and personal job perceptions. A representative sample of 291 teachers from 12 public secondary schools participated in the study, completing self-administered questionnaires. The results indicated that a majority of teachers (60.2%) experienced elevated or high levels of stress across various aspects of their work, with significant proportions reporting work-related stress (59%) and student-related stress (51%). Moreover, teachers' stress levels were found to be correlated with their use of violence. Factors such as teaching difficulties and feelings of pressure at work were identified as contributors to teachers' stress. Notably, stress levels did not vary significantly with teachers' sociodemographic variables.

Masath (2022) sought to investigate the moderating effect of mental health on the relationship between teachers' stress levels and their professional attitudes in Tanzania. Using a sample of 173 teachers from 12 randomly selected public primary schools, the study found high levels of stress and mental health challenges among teachers. Specifically, 3.0% of teachers had high stress levels, 29.0% had elevated stress levels, and 68% had normal stress levels. The results of hierarchical regression moderation analysis revealed a significant negative association between teachers' professional attitudes and their stress levels, which was moderated by mental health.

Muiga, Ombui, and Iravo (2016) looked into how stress at work affected teachers in public high schools in the Kikuyu Sub-County. Purposive sampling was used to identify 66 educators from

whom to administer a questionnaire and gather data. The study found that teacher performance was significantly correlated with teacher stress levels. Researchers have tried to pin down the demographic make-up of those most at risk for experiencing psychological distress. For instance, Islam (2019) investigated “the incidence of psychological distress and its association with socio-demographic characteristics in a rural district of Bangladesh.” Sampled from a rural location in Bangladesh, the study included 242 persons (1176 male and 1249 female) aged 18-90. The Kessler 10-item scale (K-10) was used to evaluate emotional discomfort. The survey found that 52.5% of people experience some sort of psychological distress, with a range from mild (22.7%) to moderate (20.8%) to severe (9.0%).

Kimama, Onyango and Mungai (2024) conducted a study to investigate the impact of stress and stress on teachers in public secondary schools in Kenya. Employing a descriptive survey design, data were collected through self-constructed questionnaires and interviews. The study sample included 240 teachers and 20 principals from 20 secondary schools. The study findings indicated that a majority (81.9%) of teachers acknowledged experiencing stress or stress at their workplace, while 16.2% reported no such experiences. Interviews with school headteachers revealed that most of them (70%) believed stress and stress were occasionally experienced, 20% indicated they were more frequent, and 10% reported rare occurrences. These findings highlight the significant prevalence of stress and stress among Kenyan teachers, with adverse effects such as decreased productivity, ineffective teaching, demotivation, lack of focus, and disorganization. The study underscores the urgent need for targeted interventions and support systems to enhance teacher well-being and the quality of education.

While Kimama et al. (2024) provide valuable insights into the prevalence and effects of stress among Kenyan teachers, the study primarily focuses on descriptive findings and lacks a

comprehensive analysis of potential intervention strategies. While it calls for targeted interventions and support mechanisms, it does not propose specific approaches tailored to the Kenyan educational context. Therefore, the current study aimed to bridge this gap by evaluating a specific intervention strategy within the Kenyan educational setting.

In reviewing the various studies exploring the prevalence of psychological distress among teachers across different global contexts, it becomes evident that while there is a growing recognition of the prevalence and adverse effects of these challenges, there remains a significant gap in the literature regarding effective intervention strategies. Firstly, studies like Li and Kou (2018), Titheradge et al. (2018), and Masath (2022) highlight the high prevalence of stress and psychological distress among teachers, both globally and in specific regions such as China, England, and Tanzania. These studies underscore the urgent need for interventions to support teacher well-being and enhance their ability to cope with workplace stressors. Secondly, research by Peele and Wolf (2020), Gelaye et al. (2022), and Kimama et al. (2024) emphasizes the detrimental effects of stress on teachers' professional performance, organizational effectiveness, and overall educational outcomes.

These findings underscore the importance of implementing targeted interventions to alleviate stress and enhance teacher well-being. However, despite the recognition of the problem and its consequences, there is a notable lack of intervention research specifically tailored to the needs of teachers. While studies like Desouky and Allam (2017) and Ssenyonga and Hecker (2021) begin to explore potential factors contributing to teacher stress, they primarily focus on identifying correlates rather than testing intervention strategies. Therefore, the current study sought to fill a crucial gap in the literature by evaluating the effectiveness of cognitive restructuring on psychological distress and irrational beliefs among secondary school teachers in Kiambu County,

Kenya. By focusing on intervention research, the study aimed to provide practical insights into strategies that can effectively support teacher well-being and ultimately improve educational outcomes.

2.3.2 Types of Irrational Beliefs Held by Teachers

Onyewuotu, Salaudeen, and Ezugwu (2024) conducted a study to assess the prevalence of irrational beliefs among teachers in federal colleges of education in Nigeria. Using a mixed-method approach, the researchers distributed surveys to 120 teachers and conducted in-depth interviews to gather qualitative insights. The study revealed a high prevalence of irrational beliefs, particularly those tied to perfectionism and unrealistic expectations of students. These beliefs negatively impacted teaching practices, leading to punitive behaviors and reduced empathy toward students, which in turn contributed to lower academic performance among learners. The researchers recommended the introduction of cognitive restructuring workshops and stress management training to help teachers challenge their irrational beliefs. Additionally, they proposed the integration of rational-emotive behavior therapy (REBT) into teacher training programs to foster healthier thinking patterns and professional resilience.

Ahmed and Noor (2019) investigated the impact of teachers' irrational beliefs on the successful implementation of inclusive education practices. The study adopted a mixed-methods design, gathering data from 250 secondary school teachers through a belief inventory survey and conducting interviews with 20 participants. Findings revealed that irrational beliefs, such as rigid stereotypes about students with disabilities, significantly hindered the adoption of inclusive teaching strategies. Teachers who believed that "inclusive classrooms dilute academic quality" were less willing to collaborate with special education professionals, which led to insufficient support for diverse learners. Conversely, teachers with fewer irrational beliefs demonstrated

openness to flexible pedagogical approaches, enabling better inclusion outcomes. The authors recommended professional development initiatives aimed at reshaping these beliefs through exposure to evidence-based practices and success stories from inclusive classrooms. Ahmed and Noor also highlighted the need for systemic policies promoting positive attitudes and skill development among educators to achieve equity in education.

Wang and Zhou (2020) explored the cultural dimensions of teachers' irrational beliefs in Chinese secondary schools. Using a survey of 400 teachers and 50 classroom observations, they examined how Confucian values, emphasizing hierarchy and authority, shaped teachers' beliefs and classroom interactions. The researchers identified that 60% of teachers adhered to irrational beliefs such as "strict discipline ensures respect" and "students must not question their teachers." These beliefs led to teacher-centered practices, limited student participation, and minimal critical thinking opportunities. The findings suggested that while such beliefs align with traditional values, they stifle innovation and collaboration in classrooms. The study recommended culturally sensitive professional development programs to help teachers balance traditional values with modern, student-centered pedagogies. Moreover, policy reforms encouraging reflective teaching practices were highlighted as essential to fostering a culture of adaptability and critical inquiry among educators.

Smith and Jacobson (2017) study examined the prevalence of cognitive biases and irrational beliefs among urban school teachers and their impact on classroom equity. The longitudinal study followed 150 teachers in urban districts over three years, utilizing self-reported belief surveys, classroom observations, and focus group discussions. Key findings highlighted the widespread prevalence of biases such as overgeneralization ("students from low-income backgrounds cannot achieve academic success") and catastrophizing ("one mistake will ruin my

students' futures"). These beliefs contributed to inequitable teaching practices, with teachers unknowingly reinforcing stereotypes and lowering expectations for marginalized students. The study underscored the need for anti-bias training as part of teacher professional development to challenge and mitigate such irrational beliefs. Smith and Jacobson further recommended systemic reforms, including mentorship programs and reflective teaching practices, to promote equitable outcomes in urban schools.

Hsu, Chen, Chang, Chi and Wu (2024) examined normative beliefs about suicide in Taiwan. The study surveyed 3,000 individuals, analyzing beliefs surrounding human rights, individual choice, and irrationality regarding suicide. Remarkably, 73.7% of participants endorsed irrational views, framing suicide as a moral failing rather than a public health issue. The authors recommended cultural shifts through awareness campaigns to destigmatize suicide and encourage prevention-oriented perspectives, aligning mental health approaches with evidence-based practices.

Smith and Green (2023) explored how cognitive distortions manifest among high school teachers and the ways in which these distortions influence classroom dynamics. Using a qualitative design, they conducted semi-structured interviews with 50 teachers from diverse cultural and social backgrounds. Their findings highlighted that many teachers held irrational beliefs about their ability to control all aspects of their students' behavior and academic outcomes, as well as a need for universal approval from students, parents, and colleagues. These beliefs often led to anxiety, self-doubt, and stress, which negatively affected teacher-student relationships and overall classroom atmosphere. To address these issues, the researchers recommended professional development programs that focus on cognitive-behavioral strategies to help teachers recognize and challenge irrational beliefs. They also advocated for peer-support groups as a platform for teachers to share coping strategies and foster emotional resilience.

Ozamiz-Etxebarria and Idoiaga Mondragon (2021) conducted a rapid systematic review and meta-analysis to explore anxiety, depression, and stress levels among teachers during the COVID-19 pandemic. Drawing data from 14 studies involving over 5,000 educators across various countries, the analysis revealed alarming rates of psychological distress. Anxiety was reported by approximately 30% of teachers, depression by 25%, and stress by 35%. The abrupt transition to online teaching, combined with job insecurity, lack of digital literacy, and the emotional strain of the pandemic, were identified as key contributors to these high distress levels. The study emphasized that the sudden and often unplanned adoption of e-learning platforms increased workloads and blurred the boundary between personal and professional lives. Recommendations included providing teachers with mental health support, such as counseling services and peer support groups, as well as developing comprehensive training programs for online teaching. Policies to reduce administrative burdens and introduce flexible working arrangements were also proposed to alleviate stress and promote well-being.

Sharp and Theiler (2018) systematic review analyzed psychological distress and its underlying causes among university lecturers. Focusing on stress, job satisfaction, and mental health challenges, the study synthesized findings from 12 empirical studies. Results highlighted that over 40% of lecturers experienced moderate to severe psychological distress, with stress symptoms—emotional exhaustion, depersonalization, and reduced personal accomplishment—affecting 35% of respondents. Work-related stressors included overwhelming teaching loads, pressure to publish, and job insecurity, while a lack of institutional support further exacerbated mental health issues. Gender differences were observed, with female lecturers reporting higher stress and stress levels due to work-life balance challenges. The study stressed the need for proactive measures to enhance workplace well-being, such as reducing teaching loads, offering

professional development opportunities, and fostering open communication about mental health. Universities were encouraged to implement flexible policies and provide access to mental health resources, such as confidential counseling services and stress management workshops.

McIntyre, Worsley and Corcoran (2018) cross-sectional study examined the predictors of psychological distress among primary and secondary school teachers in the UK. The study surveyed 1,200 educators using validated measures, including the Perceived Stress Scale and Depression Anxiety Stress Scales. Results revealed that nearly 50% of teachers experienced moderate to severe psychological distress. Female teachers reported higher stress levels compared to males, driven by factors such as classroom behavioral issues, excessive workloads, and inadequate administrative support. The study further highlighted that novice teachers were particularly vulnerable to stress due to lack of experience and mentorship. Recommendations emphasized structural reforms to address the root causes of stress, including the redistribution of workloads, recruitment of additional teaching staff, and establishment of professional mentoring programs for new teachers. Schools were also encouraged to promote mental health awareness, provide access to counseling, and develop initiatives to support teachers in managing classroom challenges effectively.

Capone and Petrillo (2020) study explored the mental health status of high school teachers in Italy, with a specific focus on stress, job satisfaction, and depression. Using a cross-sectional design, data were collected from 400 teachers through the Maslach Inventory and the Depression Scale. Results indicated that 30% of participants experienced stress, characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. Additionally, depression was prevalent among 25% of teachers, exacerbated by dissatisfaction with work conditions, low salaries, and lack of professional growth opportunities. The study emphasized the critical role of

job resources, such as supportive leadership, manageable workloads, and teacher autonomy, in mitigating psychological distress. It recommended that educational institutions prioritize teacher well-being by fostering a positive work environment, offering professional development programs, and enhancing career growth opportunities. These measures were deemed essential to prevent stress and ensure the long-term sustainability of the teaching profession.

Hasan and Bao (2020) mixed-methods study investigated the psychological effects of transitioning to online education among college educators and students in China during the COVID-19 pandemic. Surveys were administered to 500 participants, capturing data on stress, fear, and adaptability through validated measures. Findings revealed that the sudden shift to e-learning increased distress levels among educators, primarily due to unfamiliarity with digital platforms, technical issues, and concerns about maintaining student engagement. Stress was particularly high among older educators, who reported difficulty adapting to new teaching technologies. The study highlighted the need for institutional support, including comprehensive e-learning training, provision of technological resources, and peer mentoring programs. Furthermore, it recommended the introduction of mental health services, such as tele-counseling, to address the psychological impacts of the pandemic and support educators in coping with the challenges of remote teaching.

A cross-sectional study by Nahan, Aiswarya, Abin, Sherbin and Jijith (2024) focused on antibiotic misuse in Kozhikode, India, where irrational beliefs about self-medication were widespread. The researchers surveyed 1,200 participants and found that 65% incorrectly believed antibiotics could treat viral infections. These misconceptions were significantly associated with educational levels and media influence. The study concluded that widespread public education

campaigns were critical to reducing the misuse of antibiotics and curbing antimicrobial resistance, emphasizing the need for improved health literacy.

Turner and Davis (2018) investigated irrational beliefs among pre-service teachers and evaluated the effectiveness of rational-emotive behavior therapy (REBT) as an intervention. The study employed a quasi-experimental design involving 100 trainee teachers randomly assigned to either an intervention or control group. Over eight weeks, the intervention group underwent REBT sessions designed to challenge core irrational beliefs, such as catastrophic thinking and demands for perfection. Pre- and post-tests using a belief inventory and self-efficacy scales showed a significant reduction (35%) in irrational beliefs in the intervention group. The study also highlighted improvements in self-regulation and classroom management skills among participants exposed to REBT. Turner and Davis argued that irrational beliefs impair teachers' confidence and decision-making under stress, proposing the integration of REBT workshops into teacher education programs to prepare educators for diverse, real-world challenges. The authors further recommended longitudinal studies to assess the lasting impact of such cognitive restructuring interventions.

Patel and Banerjee (2022) investigated the prevalence of irrational thinking patterns among elementary school teachers and their influence on instructional decision-making and classroom management. Using a cross-sectional survey design, they collected data from 300 teachers and analyzed the prevalence of cognitive distortions using standardized measures. The study found that irrational beliefs such as catastrophizing, rigid thinking, and black-and-white perspectives were common among teachers. These beliefs were linked to lower instructional quality and a tendency to resort to punitive measures when faced with challenges in the classroom. Teachers who exhibited higher levels of irrational beliefs also demonstrated reduced self-efficacy in

decision-making. The researchers recommended the incorporation of emotional intelligence training into professional development programs and the establishment of institutional policies aimed at promoting the psychological well-being of educators.

Irfan, Khan, Zahid, Abid and Faqir (2024) explored the interplay between spirituality and superstition in Pakistani adults. Qualitative interviews revealed that 68% of participants associated spiritual practices with superstitious beliefs, often attributing life events to supernatural forces. The findings pointed to the need for educational interventions to foster critical thinking, enabling individuals to discern spirituality from unfounded superstitions and make rational decisions.

Chen and Li (2021) examined the role of irrational beliefs in contributing to classroom stress and job dissatisfaction among secondary school teachers. This quantitative study involved 200 teachers who completed standardized questionnaires measuring stress, job satisfaction, and irrational beliefs. The study revealed that beliefs tied to self-worth, fear of failure, and unrealistic expectations of student behavior were highly prevalent among teachers. These beliefs were significantly correlated with higher levels of stress and lower job satisfaction. Teachers who believed they needed to be perfect or universally liked were found to be at greater risk of stress. The authors recommended school-based interventions that focus on stress reduction and cognitive restructuring to help teachers modify these irrational beliefs. They also emphasized the importance of creating supportive work environments that encourage collaboration and reduce stigma around seeking psychological help.

González-Tovar, Sanabria-Camacho and Hernández-Montaño (2024) investigated dietary practices in adolescent women, focusing on irrational beliefs about food. The study sampled 800 participants and found that 45% engaged in harmful dieting behaviors due to distorted beliefs

about body image and food consumption. These beliefs were strongly linked to media influence and peer pressure. The authors emphasized the importance of educational initiatives to promote healthier attitudes toward nutrition and self-image among adolescents.

Gonzalez and White (2019) conducted a longitudinal study examining the relationship between teachers' irrational beliefs and stress. Over a three-year period, the researchers tracked 150 teachers, collecting data through annual surveys that assessed stress symptoms, coping mechanisms, and cognitive distortions. The findings revealed that irrational beliefs related to demandingness and low frustration tolerance were strong predictors of emotional exhaustion and depersonalization, which are key components of teacher stress. Teachers with higher levels of irrational beliefs reported feelings of detachment from students and declining job satisfaction over time. To address these issues, the researchers recommended regular psychological assessments for teachers and the integration of cognitive-behavioral strategies into professional development programs. They also emphasized the need for systemic changes in school policies to reduce teachers' workload and provide emotional support to mitigate stress.

Capparelli, Iacovantuono, Cristiano, Triggianese, Conigliaro, Greco and Chimenti (2024) explored movement-avoidance behavior in osteoporotic patients. A survey of 400 individuals found that 62% avoided physical activity due to irrational fears of fractures. These beliefs, rooted in misunderstandings about osteoporosis, contributed to inactivity and diminished quality of life. The study recommended patient education programs to dispel myths and encourage safe physical activity as part of comprehensive care.

Onyewuotu et al. (2024) investigated the influence of irrational beliefs on students' academic performance in Nigeria. Using a survey of 500 students, the study identified that 58% held beliefs that intelligence was fixed, attributing academic failure to inherent incapabilities rather

than effort. The findings underscored the detrimental effects of such beliefs on motivation and performance. The researchers advocated for integrating cognitive restructuring programs into educational curricula to challenge these maladaptive thought patterns and enhance learning outcomes.

Zupan et al. (2024) examined intentional non-adherence to medical advice in Serbia. A national survey revealed that 48% of respondents avoided prescribed treatments due to distrust in medical institutions and irrational health beliefs. The study linked non-adherence to negative health outcomes and advocated for improved communication between healthcare providers and patients to build trust and reduce the prevalence of such beliefs.

Ahmed and Khurana (2023) examined the role of irrational beliefs in influencing classroom management strategies among middle school teachers in urban areas. The study aimed to assess how prevalent these beliefs were and their effects on teachers' ability to maintain a positive classroom environment. A survey design was employed, involving 250 middle school teachers who completed an irrational belief inventory alongside a classroom management effectiveness scale. The findings revealed that over 60% of teachers exhibited irrational beliefs, particularly concerning the need for perfection in their teaching methods and expectations of immediate compliance from students. These beliefs led to increased frustration and the adoption of authoritarian teaching styles, which negatively impacted the classroom atmosphere. The authors recommended integrating stress management programs into teacher training to help educators recognize and overcome their irrational beliefs. Additionally, they suggested the introduction of mindfulness-based interventions to promote reflective teaching practices.

Jones and Carter (2022) conducted a mixed-method study exploring the prevalence and impact of irrational beliefs among teachers in inclusive classrooms. The study aimed to understand how

irrational beliefs affected teachers' attitudes toward students with special educational needs. Quantitative data were collected through surveys administered to 180 teachers, and qualitative insights were gained from focus group discussions. The study found that teachers with higher levels of irrational beliefs, particularly beliefs about their inability to handle challenges effectively, reported greater anxiety and reluctance to engage with inclusive practices. These findings highlighted the detrimental effect of cognitive distortions on teachers' ability to foster an inclusive learning environment. The researchers recommended targeted professional development programs focused on cognitive restructuring and emotional intelligence training to help teachers develop a more positive and proactive approach to inclusion.

Silva and Mendes (2021) examined the relationship between irrational beliefs and teacher stress in primary schools. Their study aimed to assess whether cognitive distortions contributed to emotional exhaustion, depersonalization, and reduced personal accomplishment. Using a cross-sectional design, 220 teachers completed measures of irrational beliefs and stress. The findings revealed a strong association between irrational beliefs, such as catastrophic thinking and low frustration tolerance, and higher levels of stress. Teachers who exhibited these beliefs were more likely to feel emotionally drained and disengaged from their professional responsibilities. The authors emphasized the importance of psychological support programs in schools, recommending that administrators offer workshops on stress management and provide access to mental health services to address the root causes of stress among teachers.

Lee and Kim (2020) explored the role of irrational beliefs in shaping the attitudes and behaviors of high school teachers during periods of curriculum reform. The study aimed to determine how cognitive distortions influenced teachers' adaptability and openness to change. A longitudinal design was employed, with 150 teachers completing surveys over two years. The findings

showed that teachers who held irrational beliefs, such as an overemphasis on maintaining control and fear of failure, were less likely to embrace curriculum changes and more likely to resist innovative teaching methods. These beliefs also correlated with heightened stress levels and decreased job satisfaction. The researchers suggested that curriculum reform initiatives include training sessions on adaptive thinking and resilience-building to help teachers overcome cognitive barriers to change.

Brown and Smith (2019) investigated the prevalence of irrational beliefs among secondary school teachers and their impact on teacher-student relationships. The purpose of the study was to explore how these beliefs influenced teachers' perceptions of students' behavior and academic potential. The researchers conducted a qualitative study, analyzing interviews with 50 teachers. The results indicated that teachers with strong irrational beliefs about students' capabilities and behavior often misinterpreted classroom challenges as personal failures, leading to strained relationships with students. These teachers were also more likely to exhibit punitive behaviors and less likely to employ supportive teaching strategies. The authors recommended implementing peer-mentoring programs to help teachers challenge negative beliefs and adopt more constructive perspectives on classroom challenges.

2.3.3 Relationship between Levels of Irrational beliefs and Psychological Distress

In a study done in Britain, Turner (2018) surveyed a group of recreational and semi-professional athletes to examine the reliability and validity of the irrational performance beliefs inventory (iPBI). The iPBI and demographic questions were completed at a single time point by 550 athletes (312 males and 212 women; Mage = 38.04 13.80 years). The 28-item iPBI had a fit index in confirmation that was below the threshold for acceptability (comparative fit index [CFI] = 0.84). A 20-item version (iPBI-2) was created (CFI = 0.91) after potentially problematic items were

eliminated. According to the findings, amateur athletes scored higher on fundamental irrational beliefs and low frustration tolerance than semi-professional athletes, but lower on depreciation.

Turner (2019) investigated the role of maladaptive schemas in the connection between irrational beliefs and emotional suffering among athletes in the United Kingdom. Triathletes (n = 124), decathletes (n = 9), swimmers (7), bikers (17), and runners (57) were all volunteers for the study. The PROCESS macro was used to examine simple mediation models in a cross-sectional study using a single time point. The research found that the link between irrational beliefs and psychological discomfort (anxiety and depression) was totally mediated by maladaptive schemas.

Stebbins (2015) looked into the link between irrational schematic beliefs and psychological discomfort in Australia. Caretakers of people with traumatic brain injury (TBI) were the focus of the study. A mail-in cross-sectional survey was used for the research. One hundred sixteen carers of people with TBI who were members of community support groups and brain injury organisations in the Australian states of Victoria and Queensland took part in the study. Measures of injury severity and the extent to which a TBI patient's personality and conduct have changed were also used in this research. Greater adherence to irrational beliefs was connected to higher levels of global psychological distress, according to hierarchical regression models, even after allowing for the impact of characteristics of the caregiving scenario and the individual with TBI. In particular, all types of mental anguish were linked to illogical worrying beliefs.

Santarpia et al. (2023) conducted a study examining the relationship between irrational beliefs and workplace well-being, focusing on secondary irrational beliefs such as self-depreciation, low frustration tolerance, and awfulizing. Data were collected from 3576 employees working in four business and consulting companies in Italy. The results showed that awfulizing and the general irrationality component were adversely correlated with well-being, with the fulfillment of

reduced performance expectations acting as a mediating factor. This suggests that irrational beliefs contribute to internalizing issues, including stress, anxiety, and depression. The study contributes to the irrational beliefs literature by delineating their common and unique associations with workplace well-being.

Popov, Popov, and Damjanović (2015) conducted a study to explore the relationship between sources of workplace stress, specific irrational beliefs, and levels of psychological distress among teachers in Serbia. Drawing on the Rational Emotive Behavior Therapy framework, which has been previously utilized in educational settings to develop intervention strategies for reducing teacher stress, the study aimed to elucidate the factors contributing to stress in teachers. The study included 186 instructors from Zrenjanin and Sombor who were convenience sampled and had an average age of 40. They finished the Depression, Anxiety, and Stress Scale, the Teacher Irrational Belief Scale, and the Sources of Work Stress Scale. Structural equation modeling was employed for data analysis. The study revealed that both stressors and irrational beliefs directly impacted general stress among teachers. Additionally, irrational beliefs partially mediated the relationship between stressors and stress symptoms.

Mahfar (2018) conducted a study in Malaysia focusing on teacher stress and its association with irrational beliefs, aiming to investigate the mediating role of irrational beliefs between activating events and stress among teachers. The research collected data from 201 teachers in seven Malaysian Fully Residential Schools using stratified random sampling. Utilizing the Teacher Irrational Beliefs, Teacher Activating Event, and Teacher Stress questionnaires, the study measured the levels of irrational beliefs, activating events, and stress experienced by teachers. Correlation analysis revealed positive relationships among the variables, while regression analysis demonstrated that irrational beliefs mediated the relationship between activating events

and stress among FRS teachers. The study underscores the significance of irrational beliefs as important determinants of emotional distress among teachers.

Tanhan (2014) investigated what influences elementary and secondary school teachers in Turkey to hold irrational ideas. The study employed a descriptive survey research approach, with 370 randomly selected teachers from the province of Van in eastern Turkey serving as the study's sample. Study findings showed that whereas 87.3% of participants held rational opinions, 12.7% held irrational ones. Depressive symptoms, work satisfaction, and years of experience were revealed to be the strongest predictors of teachers' rational and illogical opinions.

Zeb and Khan (2024) conducted a study to investigate how irrational beliefs contribute to psychological distress, situating their research within the cognitive-behavioral paradigm. The study involved 300 participants who were assessed using validated measures of irrational beliefs and psychological distress. Using regression analysis, the researchers found that individuals with higher levels of irrational beliefs, particularly those tied to catastrophizing and low frustration tolerance, experienced significantly elevated levels of psychological distress. These maladaptive thought patterns perpetuated cycles of anxiety and depression, emphasizing the role of irrational beliefs in exacerbating mental health struggles. The study underscored the importance of integrating cognitive restructuring techniques into therapeutic interventions to help individuals identify and challenge these harmful beliefs. Furthermore, it advocated for broader adoption of cognitive-behavioral therapy (CBT) in mental health services to address distress effectively.

Duru and Balkis (2023) examined the moderating role of irrational beliefs in the relationship between childhood emotional maltreatment and adult psychological distress symptoms. This study focused on uncovering the long-term impacts of childhood experiences through the lens of cognitive distortions. A sample of 250 adults was assessed using retrospective self-report

measures of childhood maltreatment and current psychological distress. Mediation analysis revealed that irrational beliefs amplified the psychological impact of childhood maltreatment, resulting in heightened anxiety, depression, and stress symptoms in adulthood. In contrast, rational beliefs served as a protective factor, buffering individuals against these adverse effects. The researchers highlighted the need for early interventions to prevent the development of irrational beliefs in maltreated children. They also emphasized the importance of therapeutic strategies focused on modifying these beliefs to foster resilience and improve mental health outcomes in adults.

Chadha (2024) explored the relationship between gender differences, irrational beliefs, and psychological distress. The study aimed to understand how cognitive distortions contribute to stress and anxiety across genders. Using a cross-sectional design, the research assessed 400 participants (equally divided by gender) on standardized measures of irrational beliefs and psychological distress. The results indicated that women were more likely to exhibit irrational beliefs related to perfectionism and self-worth, which significantly contributed to higher levels of psychological distress. Men, on the other hand, displayed lower levels of irrational beliefs but were more prone to experiencing distress tied to work-related stressors. The study's findings highlighted the importance of developing gender-sensitive mental health interventions. Programs should be tailored to address the unique cognitive vulnerabilities of each gender, with an emphasis on promoting healthier belief systems and effective coping mechanisms.

Delavarpour and Milani (2024) focused on the relationship between irrational beliefs, psychological distress, and academic procrastination among university students. Their study aimed to understand how distress mediates the link between irrational beliefs and procrastination behaviors. A sample of 200 students completed measures assessing their cognitive distortions,

levels of distress, and procrastination tendencies. Path analysis revealed that psychological distress fully mediated the relationship between irrational beliefs and procrastination. Students who exhibited beliefs such as fear of failure and an excessive need for approval were more likely to experience distress, which in turn led to procrastination. The researchers recommended targeted interventions within academic settings, such as stress management programs and training in cognitive and emotional regulation skills, to reduce the prevalence of these maladaptive behaviors.

Salehi and Khezeli (2024) investigated the impact of irrational beliefs on psychological distress among caregivers, with a particular focus on emotional stress. This study sought to identify which irrational beliefs contributed most to caregivers' stress. A sample of 150 caregivers was assessed using measures of irrational beliefs, distress, and stress. Structural equation modeling revealed that beliefs tied to self-worth and low frustration tolerance were significant predictors of emotional stress. Caregivers with these cognitive distortions reported higher levels of exhaustion and anxiety, which hindered their ability to cope with caregiving responsibilities. The study emphasized the need to provide caregivers with access to CBT-based support programs to address their irrational beliefs and improve their psychological well-being. Additionally, the researchers advocated for systemic reforms to provide greater emotional and financial support for caregivers, reducing the burden of their roles.

Duru and Balkis (2020) explored the moderating effects of irrational and rational beliefs on the relationship between childhood emotional maltreatment and psychological distress in adulthood. Using a sample of 246 adult participants, data were collected through structured interviews and standardized psychological scales. The study utilized a cross-sectional design with multivariate analysis to assess the relationships. Results demonstrated that individuals with higher levels of

irrational beliefs exhibited significantly greater psychological distress when exposed to childhood emotional maltreatment. On the contrary, rational beliefs acted as a buffer, reducing distress levels and fostering emotional resilience. This underscores the critical role of belief systems in mediating the long-term psychological effects of adverse childhood experiences. The authors recommended cognitive-behavioral interventions aimed at identifying and restructuring irrational beliefs, particularly for those with a history of maltreatment. Further, they emphasized the need for preventive strategies in early childhood education to nurture rational belief systems and resilience.

Delavarpour and Milani (2020) examined how irrational beliefs influence psychological distress and academic procrastination among university students. A sample of 300 students was assessed using validated questionnaires measuring irrational beliefs, psychological well-being, and academic procrastination. The study used a correlational design and path analysis to explore the direct and indirect relationships. The findings revealed that students with a high prevalence of irrational beliefs reported significantly higher psychological distress, which in turn predicted academic procrastination. The authors highlighted that irrational beliefs—such as perfectionism and catastrophizing—acted as mediators between distress and procrastination. Implications of the study suggested that university counseling services should incorporate cognitive-behavioral techniques to address irrational beliefs, improve well-being, and reduce procrastination. The study further recommended integrating psychoeducational workshops to help students develop rational thinking patterns and resilience against academic pressures.

Salehi and Khezeli (2019) investigated the mediating role of ego functioning in the relationship between irrational beliefs and anxiety. A mixed-method approach was employed, involving 198 participants who completed standardized assessments of irrational beliefs, ego functioning, and

anxiety levels. The study used structural equation modeling to analyze the data. Results indicated that individuals with higher levels of irrational beliefs exhibited weakened ego functioning, which led to elevated anxiety and psychological distress. The findings highlighted that irrational beliefs, such as demandingness and low frustration tolerance, disrupted ego processes, thereby reducing individuals' capacity to cope with stress effectively. The study emphasized the importance of therapeutic interventions targeting irrational beliefs to strengthen ego resilience and mitigate anxiety. The authors recommended cognitive-behavioral therapy (CBT) as a primary intervention, alongside psychoeducation to enhance self-awareness and coping mechanisms in individuals prone to irrational thinking.

Chadha (2018) examined gender differences in the relationship between irrational beliefs and psychological distress. Using a sample of 400 participants (200 male and 200 female), researchers administered self-report measures assessing irrational beliefs and psychological distress levels. The study utilized ANOVA and regression analyses to explore the data. Results showed that while irrational beliefs significantly predicted psychological distress across genders, women reported higher distress levels associated with irrational beliefs, such as dependency and approval-seeking. The authors argued that societal expectations and gender-specific stressors might exacerbate these irrational beliefs in women. The study recommended gender-sensitive therapeutic approaches, such as incorporating feminist perspectives into cognitive-behavioral therapy, to address irrational beliefs more effectively. The findings also emphasized the importance of promoting rational thinking patterns and emotional regulation skills through educational initiatives and public health programs.

Khan and Zeb (2017) investigated the role of irrational beliefs in emotional dysregulation and psychological distress. A total of 150 adults participated in the study, which used experimental

and self-report methodologies to examine the relationship. Results revealed that individuals with rigid and irrational beliefs, such as absolutistic thinking and catastrophizing, were more likely to experience heightened emotional dysregulation and psychological distress. The study proposed that such individuals tend to misinterpret events, leading to exaggerated emotional reactions and persistent distress. The authors emphasized the role of CBT in addressing these maladaptive beliefs, with a specific focus on emotional regulation training. Practical implications included designing early interventions in educational and workplace settings to promote rational thinking and reduce the long-term impact of distress. The study further recommended longitudinal research to explore the causal pathways between irrational beliefs and emotional dysregulation.

Turner (2017) conducted a study that compared the effects of non-sport participants, recreational sport participants, and elite athletes on their own illogical beliefs and levels of psychological discomfort. This research also compared the levels of irrational belief and psychological distress among females and males, between the three sport participation groups, and between individual and team sport players. The data showed that the links between primary irrational beliefs and emotional anguish were mediated by secondary irrational beliefs. Analyses comparing the two groups found that elite athletes showed the least amount of depreciating illogical beliefs and that female elite athletes reported more signs of despair than their male counterparts. Research and practical applications of the findings are explored.

Otean (2017) did research to determine the nature and extent to which irrational beliefs contribute to emotional suffering. Twenty-six research met the study's requirements. Several variables' potential to act as moderators were investigated, and effect sizes were calculated using a random-effects model. Overall, the correlation between irrational beliefs and emotional anguish was moderately

negative (r = 0.31). Unconditional acceptance beliefs were shown to have the strongest correlation (r = 0.41).

Irrational beliefs and psychological distress were the subject of a 2016 meta-analysis by Visla. Using a random-effects model, a meta-analysis of 83 main studies and 100 independent samples was conducted to investigate the connection between illogical beliefs and emotional distress. The following factors were analyzed for their potential to moderate the relationship between irrational beliefs and psychological distress: (a) distress measure, (b) irrational belief measure, (c) irrational belief type, (d) method of distress assessment, (e) nature of irrational beliefs, (f) time lag between irrational beliefs and distress assessment, (g) nature of stressful events, (h) sample characteristics (i.e. age, gender, income). Irrational beliefs were found to have a positive correlation with a number of other forms of emotional suffering, including the aforementioned universal discomfort (r = 0.38) as well as anxiety, sadness, wrath, and guilt. Illogical belief measure and kind, stressful event, age, educational and clinical status, and author's standing as a developer/validator were all found to significantly moderate the link between illogical belief intensity and discomfort. After accounting for a number of confounding factors, the study found a moderate correlation between illogical beliefs and emotional distress.

Umija, Aloka, and Wachianga (2021) conducted a study to investigate the relationship between irrational beliefs and stress levels among double-orphaned students in public secondary schools in Kenya. Adopting the Rational Emotive Behavior Theory as the theoretical framework, the researchers employed a cross-sectional correlation research design. A sample of 350 double-orphaned students was selected from secondary schools using stratified and simple random sampling techniques. Data were collected using the Irrational Belief Inventory and the Perceived Stress Scale. The study found weak positive correlations between demandingness, awfulizing,

irrational belief for low frustration tolerance, irrational belief of worthlessness, and stress levels among orphaned students. These results imply that the illogical ideas held by orphaned learners lead to increased stress. Researchers suggested that in order to assist orphaned pupils in refuting their illogical views, school counselors could use therapeutic strategies including positive self-talk.

The literature reviewed in this section provides key insights into the relationship between irrational beliefs and psychological distress among teachers. Mahfar (2018) demonstrated the mediating role of irrational beliefs in the relationship between activating events and stress among teachers. Popov et al. (2015) explored the specific irrational beliefs contributing to general stress among teachers in Serbia. Santarpia et al. (2023) expanded our understanding by examining common and unique associations between irrational beliefs and well-being in the workplace. Additionally, Umija et al. (2021) shed light on the relationship between irrational beliefs and stress levels among orphaned students in Kenya. Despite these contributions, there remains a gap in the literature regarding the specific impact of irrational beliefs on psychological distress among teachers in Kenya, which the current study sought to address. Furthermore, the existing studies primarily focus on general populations or specific subgroups, neglecting the unique context of teachers and the challenges they face in educational settings. Therefore, further research was warranted to establish the relationship between irrational beliefs and psychological distress among teachers in Kenya, ultimately informing targeted interventions to support teacher well-being.

2.3.4 Effectiveness of Cognitive Restructuring in Reducing Irrational Beliefs

Komasi, Saeidi, Zakiei, Amiri and Soltani (2017) investigated the use of metaphor therapy within cognitive restructuring to reduce irrational beliefs among individuals undergoing

buprenorphine treatment for opioid addiction. The randomized controlled trial involved 60 participants divided into experimental and control groups. The intervention group received metaphor-based CR sessions designed to help participants symbolically understand and alter deeply ingrained irrational beliefs. Using pre- and post-treatment assessments, the study found that the intervention group exhibited a significant reduction in irrational beliefs compared to controls. The study highlighted the unique value of metaphors in facilitating cognitive change, especially among populations resistant to traditional CR methods. Recommendations included integrating metaphorical strategies into substance abuse treatment programs to enhance engagement and efficacy.

Ezegbe, Ede, Eseadi and Nwaubani (2018) explored the synergistic effects of combining music therapy with cognitive restructuring therapy to reduce irrational beliefs in married couples facing significant marital challenges. The sample consisted of 120 Nigerian couples randomly assigned to combined therapy, individual therapy (CR or music therapy), and a control group. The intervention lasted for eight weeks, and outcomes were assessed through pre- and post-intervention measures. Findings showed that the combined therapy group experienced a 65% reduction in irrational beliefs, significantly outperforming the individual therapy groups. Music therapy provided emotional relief, enhancing the receptiveness to CR interventions targeting irrational beliefs. The researchers concluded that integrating creative modalities such as music into CR could amplify therapeutic outcomes and recommended its broader adoption in marriage counseling.

Artiran, Şimşek and Turner (2019) examined the mediating effects of rumination and reflection on the relationship between irrational beliefs and psychological distress. The study used a correlational design, sampling 250 participants with diverse psychological profiles. Structural

equation modeling revealed that rumination amplified the negative effects of irrational beliefs on distress, while reflection moderated these effects by promoting adaptive cognitive processing. These findings suggested that CR interventions should not only target irrational beliefs but also address rumination to prevent exacerbating distress. Reflection, on the other hand, could be cultivated as a protective factor. Implications included the importance of teaching clients cognitive processing skills alongside CR to optimize therapeutic outcomes.

David, Cardoș and Matu (2019) assessed the efficacy of the REThink therapeutic game in reducing irrational beliefs in children and adolescents. The longitudinal study involved 200 participants aged 8 to 16 and used CR principles embedded in an interactive game format to challenge irrational beliefs. Results showed significant reductions in psychological distress and irrational beliefs, sustained six months post-intervention. The study demonstrated the potential of gamified CR interventions to engage younger populations effectively and recommended their broader application in clinical and educational settings.

Irrational beliefs are a central notion in Rational Emotive Behavior Therapy (REBT), and Tiba (2010) discussed how the grounded cognition theory might be used to address these types of cognitive vulnerabilities that are thought to underlie emotional disorders. Interactions between language representations and simulations in motivational and emotional brain processing circuits are thought to be the cause of irrational beliefs, which are anchored in emotional knowledge structures. It is hypothesized that the online processing of activating events is skewed by distorted simulations of irrational beliefs (such as demandingness) stored in the brain's motivational and emotional processing circuits. Emotional distress is the result of skewed perception. Irrational beliefs are broken down into three distinct categories. Analysis of the effect of irrational ideas on feelings can be conducted on several different levels, including that of

words or other linguistic symbols, that of simulations and modal symbols, and that of the connections between words and modal symbols. At each stage, we examine the maladaptive mechanisms at play and the cognitive therapies that have been proposed to remedy them. We find that a grounded perspective on irrational beliefs enhances the explanatory power of the REBT theory of emotions.

Komasi (2016) in Iran, who hoped to learn how well it worked in helping drug users on buprenorphine to modify their erroneous ideas and reorganize their thoughts, investigated individual metaphor therapy (IMT). The study used a randomized controlled trial, with 100 drug users selected using single-stage cluster sampling after being referred to methadone and buprenorphine maintenance treatment centers in the city of Kermanshah, Iran, between July and September 2014. After initially enrolling 56 patients (only 37 remained at the end), those who did not match the inclusion criteria were removed from the trial. The SCID-I and Jones' Irrational Beliefs tests were utilized as evaluation tools. The intervention for the study's test group was IMT, delivered over the course of ten sessions (once a week). Cognitive restructuring was performed as usual for the placebo group. Multivariate analysis of covariance (MANCOVA) was utilized for the data analysis. A statistically significant effect of IMT on reducing irrational beliefs of approval seeking ($P = 0.02$), high self-expectation ($P = 0.01$), frustration reactivity ($P = 0.03$), anxious over concern ($P = 0.02$), and perfectionism ($P = 0.006$) was found after controlling for age and gender.

In Turkey, a study done by Şahin and Türk (2021) focused on examining the impact of a cognitive-behavioral group psycho-education program on psychological resilience, irrational beliefs, and well-being among high school students. The research involved 29 participants, and data collection utilized several scales including the Resilience Scale, the Irrational Beliefs Scale-Adolescent Form, and the Subjective Well-being Scale-High School Form. The study employed

a psycho-education program grounded in cognitive-behavioral principles, administered to the experimental group over 10 sessions conducted weekly, without a control group. Utilizing a 2 × 3 experimental design, post-tests were conducted immediately after the program and follow-up measurements were conducted five months later. Analysis of the data revealed a notable increase in psychological resilience levels and a decrease in irrational belief levels among students who underwent the cognitive-behavioral psycho-education program.

A study done in Iran by Rezaeisharif, Karimi, and Naeim (2021) aimed to "determine the effectiveness of the cognitive reconstruction approach on irrational beliefs and hopelessness among individuals with substance abuse disorder." The researchers selected 80 eligible participants from addiction treatment camps in Ardabil in 2018 using available and random sampling methods, dividing them equally into experimental and control groups. The experimental group underwent an 8-session cognitive reconstruction intervention lasting 90 minutes each, while both groups completed pretest and post-test assessments using the Ahwaz Irrational Beliefs 4-Factor Questionnaire and the Beck Hopelessness Test. The cognitive reconstruction technique dramatically decreased illogical beliefs and despondency among individuals in the experimental group, according to data analysis using analysis of covariance. The researchers came to the conclusion that cognitive reconstruction intervention holds potential for enhancing illogical beliefs and lessening despondency in those suffering from drug addiction disorders.

In a study conducted in Iran by Agahheris, Ezzati, Dousti, and Pallooji (2019), the focus was on examining the effectiveness of cognitive-behavioral intervention in mitigating self-deception and other-deception among women with irrational beliefs. Utilizing a quasi-experimental design with both experimental and control groups, the researchers conducted pre- and post-tests on a sample

of 30 participants, with 15 individuals assigned to each group. The selection of participants was based on a convenient sampling method among volunteer women who met the inclusion-exclusion criteria. Measurement tools included questionnaires on self-deception, other-deception, and irrational beliefs. The findings indicated that cognitive-behavioral intervention led to a reduction in self-deception, other-deception, and irrational beliefs among the participants in the experimental group compared to those in the control group.

Bartucz and David (2019) cross-cultural study aimed to examine how cognitive restructuring influence irrational beliefs at a societal level. The study involved a large sample of participants (N = 1,500) from ten countries with diverse cultural contexts. Employing a quantitative survey design, participants completed measures evaluating four irrational beliefs: demandingness, awfulizing, low frustration tolerance, and self-downing. Results showed that demandingness—a rigid expectation for ideal outcomes—was the most significant predictor of psychological distress across all cultures, followed by self-downing. Interestingly, cultural variations emerged, with some countries exhibiting stronger correlations between specific irrational beliefs and distress. The study highlighted the universal relevance of CR in reducing distress while emphasizing cultural adaptations in its application. It recommended incorporating cultural training into therapist education to ensure culturally sensitive practice.

The literature reviewed above highlights the significant influence of cognitive restructuring on irrational beliefs across various contexts and populations. Studies by Zhijuan et al. (2023), Rezaeisharif et al. (2021), and Tibebu (2019) underscore the efficacy of cognitive restructuring interventions in reducing irrational beliefs and improving psychological well-being among different groups, including students, survivors of domestic violence, and individuals with substance abuse disorder. These findings suggest that cognitive restructuring techniques hold

promise as effective interventions for addressing irrational beliefs and associated psychological distress.

However, despite the wealth of research in this area, there remains a notable gap in the literature concerning the application of cognitive restructuring specifically tailored to the needs of teachers facing work-related stress in Kenya. While studies have examined cognitive restructuring in various populations, there is a scarcity of research focusing on its efficacy among teachers, who often experience unique stressors and challenges in the educational setting. The current study aimed at filling this gap by investigating the influence of cognitive restructuring on irrational beliefs among teachers in Kenya, thereby providing valuable insights into the development of targeted intervention strategies to enhance teacher well-being and job performance.

Furthermore, the reviewed literature indicates a lack of local studies addressing cognitive restructuring and irrational beliefs in the Kenyan context. The study by Adina (2017) conducted in Kenya primarily focuses on different populations and mental health outcomes, overlooking the specific needs of teachers in relation to cognitive restructuring interventions. As such, the current study aimed at contributing to the limited research on this topic within the local context, providing empirical insights into the effectiveness of cognitive restructuring techniques in addressing irrational beliefs among Kenyan teachers. By conducting research in Kenya, we can better understand the cultural and contextual factors influencing the efficacy of cognitive restructuring interventions, thereby informing the development of culturally sensitive and contextually relevant approaches to promoting teacher well-being and job satisfaction.

2.3.5 Effectiveness of Cognitive Restructuring in Reducing Psychological Distress

Seiiedi-Biarag, Mirghafourvand, and Ghanbari-Homayi (2019) conducted a study on the effect of cognitive-behavioral therapy on psychological distress in the mothers of preterm infants. The

scientists argued that women are more vulnerable to developing PTSD, anxiety, and depression after giving birth to a premature baby. The meta-analysis included data from four randomized controlled trials involving 45 mothers of premature births. The meta-analysis showed that the cognitive-behavioral therapy group had a lower mean score for depression than the control group, but the difference was not statistically significant. The cognitive-behavioral therapy group also had considerably reduced mean ratings for PTSD and anxiety. Cognitive restructuring was found to be useful in reducing PTSD and anxiety in moms of preterm newborns.

Nakao, Shirotsuki and Sugaya (2021) conducted a systematic review of literature to evaluate the effectiveness of Cognitive-Behavioral Therapy in managing stress among clinical and general populations, while also exploring recent advancements in CBT techniques. Their search spanning from 1987 to 2021 yielded 345 articles in biopsychosocial medicine, including 154 review articles and 53 clinical trials, with 45 randomized controlled trials. The findings from these trials indicated that CBT demonstrated effectiveness in addressing various mental disorders, physical conditions, and behavioral issues in the short term.

Clark (2018) provided an examination of cognitive restructuring and its application in eliciting symptom alleviation in the US. The researcher critically evaluated empirical research on the efficacy of cognitive restructuring in treating psychological disorders, particularly anxiety and depression, while also discussing evidence for cognitive mediation from various research perspectives. While acknowledging the effectiveness of cognitive restructuring in inducing cognitive change and treating psychological disorders, Clark (2018) noted the lack of evidence demonstrating its superiority over what he referred to as "less cognitive" interventions.

Curtiss, Levine, Ander and Baker (2021) carried out a review to delineate the core components of cognitive-behavioral therapy interventions tailored for various anxiety and related disorders.

They underscored recent advancements in CBT protocols aimed at enhancing treatment efficacy. In their review, CBT emerged as a pivotal, gold-standard intervention for managing anxiety and stress-related disorders, employing specific techniques to target maladaptive thoughts, emotions, and behaviors that perpetuate anxiety. The versatility of CBT was emphasized, as it can serve as a standalone treatment or complement standard medications or innovative interventions like mindfulness. The authors advocate for timely referral to CBT providers for individuals experiencing emotional distress or psychopathology, even if symptoms do not meet diagnostic criteria, to alleviate symptoms and improve daily functioning.

Leung, Chiang, Chui, Mak, and Wong (2019) evaluated effectiveness of a short cognitive behavioral treatment to alleviate the stress experienced by Hong Kong's secondary school teachers. Three to four weeks after the initial measurements, those in the intervention groups reported considerably lower levels of role stress, personal strain, and total work-related stress when compared to the control group. Stress management practices were significantly greater in the intervention groups, and both general stress and dysfunctional thinking were significantly lower in the intervention groups compared to the control groups.

Habigzang, Schneider, Frizzo, and Freitas (2018) the effects of a cognitive-behavioral intervention for women experiencing domestic violence in Brazil. Symptoms of despair, anxiety, and stress were found to decrease noticeably following the intervention. The degrees of happiness with one's life also rose dramatically after the intervention. The results of this research provide credence to the idea that cognitive-behavioral therapy techniques like "cognitive restructuring" are beneficial.

Pan, Ng, Young, and Caroline (2017) conducted research on the effects of group cognitive behavioral intervention on the mental health and post-migration development of university students from mainland China. Following the completion of the cognitive behavioral group intervention,

there was a significant rise in the participants' post-migration growth and good feelings, but a significant drop in their levels of psychological distress, acculturative stress, and negative emotions and thoughts.

Amoke, Ede, Nwokeoma, Onah, Ikechukwu-Ilomuanya, Albi-Oparaocha and Nweze (2020) conducted research in Nigeria to learn how group cognitive-behavioral therapy affected the mental health of pretrial detainees. Thirty-four people waiting for trial in an Enugu state, Nigeria, prison were included in the research. The data was gathered with the help of two instruments; the Perceived Emotional Distress Inventory and the General Health Questionnaire. At Time 2, CBT participants fared much better than their no-intervention peers in terms of their level of psychological distress. Furthermore, in the follow-up measures (Time 3), the positive effects of CBT on the mental distress of prisoners awaiting trial were still evident. Inmates in jail while their cases are pending may benefit from cognitive behavioral treatment, according to these results.

Marasigan (2019) aimed to compare the effectiveness of brief cognitive restructuring (CR) and cognitive defusion (CD) techniques in reducing psychological distress and addressing irrational beliefs. The research used a quasi-experimental design with a sample of 100 participants experiencing psychological distress stemming from pervasive negative thoughts. CR involved identifying and modifying irrational beliefs into rational alternatives, while CD focused on altering the relationship participants had with their thoughts, encouraging detachment rather than elimination. Psychological distress was assessed through self-reported measures and structured interviews. Findings indicated that CR led to a significant reduction in distress by directly targeting and altering irrational thought patterns, while CD was particularly effective in reducing emotional engagement with negative thoughts. The study concluded that CR is more effective for

individuals with deeply ingrained irrational beliefs, while CD may serve as a valuable supplementary tool to enhance emotional regulation. Implications included the need for integrated therapeutic approaches combining CR and CD.

Hu, Zhang, Zhang, Yu and Zhang (2018) evaluated the impact of metaphorical cognitive restructuring on alleviating psychological distress in a randomized controlled trial involving 120 participants. Participants were divided into intervention and control groups, with the intervention group receiving metaphor-based CR sessions designed to improve cognitive reframing skills. Results demonstrated that participants in the intervention group experienced significant reductions in psychological distress and irrational beliefs, with improvements sustained at a three-month follow-up. The study concluded that metaphors can serve as powerful tools for engaging clients in CR processes, particularly when addressing abstract or emotionally charged irrational beliefs.

Turner, Aspin and Gillman (2019) examined the influence of maladaptive schemas as mediators in the relationship between irrational beliefs and psychological distress among athletes. A sample of 200 athletes completed self-report measures assessing irrational beliefs, maladaptive schemas, and distress. Findings revealed that schemas such as perfectionism and emotional inhibition mediated the relationship between irrational beliefs and distress. The study emphasized that addressing both irrational beliefs and underlying schemas in CR interventions is critical for achieving meaningful reductions in distress, particularly in high-stress environments like sports.

David, Cotet, Matu, Mogoase and Stefan (2018) conducted a meta-analysis of 92 studies spanning 50 years of research on rational-emotive and cognitive-behavioral therapy. The analysis focused on the impact of CR in reducing irrational beliefs and psychological distress across diverse clinical and non-clinical populations. Results confirmed the robust efficacy of CR, with

effect sizes ranging from moderate to large. The study emphasized the importance of targeting both irrational and rational beliefs for lasting therapeutic success and called for continued refinement of CR techniques to address emerging psychological challenges.

Oparaduru (2017) explored the effectiveness of cognitive restructuring and self-control strategies in reducing maladaptive behaviors among Nigerian high school students. Using a pretest-posttest control group design, 150 students identified as exhibiting high levels of psychological distress were randomly assigned to CR, self-control, and control groups. The results revealed that the CR group showed the most significant improvements in rational thinking, emotional regulation, and behavioral outcomes. The study highlighted the potential of integrating CR into school counseling programs to address early maladaptive thought patterns and prevent long-term distress.

Padmanabhanunni (2017) did research in South Africa on the transferability of cognitive therapy for the treatment of PTSD in rape survivors. Padmanabhanunni (2017) examined the efficacy of cognitive restructuring on reducing post-traumatic stress disorder (PTSD) in South African rape survivors and found promising results. Self-blame was a typical evaluation among these clients, and the pie chart guided the client well in re-allocating blame through the cognitive restructuring technique.

Sogolo, Aluede and Afen- Akpaida (2022) investigated the efficacy of cognitive restructuring and in alleviating test anxiety among students in public secondary schools in Benin City, Nigeria. Three public secondary schools were chosen for the study, and 354 intact class students from those schools participated in the quasi-experimental pretest-posttest control group design. Eight weeks of cognitive restructuring-focused intervention were given to the experimental groups, and education about drug usage served as a placebo for the control group. Data was collected using

the Test Anxiety Inventory. The results of the study indicated that cognitive restructuring significantly reduced test anxiety scores among secondary school students. The study suggests that school counselors and psychologists could effectively utilize this technique to address test anxiety behaviors.

Idowu (2021) investigated the efficacy of cognitive restructuring counseling techniques in alleviating psychological distress, including anxiety and depression, among women experiencing infertility challenges in Nigeria. Utilizing a quasi-experimental research design, the study involved 24 women undergoing infertility treatment at two medical facilities. Participants were divided into a treatment group receiving cognitive restructuring counseling and a control group. Pre- and post-treatment data were collected using the Beck Anxiety Inventory and Beck Depression Inventory. Results indicated a significant reduction in anxiety and depression scores among participants who received cognitive restructuring counseling compared to those in the control group.

A study conducted by Nozizwe (2024) in South Africa aimed to assess the effectiveness of cognitive-behavioral therapy (CBT) in treating anxiety disorders within low-resource settings. Employing a desk study methodology, existing literature and reports were examined, utilizing secondary data collection to access readily available information from online journals and libraries. The findings suggest that CBT interventions can effectively alleviate anxiety disorders in resource-constrained environments, showing comparable outcomes to those observed in high-resource settings. Culturally sensitive CBT interventions, whether provided by non-specialists or in the form of guided self-help formats, have shown promise in improving anxiety symptoms and improving functional outcomes. This demonstrates that CBT is feasible and scalable for treating anxiety disorders in resource-constrained environments. However, while the study emphasized

the importance of adapting interventions to diverse cultural contexts and resource constraints, there is a gap in research regarding the effectiveness and scalability of such interventions in education setting, particularly among teachers suffering work-related stress.

Tibebu (2019) conducted a study to investigate the efficacy of group cognitive behavioral therapy in alleviating psychological distress among female survivors of domestic violence, utilizing a mixed-method research approach. Sixty participants receiving legal aid support from the Ethiopian Women Lawyers Association in Addis Ababa were randomly assigned to treatment and control groups. The treatment group underwent eight group CBT sessions over three hours, twice weekly, while the control group received no intervention. Pretest and posttest assessments using the Kessler Psychological Distress Scale (K10) revealed a statistically significant decrease in psychological distress among the treatment group but not the control group. Focus group discussions and interviews highlighted the benefits of group CBT in identifying and addressing negative thought patterns instilled by abusive relationships, fostering hope, and building group cohesion.

Murray, Augustinavicius, Kaysen, Rao, and Murray (2018) investigated the impact of stigma on group cognitive processing therapy's ability to relieve psychological distress in victims of sexual assault in the Democratic Republic of the Congo. Six months after treatment ended, the difference between the treatment group and the individual support group had disappeared, but the treated group still reported moderately lower levels of stigma. The beneficial effects of cognitive processing therapy on mental health symptoms and functional impairment were not significantly attenuated by either internalized or externalized stigma. According to the findings survivors of sexual violence can benefit from participating in group cognitive-behavioral treatments.

A study by Dorsey, Lucid, Martin, and Whetten (2020) aimed to assess the effectiveness of trauma-focused cognitive behavioral therapy (TF-CBT) in alleviating posttraumatic stress (PTS) among children in Kenya and Tanzania who had experienced parental death. Conducted as a randomized clinical trial across urban and rural areas of the two countries, 640 children aged 7 to 13 years, with elevated PTS and/or prolonged grief due to parental loss, were enrolled. Results revealed that TF-CBT was more effective than usual care (UC) in reducing PTS, particularly in rural and urban areas of Kenya, both immediately after treatment and at 12-month follow-up. However, in Tanzania, TF-CBT and UC showed comparable outcomes at the 12-month follow-up.

Muthami (2017) conducted research in Kibra sub-County, Nairobi County, Kenya, to examine the efficacy of cognitive behavioral therapy for women who had experienced domestic violence. The study found that women who had experienced domestic abuse benefited greatly from a cognitive behavioral therapy (CBT) approach, which considerably reduced their anxiety and depression. Household income, the number of CBT sessions, educational level, primary school performance, and victims' self-esteem were also found to be connected with CBT's efficacy.

Mattick (2019) conducted a randomized controlled trial of exposure and cognitive restructuring in Sydney, Australia. In a wait-list controlled (WLC) study, 43 social phobics were randomly randomized to exposure (EXP), cognitive restructuring without exposure (CR-alone), or an intervention combining these strategies (COMB). The evaluation of the treatments' integrity revealed that the prescribed procedures were carried out as instructed. Compared to the EXP group, which exhibited reductions in phobia but not attitude assessments, the COMB and CR-alone groups showed statistically significant improvements across the board. When comparing COMB and EXP, two phobia measures, COMB performed better. The post-treatment behavioral approach of the CR-

alone group was lower than that of the EXP and COMB groups, but it improved with time and caught up to the exposure groups by follow-up. Treatment-induced changes in fear of negative evaluation, locus of control, and irrational beliefs were evaluated for their capacity to predict sustained recovery. Improvement was predicted by shifts in these factors. The majority of the variance was explained by the shift in fear of negative evaluation.

The effects of cognitive reorganization via computer on self-esteem as mediated by reason were investigated by Horan (2016). Fifty-six low-confidence adolescents in grades 11 and 12 from the United States were split evenly between a relaxation training control group and a computer-based cognitive restructuring group. Previous study has connected irrational ideas to low self-esteem, thus a computer intervention (replete with multimedia features like color video clips, stereo music, digitized speech, and interesting visuals) was developed to combat this issue. Over the course of the program, participants were tested multiple times; the results of these evaluations informed the program's cognitive restructuring responses, which varied based on the strength of the participant's underlying beliefs. Multivariate and univariate effects on four measures of rationality and self-esteem favored computer-based cognitive restructuring.

Diane (2016) compared the reorganizational and coping aspects of cognitive therapy. Subjects with test anxiety were randomly assigned to one of three groups: (a) a coping treatment, in which they were taught coping self-statements to use in a test situation; (b) a restructuring treatment, in which they were encouraged to discuss their general beliefs about evaluation; or (c) a waiting list control group. Treatment effects were observed on all outcome measures, including those of test anxiety, illogical beliefs, and thoughts immediately prior to the final exam. The coping group enhanced more than the control group, despite the fact that there was no statistically significant distinction between the treated groups on these measures. This suggests that the content of treatment

procedures alone may not be sufficient to predict the change processes that arise from therapy, since the results for the two cognitive measures, which were selected to represent the different goals of the two treatments, did not match the content of treatment.

Kovalski (2015) conducted research in USA into the efficacy of online cognitive restructuring in helping teenage girls overcome their faulty job perceptions. Participants were stratified by race and then randomly allocated to an interactive Internet therapy or a control treatment consisting of computer-based training in a different subject area. Treatment by ethnicity by repeated measures ANOVAs were conducted on the scores of four measures expressing irrational career beliefs and stereotyping. The treatment appeared to be successful for Caucasians but not for minorities, according to a triple interaction on self-stereotyping (consistency between present career choice and career choice "if I were a boy").

Niles (2014) conducted a session-by-session mediation analysis in the United States of America to compare the effectiveness of acceptance and commitment therapy (ACT) with conventional cognitive behavioral therapy (CBT) for social anxiety disorder. Fifty adult outpatients diagnosed with DSM-IV social anxiety disorder were randomly assigned to receive either cognitive behavioral therapy (n = 25) or acceptance and commitment therapy (n = 25) for six months. Significant nonlinear reductions in the suggested mediators were found by multilevel modeling studies for both treatments, with ACT demonstrating a sharper decline than CBT at the start of treatment and CBT demonstrating a steeper decline than ACT at the end of therapy. A steeper decline of the Acceptance and Action Questionnaire at the start of treatment predicts fewer symptoms in ACT, but not in CBT, suggesting that the curvature (or nonlinear effect) of experiential avoidance during treatment significantly mediates posttreatment social anxiety symptoms and anhedonic depression.

Reductions in social anxiety and depression symptoms after therapy were predicted by the quicker drop in negative cognitions at the start of treatment.

In a study done in Nigeria, Yahaya and Tambuwal (2023) investigated the effectiveness of cognitive restructuring counselling techniques in managing chemistry anxiety among senior secondary school students in Tambuwal local government area of Sokoto State. Purposive sampling was used to choose 114 of the 160 students with chemical anxiety for the study. Selected students were assigned to experimental and control groups by the researchers using a quasi-experimental pre-test/post-test factorial design. While the control group received no treatment at all, the experimental groups were given cognitive restructuring counseling techniques. The treatment consisted of eight weeks of counselling sessions conducted in group settings. The results indicated a significant difference in the effect of cognitive restructuring counselling technique on anxiety levels among students with chemistry anxiety. However, there was no significant difference in anxiety levels between the experimental and control groups. The researchers recommended the use of cognitive restructuring treatment by counsellors to alleviate psychological issues such as anxiety.

Eseadi, Ihebuzoaju, Ogbuabor, and Ikechukwu-Ilomuanya (2016) conducted a study on effects of a cognitive restructuring intervention program based on rational-emotive behavior therapy on irrational thoughts and behaviors resulting from adverse childhood stress in Nigeria. The study included 26 participants identified as victims of adverse childhood stress who met inclusion criteria through a self-report questionnaire. Guided by an adverse childhood stress management manual, the intervention spanned 12 weeks followed by 2 weeks of follow-up meetings. The study findings demonstrated a significant reduction in irrational thoughts and actions in the treatment group as a result of the cognitive restructuring intervention program as compared to the

control group. Moreover, substantial improvement was observed in the treatment group at the conclusion of the intervention. The researchers suggest the need for further research in different settings to determine the efficacy of cognitive restructuring interventions.

A study conducted by Adina (2017) aimed at examining the impact of cognitive behavioral therapy on depression, Antiretroviral Therapy (ART) adherence, and HIV stigma among HIV-infected outpatients in Turbo, Uasin Gishu County, Kenya. Employing an experimental pretest/posttest control group design, CBT was administered as the intervention in the experimental group, while the control group received no psychotherapy. The study included 53 participants who completed the intervention, out of an original sample size of 393 HIV-infected adults attending Turbo Sub-County Hospital. Various measures, including the PHQ-9 scale for depression, Patient Adherence Record for ART adherence, and HIV/AIDS-Related Stigma Scale for HIV stigma, were utilized at baseline and two months post-intervention. Data analysis revealed that CBT led to a significant reduction in depression scores. The study concluded that CBT showed promising results in alleviating depression and enhancing medication adherence among HIV-infected individuals attending outpatient clinics in western Kenya.

2.4 Summary of Research Gaps

The literature review on psychological distress among teachers, cognitive restructuring, its influence on irrational beliefs, and the relationship between irrational beliefs and psychological distress provides valuable insights into the levels of psychological distress, therapeutic interventions, and their impact on individuals' well-being across various contexts. Regarding psychological distress among teachers, the reviewed studies highlight widespread concerns globally, emphasizing factors such as job dissatisfaction, stressors, and socio-demographic

variables like age and income. However, gaps exist in understanding the underlying mechanisms driving distress and designing targeted interventions to address teachers' diverse needs effectively.

In the context of cognitive restructuring, the literature demonstrates its effectiveness in reducing psychological distress across diverse populations, including mothers of premature newborns, college students, survivors of trauma, and individuals with social phobia. However, there was a need for further research to explore its long-term effects and optimal delivery methods. Similarly, studies on the influence of cognitive restructuring on irrational beliefs show promising outcomes in challenging cognitive distortions and alleviating psychological distress. Yet, gaps remain in understanding its mechanisms of action and tailoring interventions to specific populations and therapeutic contexts.

On the relationship between irrational beliefs and psychological distress, the reviewed literature underscores the detrimental impact of cognitive distortions on emotional well-being. While interventions like Rational Emotive Behavior Therapy (REBT) have shown efficacy in addressing irrational beliefs and improving psychological resilience, more research was needed to elucidate the causal pathways and develop targeted interventions for at-risk populations. The literature review highlights the urgency of addressing psychological distress across different populations and contexts while emphasizing the need for further research to bridge existing gaps in understanding, intervention, and tailored support for individuals experiencing distress.

2.5 Conceptual Framework

The goal of this study is to establish the effects of cognitive restructuring on psychological distress among secondary school teachers. Figure 2.1 shows the conceptual framework of the study.

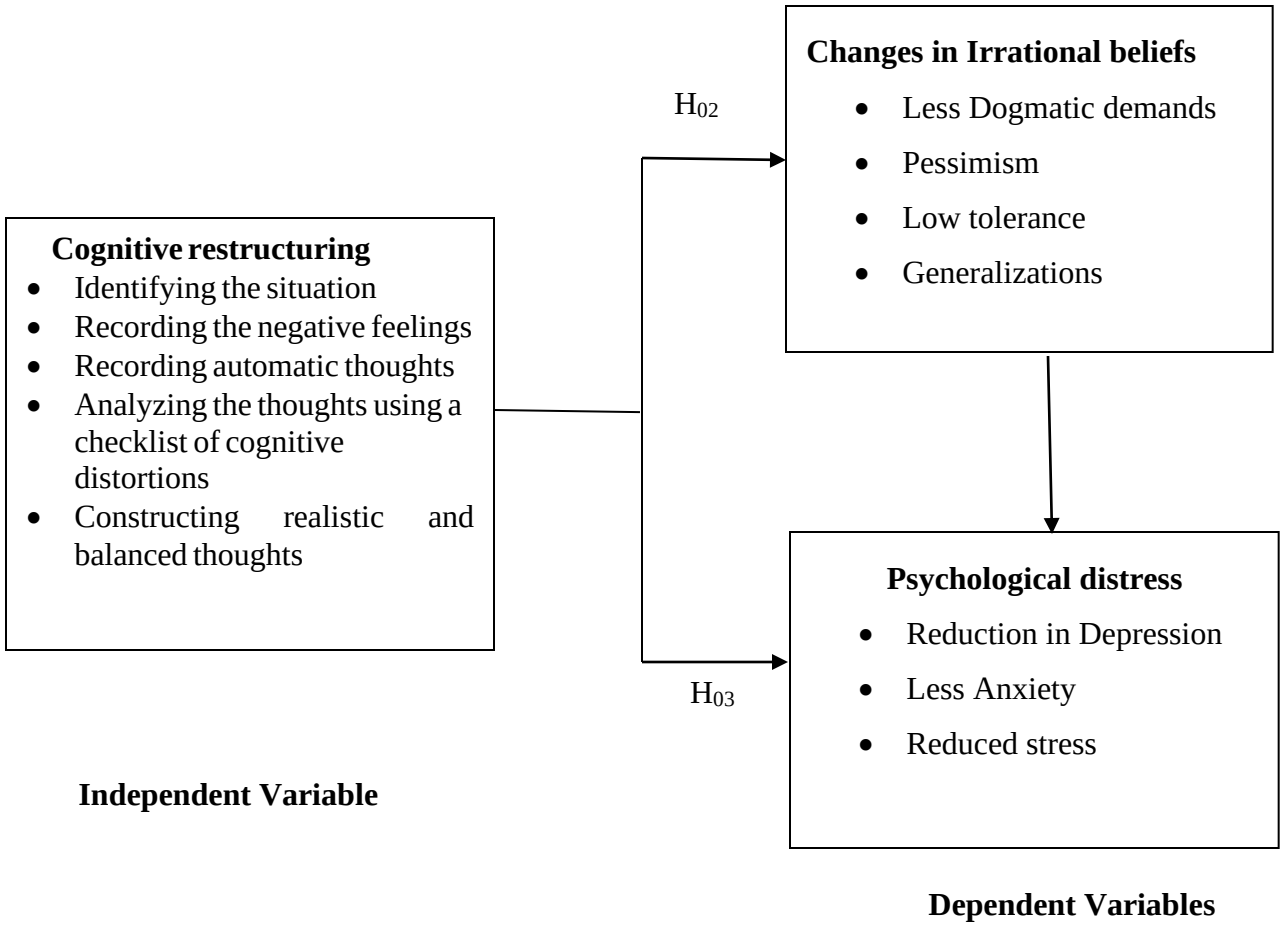

Figure 2.1 Conceptual Framework

Source: Author (2025)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with research design, study variables, site of the study, target population, sampling techniques and sample size, research instruments, pilot study, validity and reliability, data collection procedures, data analysis and presentation. It also presents data management and ethical considerations.

3.2 Research Design

A research design refers to the framework of research methods and techniques chosen by a researcher to conduct a study (Sileyew, 2019). This study employed a quasi-experimental research design, with both the control and treatment groups undertaking two tests: a pre-test and a post-test. A quasi-experimental 2-group research design involves comparing two groups, typically an experimental group that receives an intervention and a control group that does not, with random assignment. Researchers measure the dependent variable both before and after the intervention to assess its impact (Lavrakas, 2008; VandenBos, 2015).

Table 3.1 The 2-group Design

	Pre-test	**Intervention (cognitive restructuring)**	**Post-test**
E1	X	X	X
C1	X		X

3.2.1 Study Variables

Cognitive restructuring served as the independent variable and involved a thorough process. This process began with recognising a specific situation that could be causing distress. Individuals participating in the study were then asked to document any negative feelings they encountered, along with their immediate, automatic thoughts in reaction to the situation. A critical part of this process was a thorough analysis of these thoughts. Participants employed a checklist designed to highlight common cognitive distortions – ways in which our mind deceives us into believing something that isn't true. The final step in cognitive restructuring involved developing more realistic and balanced thoughts, aimed at replacing the negative, distorted ones.

Psychological distress served as the dependent variable, indicated by depression, anxiety, and stress. The demographic characteristics of the participants were also examined, including age, gender, and experience.

3.3 Site of the Study

Kiambu County is one of the 47 counties that make up the Republic of Kenya. It is located in the central region of the country and is known for its unique geographical and demographic characteristics. According to the 2019 Kenya Population and Housing Census, Kiambu County covers an area of approximately 2,543.5 square kilometres, with a significant portion, around 476.3 square kilometres, covered by forests. This extensive forest cover is vital for environmental conservation and plays a crucial role in the ecological balance of the region. The county's geographic location makes it strategically significant, as it shares borders with several other counties: Nairobi and Kajiado to the south, Machakos to the east, Murang’a to the north and northeast, Nyandarua to the northwest, and Nakuru to the west.

Geographically, Kiambu County is positioned between latitudes 00°25′ and 01°20′ south of the Equator and longitudes 36°31′ and 37°15′ east. This location situates the county within a favorable climatic zone, characterized by moderate rainfall and relatively cool temperatures, which are conducive to agricultural activities. The county is known for its fertile lands, and agriculture is a predominant economic activity, with crops such as tea, coffee, and horticultural produce being significant contributors to both local livelihoods and the national economy.

The selection of Kiambu County for the study was influenced by the high levels of distressed teachers within the region. According to Chebet (2018), Kiambu County has reported a significant number of cases involving teachers facing various challenges, notably psychological stress. These challenges include substance addiction, burnout from heavy workloads, emotional exhaustion due to large student-to-teacher ratios, financial strain, and limited support systems. The demanding nature of the teaching profession, coupled with socio-economic pressures and inadequate mental health support, has made educators particularly vulnerable to these issues. As a peri-urban county, Kiambu is characterized by rapid urbanization and population growth, which have exerted pressure on existing resources, including educational infrastructure. This context creates a challenging working environment for teachers, who are often tasked with managing large classes and addressing the diverse needs of their students.

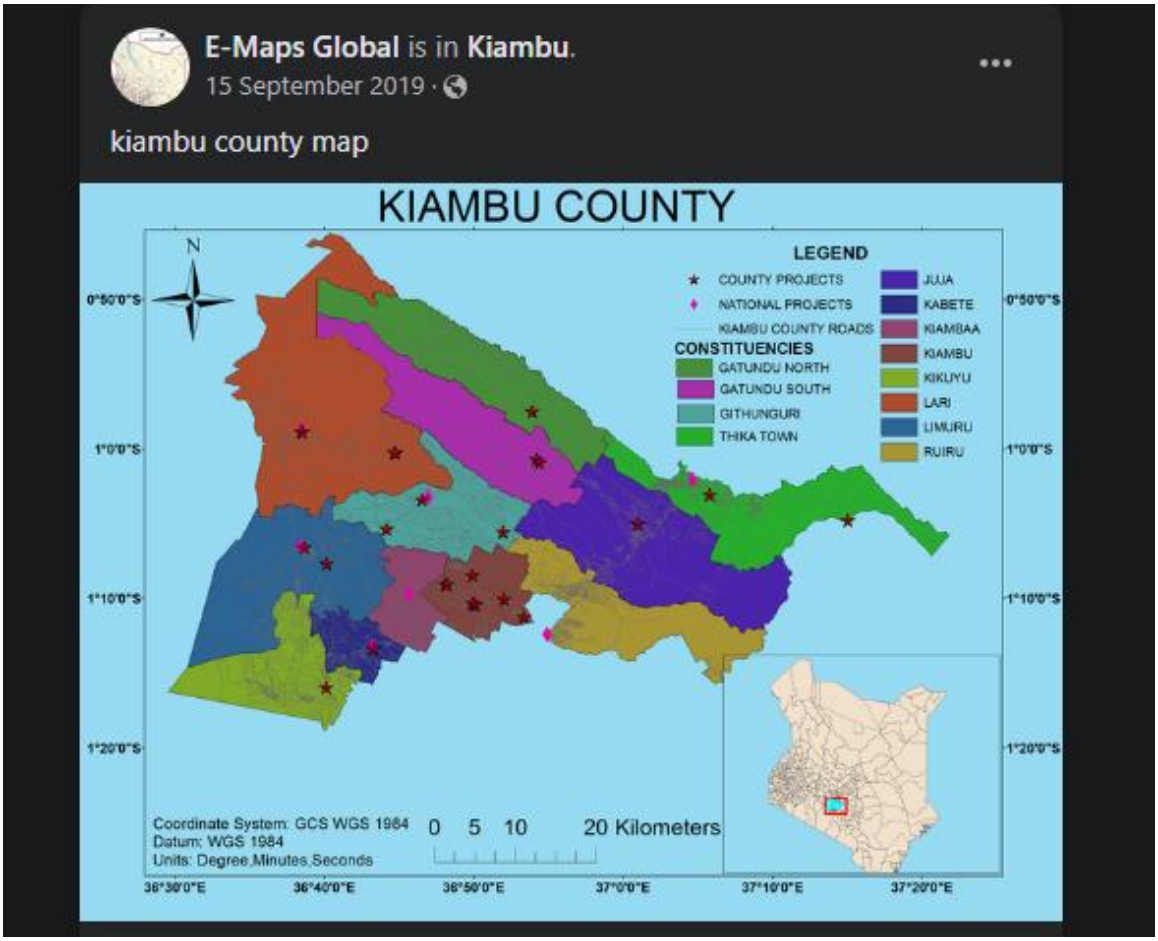

Figure 3.1 Kiambu County

3.4 Target Population

Target population of a study refers to the entire group of people or objects that the researcher intends to generalize the findings of the study (Kothari, 2008). According to Lavrakas (2008), population is the collection or aggregation of the individuals or other elements about which inferences are to be made. This study targeted selected teachers in secondary schools in Kiambu County. Kiambu County has a total of 12 sub-counties which include Gatundu North, Gatundu South, Githunguri, Juja, Kabete, Kiambaa, Kiambu, Kikuyu, Lari, Limuru, Ruiru and Thika Town. The study focused on secondary school teachers in Thika town. Thika Town Sub-County was selected

using the purposive sampling technique because it is more cosmopolitan than the others. Thika town has a total of 20 secondary schools with a total of 638 teachers. This formed the target population.

Table 3.2 Study Population

School	No. of Teachers
Ngoliba Secondary School	15
Ndula Secondary School	20
Thika Girls Karibaribi Secondary School	30
Maryhill Girls High School	110
Karibaribi Secondary School	25
Chania High School	50
Gatuanyaga Mixed Day Secondary School	18
Kimuchu Secondary School	22
Joytown Secondary School	40
Queen of Rosary Mixed Secondary School	16
Thika Garrison Mixed Day Secondary School	22
Magogoni Secondary School	17
Komo Secondary School	15
Chania Girls Secondary School	70
Munyu Mixed Secondary School	10
Munyu Girls High School	25
Kenyatta Secondary School	30
Thika High School	55
St. Paul's Gatuanyaga Secondary School	20
Broadway High School	28
Total	**638**

Source: MOE (2020)

3.5 Sampling Techniques and Sample Size

A sample is a subset of the population (Sekaran & Bougie, 2010). For quantitative research, the larger the sample the better, as this not only gives greater reliability but also enables more sophisticated statistics to be used (Cohen, Manion & Morrison, 2018).

The Fischer formula below was used to calculate the sample size of teachers participating in the study.

n = (ZSquared*P*Q)/ISquared

Where: n= Sample size [where population> 10,000]

Z= Normal deviation at the desired confidence interval. In this case it was taken at 95%, i.e., 1.96

P= Proportion of the population with the desired characteristic. Since the proportion of the population with the characteristic is not known, then 50% was used.

Q = Proportion of the population without the desired characteristic.

I = Degree of precision; was taken to be 10%.

n= (1.96*1.96*0.5*0.5)/0.10*0.10

n=96

Since the population<10,000, the sample size was further adjusted

$$n = \frac{n_o}{1 + \frac{n_o - 1}{N}}$$

n = 96/ (1+((96-1)/638))

n=83

To cater for the non-response, an extra 37 teachers were added to the sample size. The final overall sample size was 120.

n =120

The first stage of sampling involved selecting the schools from which the teachers would be drawn. This process was conducted using a multistage sampling technique, beginning with the selection of Thika Town Sub-County as the study location. The choice of Thika Town Sub-County was based on purposive sampling, as it was deemed more cosmopolitan than other sub-counties in the region. The diversity within this sub-county made it an appropriate location for the study, ensuring that the sample drawn would be representative of teachers from various demographic and socio-economic backgrounds.

In the second stage of sampling, a stratified random sampling technique was used to ensure that the selection of teachers accurately represented the various secondary schools in Thika Town Sub-County. Because each school had a different number of teachers, they were first organised into strata based on their total teacher population. This stratification ensured that schools with a larger teacher population contributed more teachers to the study, while smaller schools contributed proportionally fewer teachers. The allocation of sample sizes for each school was done proportionally, making sure that every school was fairly represented. For example, Maryhill Girls High School, which had a teacher population of 110, contributed 21 teachers, while Chania Girls Secondary School, with a population of 70, contributed 13 teachers. Similarly, smaller schools, such as Munyu Mixed Secondary School, which had only 10 teachers, contributed just 2 teachers to the study.

Once the required number of teachers per school was determined, convenience sampling was used to select teachers from each school. This approach meant that teachers who showed interest

and were willing to participate in the study were given the opportunity to be part of the research. The selection process continued until the required number of teachers from each school was reached. This method was practical because it allowed for the inclusion of teachers who were readily available and motivated to participate, thereby overcoming potential difficulties in random selection, such as teacher unavailability due to work schedules.

Efforts were made to ensure that all public secondary schools were included to capture a broad perspective. Additionally, the selection process involved mixed schools, boys' schools, and girls' schools to guarantee diverse representation. As different schools had varying teacher compositions, care was taken to ensure that the final sample reflected a balanced distribution of respondents.

After successfully selecting 120 teachers, they were randomly assigned into two equal groups. One group, consisting of 60 teachers, was designated as the intervention group (E1), while the other group, also comprising 60 teachers, was assigned to the control group (C1). This random assignment was crucial in ensuring that both groups were comparable in characteristics, thereby enhancing the validity and reliability of the study results.

By utilizing a combination of stratified random sampling at the school level and convenience sampling at the teacher level, the study was able to achieve a balanced and representative sample. This structured yet flexible approach ensured that the selection process was both practical and effective, contributing to the credibility of the research findings.

Table 3.3 Sample Size

School	Population	Sample size
Ngoliba Secondary School	15	3
Ndula Secondary School	20	4
Thika Girls Karibaribi Secondary School	30	6
Maryhill Girls High School	110	21
Karibaribi Secondary School	25	5
Chania High School	50	9
Gatuanyaga Mixed Day Secondary School	18	4
Kimuchu Secondary School	22	4
Joytown Secondary School	40	7
Queen of Rosary Mixed Secondary School	16	3
Thika Garrison Mixed Day Secondary School	22	4
Magogoni Secondary School	17	3
Komo Secondary School	15	3
Chania Girls Secondary School	70	13
Munyu Mixed Secondary School	10	2
Munyu Girls High School	25	5
Kenyatta Secondary School	30	6
Thika High School	55	10
St. Paul's Gatuanyaga Secondary School	20	3
Broadway High School	28	5
Total	**638**	**120**

3.6 Research Instruments

3.6.1 Depression, Anxiety, and Stress Scale - 21 Items (DASS-21)

The Depression, Anxiety, and Stress Scale - 21 Items (DASS-21) is a psychometric instrument designed to measure psychological distress across three dimensions: depression, anxiety, and

stress. It is a self-report tool comprising 21 items divided into three subscales. Each subscale contains seven items that evaluate symptoms within their respective dimensions. This tool provides a quantitative measure of psychological distress rather than categorical diagnoses, making it particularly suitable for research and general population studies instead of clinical diagnosis. Each of the three scales of DASS-21 aims to assess specific dimensions of mental health challenges, providing a comprehensive understanding of an individual's psychological state.

The depression scale in the DASS-21 assesses symptoms like dysphoria, hopelessness, life devaluation, self-deprecation, loss of interest or involvement, anhedonia, and inertia. These symptoms are crucial for identifying depressive tendencies, which may not always reach the threshold for a clinical diagnosis of depression but still indicate significant psychological distress. Conversely, the anxiety scale focuses on physiological responses and psychological experiences linked to anxiety, including autonomic arousal, effects on skeletal muscles, situational anxiety, and subjective feelings of anxious affect. This scale is particularly responsive to the physical manifestations of anxiety, offering insights into how anxiety appears in individuals. Finally, the stress scale aims to identify levels of chronic nonspecific arousal. It gauges difficulties in relaxing, heightened nervous arousal, and being easily upset, agitated, irritable, or impatient. These factors are often linked to prolonged exposure to stress and can provide valuable information about an individual's capability to cope with everyday challenges.

Scoring in the DASS-21 is straightforward. Scores for depression, anxiety, and stress are calculated by summing the responses for each subscale. The results are then classified into one of five severity categories: normal, mild, moderate, severe, and extremely severe. These categories,

which are based on cutoff scores, allow researchers and practitioners to interpret the level of psychological distress in individuals. The cutoff scores for each scale are as follows:

Table 3.4 DASS Cut-off scores

	Depression	Anxiety	Stress
Normal	0 – 4	0 – 3	0 – 7
Mild	5 – 6	4 – 5	8 – 9
Moderate	7 – 10	6 – 7	10 – 12
Severe	11 – 13	8 – 9	13 – 16
Extremely Severe	14 +	10 +	17 +

It is important to note that the severity labels in the DASS-21 are used to describe the range of scores within the general population. For instance, a "mild" label does not necessarily imply that the individual has a mild level of disorder; instead, it suggests that their score is above the population mean but likely below the usual severity level of individuals seeking professional help. This distinction highlights the tool's role as a measure of distress rather than a diagnostic instrument.

The DASS-21 has proven to be valid and reliable across diverse populations and settings. In this specific study, its relevance to assessing the psychological distress of teachers was confirmed during a pilot study. Teachers often experience significant stress due to high job demands, workload, and the emotional labor associated with their profession. The DASS-21 was found to be a suitable instrument for capturing the nuanced dimensions of their psychological well-being. Its reliability and validity in this context further support its application in occupational and educational research.

3.6.2 Irrational Performance Beliefs Inventory (iPBI)

The Irrational Performance Beliefs Inventory (iPBI) is a psychological measurement tool designed to evaluate irrational beliefs across various professional and personal contexts, including business, education, performing arts, the military, and sports and exercise. Developed collaboratively by researchers from Staffordshire University, Loughborough University, and the University of Wollongong, the iPBI represents a significant contribution to understanding and addressing irrational beliefs, which are a core concept in rational emotive behavior therapy (REBT). This inventory is widely recognized for its application and relevance in fields where cognitive and emotional responses play a critical role in performance and well-being.

The iPBI consists of 28 items that respondents rate based on their agreement using a 5-point Likert scale. The structure of the inventory is underpinned by REBT, a cognitive-behavioral approach first conceptualized by Ellis (1957), which identifies four core irrational beliefs. These beliefs are rooted in maladaptive thought patterns and often contribute to heightened emotional distress and impaired performance in various domains. The four dimensions of irrational beliefs measured by the iPBI are Demandingness, Awfulizing, Low Frustration Tolerance (LFT), and Depreciation.

1. Demandingness reflects the tendency for individuals to set rigid and unrealistic expectations for themselves and others, often expressed through thoughts such as "I must succeed" or "I must be treated fairly." Items such as "I must be treated fairly" capture the essence of this belief, highlighting the psychological pressure individuals place on themselves and others to meet these unyielding standards.
2. Awfulizing describes the inclination to catastrophize unfavorable situations, interpreting them as overwhelmingly negative or unbearable. For instance, a person may perceive

being disrespected as an "awful" event that severely impacts their emotional state, as captured by items like "It’s awful when I am disrespected."

3. Low Frustration Tolerance (LFT) signifies the belief that one cannot handle or cope with challenges or adversity. This is characterized by thoughts such as "I cannot stand being treated unfairly," which emphasize an individual's perception of their inability to endure discomfort or distressing circumstances.
4. Depreciation entails the belief that a singular event or failure defines an individual's entire worth or value. For example, an individual might think, "When I fail, it shows that I am a complete failure," reflecting a global negative assessment of self-worth based on isolated outcomes.

The iPBI has proven particularly relevant in educational settings, as it can evaluate the irrational beliefs of teachers. In pilot studies, the iPBI demonstrated strong validity and reliability, indicating its suitability for assessing irrational beliefs in educators. The insights gained from such assessments can inform interventions designed to enhance teachers’ resilience, cognitive flexibility, and overall well-being, thereby improving their professional effectiveness.

The scoring of the iPBI involves calculating subscale scores for each of the four dimensions. Each subscale includes specific items: Demandingness (items 4, 5, 9, 11, 13, 18, 22), Awfulizing (items 6, 16, 17, 21, 23, 26, 28), LFT (items 1, 3, 12, 15, 19, 20, 25), and Depreciation (items 2, 7, 8, 10, 14, 24, 27). Each subscale has a minimum possible score of 7 and a maximum possible score of 35. By summing the averages of the four subscales, a composite irrational beliefs score is derived, ranging from 28 to 140. Higher scores indicate a greater levels of irrational beliefs, which could be addressed through targeted cognitive-behavioral interventions.

The iPBI is based on the theoretical principles of REBT, which argues that irrational beliefs lead to emotional distress and maladaptive behaviours. By identifying and measuring these beliefs, the iPBI allows individuals and practitioners to focus on specific areas for cognitive restructuring. This approach is particularly beneficial in high-stress professions, such as teaching, where irrational beliefs can amplify stress and hinder performance. The application of the iPBI in pilot studies with teachers highlights its practical relevance and effectiveness in this context. Teachers, who often work in demanding environments, can gain significantly from understanding and addressing their irrational beliefs to enhance emotional well-being and professional satisfaction.

3.7 Pilot Study

Before the study was conducted, a pilot study was carried out in five schools, involving 12 teachers from the nearby county of Murang'a, which represented 10% of the sample size. The aim of the pilot study was to assess the reliability and validity of the questionnaire and identify ways to improve it. Additionally, the pilot study assisted the researcher in determining whether the questions were relevant to the population. Furthermore, it also familiarised the researcher with the data collection process. The participants in the pilot study were not included in the main study.

3.7.1 Validity of Research Instruments

Validity is defined as the correctness and significance of conclusions drawn from study findings (Mugenda & Mugenda, 2003). The degree to which data analysis findings accurately reflect the phenomenon under investigation is what we refer to as validity. Gall, Borg, and Gall (2007) define validity as a test's capability to accurately assess what it claims to measure. They state that

an instrument's validity can be improved through expert opinion. In the pilot study, standardised instruments were utilised to gather data, ensuring their validity through content validity assessment. Content validity in the development of any new instrument provides evidence of the instrument's validity by evaluating how well it measures its intended purpose (Almanasreh et al., 2019). In this study, the research questionnaire was reviewed by a team of expert judges, including two supervisors of the researcher and two specialists in psychology. The four expert judges evaluated the items in the questionnaire to determine if the research items were relevant to the subject matter and covered the full range of the measurement constructs. All four expert judges independently rated the items and agreed that they had relevant content, thereby ensuring their inclusion in the main study.

Construct validity refers to the degree to which instruments used for data collection in the field accurately measure the specific hypothesis of the study (Colliver, Conlee & Verhulst, 2012). Construct validity includes both the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test. KMO assesses sampling adequacy, determining whether the number of items used to measure a particular construct (variable) is sufficient. It ranges from 0.5 to 1, indicating that the instrument is valid. Bartlett's Test of Sphericity tests whether the study items for each construct are drawn from a population with equal variance. The p-values were <0.05, thus considered significant.

3.7.2 Reliability of Research Instruments

Mugenda and Mugenda (2003) as the degree to which a research instrument produces consistent outcomes or data following repeated testing define reliability. Research instruments were tested for dependability using the test-retest approach. Each selected teacher in Murang'a County's secondary schools was given a questionnaire twice, with a two-week interval, and the results were

compared to see if there were any variations. Using the Pearson Product-Moment Correlation method, a correlation coefficient (r) between the two assessments were generated. A correlation coefficient of r=0.6 was obtained showing high correlation.

Additionally, Cronbach's alpha, a measure of internal consistency based on inter-item correlation, was calculated for both instruments used. A dependability coefficient of at least 0.7, as suggested by Mugenda & Mugenda (1999), was considered satisfactory. The pilot results demonstrated that the DASS variable statements had high reliability, with a representative Cronbach's Alpha of 0.875, 0.902, and 0.916 for Depression, Anxiety, and Stress, respectively. The pilot results also indicated that the IBIS variable statements were highly reliable, with a representative Cronbach's Alpha of 0.899, 0.887, 0.955, and 0.926 for Demandingness, Low Frustration Tolerance, Awfulizing, and Depreciation, respectively.

3.8 Data Collection Procedures

The researcher received a letter of recommendation from Kenyatta University and a research permit from the National Council of Science, Technology and Innovation (NACOSTI). Additionally, a research authorization was obtained from the County Commissioner and the County Director of Education for Kiambu County. The researcher began by training two research assistants who were also trained counsellors. They were instructed to understand the purpose and objectives of the study and to use the tools appropriately to collect information that addresses the study's concerns. Next, the research team arranged meetings with the principals of the randomly sampled schools to visit and sample the teachers. The first teachers to respond were selected for inclusion in the study. However, those who had attended counselling sessions in the last three months were advised not to participate, as it was assumed that they might still be experiencing

significant psychological distress. A coded register was established to record the respondents willing to participate in the study and for follow-up purposes. Arrangements were made to hire meeting halls at Thika High School, ensuring that both halls could accommodate 60 participants each. Teachers from the first batch of 60 in the sampling list were placed in the intervention group (Group 1 or E1), while teachers from the second set of 60 were assigned to the control group (C1). The teachers were informed of the group meeting location, time, and dates.

To maximise the response, the researcher organised both physical and virtual sessions for each group at different times. Teachers who attended physical sessions were introduced to the training in person during the first session, where the pretest was administered. These initial sessions occurred simultaneously from noon to 1pm. Those unable to attend physically participated in the virtual sessions, which were held via Google Meet from 3pm to 4pm on the same day. The virtual tests were conducted by sending a link to the questionnaire in the form of Google survey forms through WhatsApp, email, or standard text messages to the respondents. The questionnaire (pretest) was provided on the first day for both the treatment and control groups. This questionnaire was again administered to both groups during the eighth and final session simultaneously. Follow-ups were conducted through phone calls. The entire training process spanned two months and occurred once a week, specifically on Saturday afternoons. Attendance for both physical and virtual sessions was monitored using coded attendance lists (see Appendix 8).

Structure of the Cognitive Restructuring Program (Intervention) For Teachers

PRE-GROUP PROCESS

Seeking permission – official letter

Group Formation -recruiting members (voluntary) but first ones to volunteer were given the first opportunity to participate in the study.

Group Size/Duration – 2 groups of 60 members each

All respondents gathered on the first day and were directed to their respective halls. The introduction of the research team, along with the facilitators and participants, was conducted. Respondents were given instructions along with assurances of anonymity and confidentiality before signing the consent forms. Both group and individual goals were established, followed by the setting of group norms and rules. Subsequently, ample time was provided to complete the questions (pretest), after which the research team collected the completed tools.

The cognitive restructuring technique from CBT theory was delivered over six sessions for the intervention group. These sessions included: identifying the situation, recording negative thoughts and feelings, analysing thoughts using a checklist of cognitive distortions, finding objective supportive evidence, discovering objective contradictory evidence, and consulting realistic and balanced thoughts.

The questionnaire was again administered to both groups in the 8th and final session simultaneously. It is worth noting that the respondents who needed immediate personal counselling in the course of training, were attended to by the research team after the sessions while others were referred. Below is a table of the intervention programme.

Table 3.5 Intervention Program

Session Number	Goals	Activities	Evaluation	Group	Duration (hrs)
Session 1	Introduction	✓ Introduction of facilitators and participants ✓ Setting group goals - tasks to be achieved ✓ Setting the individual goals ✓ Setting group norms/rules/policy	**Pre test**	**Control and Treatment group**	**1**
Session 2	Working counselling/cognitive restructuring	✓ Personal Development. Exercise ✓ Identifying the situation	**N/A**	**Treatment group**	**1**
Session 3	Cognitive restructuring	✓ Recording the negative feelings	**N/A**	**Treatment group**	**1**
Session 4	Working counselling/cognitive restructuring	✓ Recording automatic thoughts ✓ Analyzing the thoughts using a checklist of cognitive distortions	**N/A**	**Treatment group**	**1**
Session 5	Working counselling/cognitive restructuring	✓ Find Objective Supportive Evidence	**N/A**	**Treatment group**	**1**
Session 6	Working counselling/cognitive restructuring	✓ Find Objective Contradictory Evidence	**N/A**	**Treatment group**	**1**
Session 7	Cognitive restructuring	✓ Constructing realistic and balanced thoughts	**N/A**	**Treatment group**	**1**
Session 8	Post test	✓ Post test ✓ Appreciations	**Post test**	**Control and Treatment group**	**1**

3.9 Data Analysis and Presentation

After gathering data, it underwent a rigorous cleaning process to identify and rectify any errors or omissions that may have occurred during data collection. This step ensured that the dataset was reliable and of high quality, which is essential for valid and accurate analysis. Once cleaned, the data was coded appropriately to facilitate further analysis. The Statistical Package for Social Sciences (SPSS) version 21 was used for this purpose, demonstrating a preference for robust software widely recognised for its capacity to handle both quantitative and qualitative data analyses.

Quantitative data analysis involved the use of both descriptive and inferential statistical techniques. Descriptive statistics enabled researchers to summarise and organise data using measures such as frequencies, percentages, means, and standard deviations. These techniques offered an overview of the dataset, highlighting trends, central tendencies, and variability within the data.

Inferential statistics were used to explore the relationships and differences within the dataset. Techniques such as the t-test, linear regression analysis, and Pearson correlation analysis were employed. The t-test was essential for comparing means between groups, while linear regression assisted in examining the relationship between dependent and independent variables. Pearson correlation analysis, conversely, offered insights into the strength and direction of relationships between variables.

Table 3.6 Data analysis Table

Research question	Hypothesis	Variables	Statistical tests	Model
What are the levels of psychological distress among secondary school teachers in Kiambu County, Kenya?	None	Psychological distress	Descriptive statistics (means and frequencies)	N/A
What are the types of irrational beliefs held by secondary school teachers in Kiambu County, Kenya?	None	Irrational beliefs	Descriptive statistics (means and frequencies	N/A
What is the relationship between irrational beliefs and psychological distress among secondary school teachers in Kiambu County, Kenya?	**H_{01}:** There is no significant relationship between irrational beliefs and psychological distress among secondary school teachers in Kiambu County, Kenya	Irrational beliefs Psychological distress	Correlation	N/A
What is the effectiveness of cognitive restructuring in reducing irrational beliefs among teachers in Kiambu County, Kenya?	**H_{02}:** Cognitive restructuring does not have a significance effect on irrational beliefs of teachers in Kiambu County, Kenya	Cognitive restructuring Irrational beliefs	T-test	N/A
What is the effectiveness of cognitive restructuring on psychological distress among teachers in Kiambu County, Kenya?	**H_{03}:** Cognitive restructuring does not have a significance effect on psychological distress of teachers in Kiambu County, Kenya	Cognitive restructuring Psychological distress	T-test	N/A

3.10 Data Management and Ethical Considerations

In the course of conducting this research, paramount importance was placed on ethical principles and practices to ensure the well-being and rights of participants. Before their participation in the study, all individuals involved willingly and knowingly read and signed informed consent forms.

These documents provided a comprehensive explanation of the study's objectives, the nature of their involvement, potential risks, and their absolute right to opt out at any stage without facing any adverse consequences. The informed consent process was conducted meticulously, involving both written documents and in-person verbal explanations. This approach aimed to ensure that participants had a clear understanding of their participation and their right to make choices throughout the research.

Safeguarding the confidentiality of participants was a fundamental ethical commitment. The researcher pledged to treat all personal information gathered during the study with the utmost discretion and care. Data collected, including any identifying details, was kept in strict confidence and used solely for academic purposes. Robust security measures were implemented to protect both digital and physical records, including encryption and restricted access protocols.

To further enhance participant confidentiality, the researcher employed a systematic method of unique codes for data management. These codes were assigned randomly and used solely to represent participants, ensuring their complete anonymity throughout the study. Participation in the research was entirely voluntary. At no point did any participant experience any form of coercion, pressure, or penalty for declining to participate. Furthermore, no compensation or inducement was offered to participants to prevent any undue influence on their decision to partake in the study.

Given the sensitive nature of the research, which involved inquiries that might evoke emotional distress, the researcher took proactive steps to minimize potential harm. Participants were provided with contact information for mental health resources and support services, should they experience any distress as a result of their participation. Furthermore, a debriefing session was offered to provide additional support and clarification after their involvement.

Ethical approval for the research was sought and received from Kenyatta University. Necessary permissions and authorization for our research, including a research license from NACOSTI, as well as authority from both the County Commissioner and the County Director of Education in Kiambu County, where the study was conducted was secured.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION OF THE FINDINGS

4.1 Introduction

This chapter contains the findings of the study on the effectiveness of cognitive restructuring in mitigating work-related psychological distress among secondary school teachers in Kiambu County, Kenya. The chapter reports the findings as per the objectives of the study.

4.2 Response Rate

One hundred and twenty (120) questionnaires were issued to the respondents and a total of 107 questionnaires were collected for analysis. This makes a response rate of 90% for the Control Group and 88.3% for the Treatment Group and an overall response rate of 89.2% for both groups which was considered adequate for analysis. This is in line with Mugenda (2008) and Cooper and Schindler (2003) who suggested that a response rate of more than 70% based on the study sample is enough for analysis and making conclusion in a study.

Table 4.1 Response Rate for Both Groups after Intervention

Category	Response rate	Non-Response	Total
Control	54(90%)	6(10%)	60
Treatment	53(88.3%)	7(11.7%)	60
	107(89.2%)	**13(10.8%)**	**120**

4.3 Demographic Characteristics of the Respondents

The demographic findings from the study are as herein indicated. Among the demographic information sought in this study was gender, age and number of years of employment as a teacher.

Table 4.2 Demographic Characteristics of the Respondents

		Category			
		Control	**Treatment**	**Total**	**Percentage**
Gender	Female	30	30	60	56.1%
	Male	24	23	47	43.9%
	Total	**54**	**53**	**107**	**100%**
Age	18 to 35 years	3	3	6	5.6%
	36 to 45 years	19	19	38	35.5%
	46 to 55 years	25	24	49	45.8%
	Over 55 years	7	7	14	13.1%
	Total	**54**	**53**	**107**	**100%**
Years of employment	Less than 1 year	4	4	8	7.5%
	2 to 5 years	13	13	26	24.3%
	6 to 10 years	23	22	45	42.1%
	Over 10 years	14	14	28	26.2%
	Total	**54**	**53**	**107**	**100%**

From Table 4.2, majority of the respondents (56.1%) were females while 43.9% were males.

For age, majority of the respondents (45.8%) were aged between 46-55 years. 35.5% of the respondents were aged between 36-45 years while 13.1% were aged above 55 years. 5.6% of the respondents were aged between 18 and 35 years.

For duration of employment, majority of the respondents (42.1%) had been employed for a period of 6-10 years. 26.2% of the respondents had been employed for over 10 years while 24.3% of the

respondents had been employed for a period of 2 to 5 years. 7.5% of the respondents had been employed for less than a year.

4.4. Findings of the Study

In this section, findings of the study are presented according to the objectives of the study;

4.4.1 Levels of Psychological Distress Among Secondary School Teachers

The findings in this section were guided by the first objective of the study which was to establish the levels of psychological distress among secondary school teachers in Kiambu County, Kenya.

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) tool was used to determine the frequency with which secondary school teachers experienced depression, anxiety, and stress. The levels of psychological distress was categorized in five different categories which included Normal, Mild, Moderate, Severe and Extremely severe depending on the scores.

Table 4.3 Levels of Psychological Distress among Teachers in Kiambu County

		Category			
		Control Pretest	**Treatment Pretest**	**Total**	**Percentage**
Depression	Normal	13	15	28	26.2
	Mild	8	17	25	23.4
	Moderate	33	21	54	50.5
	Total	**54**	**53**	**107**	**100**
Anxiety	Normal	3	12	15	14.0
	Mild	11	15	26	24.3
	Moderate	40	26	66	61.7
	Total	**54**	**53**	**107**	**100**
Stress	Normal	22	25	47	43.9
	Mild	16	17	33	30.8
	Moderate	16	11	27	25.2
	Total	**54**	**53**	**107**	**100**

The results shows that a majority of teachers (50.5%) experienced moderate levels of depression, indicating a significant prevalence of depressive symptoms within this professional group. This was followed by 26.2% of the teachers who fell within the normal range, suggesting they did not experience notable depressive symptoms at the time of the assessment. The remaining 23.4% of teachers experienced mild depression. These figures point to a considerable mental health concern, with nearly three-quarters of the teachers (73.9%) experiencing at least mild depressive symptoms.

Anxiety levels among the teachers were even more concerning. A significant 61.7% of the respondents exhibited moderate anxiety. 24.3% of the teachers reported mild anxiety, while only 14.0% fell within the normal range. These findings suggest that anxiety is a prominent issue among secondary school teachers in Kiambu County, with more than 85% of them experiencing symptoms ranging from mild to moderate levels. However, there are no cases of severe anxiety.

The distribution of stress levels showed a slightly more balanced trend compared to depression and anxiety. 43.9% of the teachers reported normal stress levels, indicating no significant symptoms. However, 30.8% experienced mild stress, and 25.2% were found to have moderate stress levels. This implies that while a relatively larger proportion of teachers were not experiencing serious stress-related symptoms, a considerable number still suffered from mild to moderate stress. However, there are no cases of severe distress.

These results were in agreement with findings of Othman and Sivasubramaniam (2019) who investigated the prevalence of psychological distress among secondary school teachers and found out that the teachers had a high prevalence of depressive, anxiety and psychological distress symptoms. Similarly, Islam (2019) investigated the incidence of psychological distress and its

association with socio-demographic characteristics in a rural district of Bangladesh. The survey found that 52.5% of people experience some sort of psychological distress, with a range from mild (22.7%) to moderate (20.8%) to severe (9.0%). On the same note, Desouky and Allam (2017) who conducted a cross-sectional study aiming to assess the prevalence of occupational stress, depression, and anxiety among Egyptian teachers. The findings revealed high prevalence rates, with 100% of teachers experiencing occupational stress, 67.5% experiencing anxiety, and 23.2% experiencing depression. The similarity with findings in other regions (Bangladesh, Egypt) suggests that psychological distress among teachers is a global concern linked to occupational stressors.

A cross tabulation between the psychological distress and demographic characteristics was conducted. The results are presented below;

Table 4.4 Cross Tabulation of Depression with Demographic Characteristics

			Normal	**Mild**	**Moderate**	**Severe**	**Extremely severe**	**Total**	**Percentage**
Depression	Gender	Female	18	11	31	0	0	60	56.1
		Male	10	14	23	0	0	47	43.9
		Total	**28**	**25**	**54**	**0**	**0**	**107**	**100**
	Age	Between 18 and 35 years	3	0	3	0	0	6	5.6
		36 to 45 years	10	9	19	0	0	38	35.5
		46 to 55 years	13	12	24	0	0	49	45.8
		Over 55 years	2	4	8	0	0	14	13.1
		Total	**28**	**25**	**54**	**0**	**0**	**107**	**100**
	Years of employment	Less than 1 year	4	0	4	0	0	8	7.5
		2 to 5 years	5	8	13	0	0	26	24.3
		6 to 10 years	13	11	21	0	0	45	42.1
		Over 10 years	6	6	16	0	0	28	26.2
		Total	**28**	**25**	**54**	**0**	**0**	**107**	**100**

The data reveals that females report higher levels of depression compared to males, comprising 56.1% of total cases. This gender disparity in depression prevalence aligns with broader mental health research indicating that women are generally more susceptible to depressive symptoms, potentially due to biological, social, and psychological factors. The higher depression rates among middle-aged individuals (45.8%) highlight a vulnerable group possibly facing increased life and work stressors, such as balancing professional demands with family responsibilities. This is especially relevant for secondary school teachers, where pressures related to student outcomes and administrative duties may intensify during these years. Furthermore, the correlation between longer years of employment and depression suggests cumulative occupational stress and burnout effects. Teachers with extended service may experience chronic exposure to stressors like workload, classroom management challenges, and evolving educational expectations, which can contribute to mental health decline over time. These findings underscore the importance of targeted mental health support and stress management interventions tailored to gender, age, and career stage within educational settings. These results concur with those of Othman and Sivasubramaniam (2019) and Islam (2019), who similarly identified gender and occupational factors as key predictors of depression among teachers, further reinforcing the global relevance of these demographic associations. On the same note, Albert (2015) noted that women are generally twice as likely to experience depression compared to men, attributed to hormonal fluctuations, social role expectations, and gendered stress exposures. Additionally, Nguyen et al. (2021) reported that middle-aged educators face compounded pressures from career demands and family responsibilities, increasing their risk for depression and burnout. This stage often coincides with heightened expectations to perform, limited career advancement, and personal life stressors, which are known to exacerbate psychological distress. On the other hand, Kim and

Cho (2020) documented that teachers with over 10 years of service experience more stress and depressive symptoms due to ongoing exposure to classroom management challenges, policy changes, and administrative burdens. This cumulative effect underscores the need for sustained mental health support, especially for veteran teachers.

A cross-tabulation analysis of anxiety levels with various demographic characteristics, including gender, age, and years of employment was carried out. Table 4.5 outlines the distribution of individuals across different levels of anxiety (Normal, Mild, Moderate, Severe, extremely severe) based on these demographic factors.

Table 4.5 Cross Tabulation of Anxiety with Demographic Characteristics

			Normal	**Mild**	**Moderate**	**Severe**	**Extremely severe**	**Total**	**Percentage**
Anxiety	Gender	Female	10	13	37	0	0	60	56.1
		Male	5	13	29	0	0	47	43.9
		Total	**15**	**26**	**66**	**0**	**0**	**107**	**100**
	Age	Between 18 and 35 years	0	1	5	0	0	6	5.6
		36 to 45 years	8	7	23	0	0	38	35.5
		46 to 55 years	6	13	30	0	0	49	45.8
		Over 55 years	1	5	8	0	0	14	13.1
		Total	**15**	**26**	**66**	**0**	**0**	**107**	**100**
	Years of employment	Less than 1 year	0	2	6	0	0	8	7.5
		2 to 5 years	7	6	13	0	0	26	24.3
		6 to 10 years	6	10	29	0	0	45	42.1
		Over 10 years	2	8	18	0	0	28	26.2
		Total	**15**	**26**	**34**	**0**	**0**	**107**	**100**

Consistent with the findings for depression, anxiety appears more prevalent among female teachers, representing 56.1% of cases. This gender trend may reflect social and biological factors influencing anxiety disorders. The prominence of anxiety among middle-aged teachers,

especially those aged 46 to 55, suggests that this career phase may carry heightened pressures. Challenges such as job security concerns, performance evaluations, and adapting to curriculum reforms can elevate anxiety levels. Interestingly, teachers with mid-range years of employment (2 to 10 years) reported higher anxiety than their less experienced or more senior colleagues. This could indicate that early-to-mid career teachers face unique stressors related to establishing competence, managing classroom dynamics, and meeting increasing performance expectations. These patterns suggest that anxiety management programs and professional development initiatives should focus on mid-career teachers to address specific stressors impacting their mental well-being.

A cross-tabulation analysis of stress levels with various demographic characteristics, including gender, age, and years of employment was carried out. Table 4.6 outlines the distribution of individuals across different levels of stress (Normal, Mild, Moderate, Severe, extremely severe) based on these demographic factors.

Table 4.6 Cross Tabulation of Stress with Demographic Characteristics

			Normal	**Mild**	**Moderate**	**Severe**	**Extremely severe**	**Total**	**Percentage**
Stress	Gender	Female	40	10	10	0	0	60	56.1
		Male	33	8	6	0	0	47	43.9
		Total	**73**	**18**	**16**	**0**	**0**	**107**	**100**
	Age	Between 18 and 35 years	3	1	2	0	0	6	5.6
		36 to 45 years	26	6	6	0	0	38	35.5
		46 to 55 years	33	8	8	0	0	49	45.8
		Over 55 years	11	3	0	0	0	14	13.1
		Total	**73**	**18**	**16**	**0**	**0**	**107**	**100**
	Years of employment	Less than 1 year	4	1	3	0	0	8	7.5
		2 to 5 years	20	5	1	0	0	26	24.3
		6 to 10 years	30	7	8	0	0	45	42.1
		Over 10 years	19	5	4	0	0	28	26.2
		Total	**73**	**18**	**16**	**0**	**0**	**107**	**100**

The cross-tabulation for stress reveals a relatively balanced gender distribution, with females slightly more affected (56.1%) than males (43.9%), which is consistent with general trends showing modest gender differences in stress reporting. Notably, stress levels peak among teachers aged 36 to 55, indicating that mid-career educators are particularly susceptible. This may be due to a convergence of career demands, such as leadership responsibilities, curriculum implementation, and work-life balance challenges. The pattern of heightened stress among mid-career teachers, particularly those with 6 to 10 years of employment, suggests that accumulated job pressures, combined with evolving professional roles, contribute significantly to stress experiences. Unlike depression and anxiety, stress does not appear to disproportionately affect early-career or veteran teachers, implying potential adaptation or coping strategies developed over time. These findings highlight the need for organizational policies that support stress reduction, including workload management, mentoring, and access to mental health resources targeted at educators navigating the critical mid-career phase.

It is notable that females, teachers aged between 35-55 years and those with work experience had the highest psychological distress. Future research needs to establish other factors related to this. It is also evident that there is need to develop gender and age specific interventions

The results concur with previous research which consistently underscores the vulnerability of mid-career teachers, who face compounded stressors from leadership roles, curriculum demands, and work-life balance issues (Nguyen et al., 2021; García-Carmona et al., 2023). The cumulative effects of years of employment increase susceptibility to psychological distress, with veteran teachers often experiencing burnout without sufficient coping resources (Kim and Cho, 2020).

4.4.2 Types of Irrational Beliefs Held by Secondary School Teachers

The second objective of the study sought to determine the types of irrational beliefs held by secondary school teachers in Kiambu County, Kenya. The irrational performance beliefs inventory (iPBI) was used to measure irrational beliefs (Demandingness, Low Frustration Tolerance, Awfulizing and Depreciation) among secondary school teachers. The types of irrational beliefs were categorized in three different categories which included Low, Moderate and High depending on the scores.

Table 4.7 Types of Irrational beliefs for Teachers in Kiambu County

		Category			
		Control Pretest	**Treatment Pretest**	**Total**	**Percentage**
Demandingness	Low	7	7	14	13.1
	Moderate	30	35	65	60.7
	High	17	11	28	26.2
	Total	**54**	**53**	**107**	**100**
LFT	Low	5	7	12	11.2
	Moderate	30	35	65	60.7
	High	19	11	30	28.0
	Total	**54**	**53**	**107**	**100**
Awfulizing	Low	5	7	12	11.2
	Moderate	40	40	80	74.8
	High	9	6	15	14.0
	Total	**54**	**53**	**107**	**100**
Depreciation	Low	9	10	19	17.8
	Moderate	35	38	73	68.2
	High	10	5	15	14.0
	Total	**54**	**53**	**107**	**100**

For Demandingness, the majority of teachers (60.7%) were found to hold moderate levels of this belief, indicating a prevalent tendency to have rigid and unrealistic expectations in performance

or behavior. About 26.2% exhibited high levels of demandingness, reflecting strong beliefs that their expectations must be met, while only 13.1% showed low levels, suggesting a minority with more flexible thinking patterns.

For Low Frustration Tolerance, a majority (60.7%) scored in the moderate range, suggesting that many teachers struggle to cope with discomfort or stress but not to an extreme degree. However, 28.0% recorded high LFT, indicating significant difficulties in tolerating challenges or delays, which may affect their emotional regulation and professional resilience. A smaller proportion (11.2%) scored low, reflecting better coping mechanisms among this group.

The Awfulizing belief, which refers to the tendency to exaggerate the negative aspects of situations, showed the highest concentration in the moderate range, with 74.8% of teachers falling into this category. This suggests that a large number of teachers perceive difficult events as highly undesirable but not entirely catastrophic. Only 14.0% held high awfulizing beliefs, and 11.2% scored low, indicating fewer teachers who either greatly exaggerate or minimize the negativity of adverse events.

For Depreciation, which involves negatively evaluating oneself or others when expectations are unmet, 68.2% of the teachers scored in the moderate range, again showing a common presence of this belief. Only 14.0% scored high, indicating a tendency toward severe self-downing or blaming others, while 17.8% scored low, reflecting a more balanced and accepting attitude.

These results showed that levels of irrational beliefs among secondary school teachers were moderate and hence the prevalence of irrational beliefs raised a concern. These results were in line with those of Bermejo-Toro and Prieto-Ursúa (2006) who explored the association between teachers' irrational beliefs and different indicators of teacher distress in Spain and the study

revealed that 32 percent of the teachers scored high on illogical views. The results of the study showed that the more teachers showed a tendency toward irrational thinking, the higher their scores in role-related stress, burnout, psychiatric disorders, and despair. The results also conquer with those of Tanhan (2014) who investigated what influences elementary and secondary school teachers in Turkey to hold irrational ideas. Study findings showed that whereas 87.3% of participants held rational opinions, 12.7% held irrational ones. Depressive symptoms, work satisfaction, and years of experience were revealed to be the strongest predictors of teachers' rational and illogical opinions. These findings are also in line with those of Patel and Banerjee (2022) who investigated the prevalence of irrational thinking patterns among elementary school teachers. The study found that irrational beliefs such as catastrophizing, rigid thinking, and black-and-white perspectives were common among teachers.

A cross-tabulation analysis of demandingness levels with various demographic characteristics, including gender, age, and years of employment was carried out. Table 4.8 outlines the distribution of individuals across different levels of demandingness (Low, Moderate, High) based on these demographic factors.

Table 4.8 Cross Tabulation of Demandingness with Demographic Characteristics

			Low	Moderate	High	Total	Percentage
Demandingness	Gender	Female	7	40	13	60	56.1
		Male	7	30	10	47	43.9
		Total	**14**	**70**	**23**	**107**	**100**
	Age	Between 18 and 35 years	0	4	2	6	5.6
		36 to 45 years	2	28	8	38	35.5
		46 to 55 years	3	37	9	49	
		Over 55 years	3	7	4	14	13.1
		Total	**8**	**76**	**23**	**107**	**100**
	Years of employment	Less than 1 year	0	6	2	8	7.5
		2 to 5 years	1	20	5	26	24.3
		6 to 10 years	5	31	9	45	42.1
		Over 10 years	3	18	7	28	26.2
		Total	**9**	**75**	**23**	**107**	**100**

The data show that female teachers (56.1%) tend to report higher levels of demandingness compared to males (43.9%). This may reflect gendered expectations or differential responses to occupational stress, where women might hold themselves or others to higher standards or experience unique pressures in the educational environment. The age distribution highlights that most teachers experiencing demandingness are in the 36 to 55 years age range (87.6%), with increasing demandingness as teachers age. This pattern suggests that factors such as accumulated responsibilities, increased workload, or changes in personal and professional circumstances over time could contribute to rising cognitive rigidity or perfectionism. Similarly, demandingness appears to grow with years of employment, peaking among those with 6 to 10 years (42.1%) and over 10 years (26.2%) of experience. This trend may indicate that as teachers become more

experienced, they may develop heightened expectations of themselves or their students, possibly due to confidence gained or burnout from prolonged challenges. It also raises the possibility that demandingness could be a coping mechanism or a response to career pressures, emphasizing the need for targeted support interventions for mid-career educators.

A cross-tabulation analysis of Low Frustration Tolerance levels with various demographic characteristics, including gender, age, and years of employment was carried out. Table 4.9 outlines the distribution of individuals across different levels of Low Frustration Tolerance (Low, Moderate, High) based on these demographic factors.

Table 4.9 Cross Tabulation of LFT with Demographic Characteristics

			Low	Moderate	High	Total	Percentage
LFT	Gender	Female	4	42	14	60	56.1
		Male	3	36	8	47	43.9
		Total	**7**	**78**	**22**	**107**	**100**
	Age	Between 18 and 35 years	0	4	2	6	5.6
		36 to 45 years	3	27	8	38	35.5
		46 to 55 years	4	36	9	49	45.8
		Over 55 years	0	11	3	14	13.1
		Total	**7**	**78**	**22**	**107**	**100**
	Years of employment	Less than 1 year	0	8	0	8	7.5
		2 to 5 years	2	23	1	26	24.3
		6 to 10 years	7	37	1	45	42.1
		Over 10 years	2	25	1	28	26.2
		Total	**11**	**93**	**3**	**107**	**100**

The analysis reveals a slightly higher prevalence of low frustration tolerance among female teachers (56.1%) compared to males (43.9%). This gender difference might be influenced by varying coping strategies or socialization processes related to emotional regulation. Notably, teachers aged 46 to 55 years show the highest prevalence of low frustration tolerance, suggesting that mid to late career stages may involve challenges that erode patience or resilience, such as

chronic stress or diminishing motivation. The peak in low frustration tolerance among teachers with 6 to 10 years of employment also supports this, possibly reflecting a burnout phase or the cumulative effect of ongoing job demands. Conversely, those with less than 1 year of employment report the lowest levels, which may relate to initial enthusiasm or optimism early in their careers. This pattern underscores the importance of proactive measures such as professional development and emotional resilience training focused on mid-career teachers to mitigate the risks of frustration and burnout.

A cross-tabulation analysis of Awfulizing levels with various demographic characteristics, including gender, age, and years of employment was carried out. Table 4.10 outlines the distribution of individuals across different levels of Awfulizing (Low, Moderate, High) based on these demographic factors.

Table 4.10 Cross Tabulation of Awfulizing with Demographic Characteristics

			Low	**Moderate**	**High**	**Total**	**Percentage**
Awfulizing	Gender	Female	6	52	2	60	56.1
		Male	5	41	1	47	43.9
		Total	**11**	**93**	**3**	**107**	**100**
	Age	Between 18 and 35 years	0	6	0	6	5.6
		36 to 45 years	5	32	1	38	35.5
		46 to 55 years	5	43	1	49	45.8
		Over 55 years	1	12	1	14	13.1
		Total	**11**	**93**	**3**	**107**	**100**
	Years of employment	Less than 1 year	0	8	0	8	7.5
		2 to 5 years	2	23	1	26	24.3
		6 to 10 years	7	37	1	45	42.1
		Over 10 years	2	25	1	28	26.2
		Total	**11**	**93**	**3**	**107**	**100**

The distribution of awfulizing is relatively similar across genders but slightly more common among females (56.1%). The higher levels observed in teachers aged 36 to 55 years suggest that mid-career educators are particularly vulnerable to catastrophic thinking or negative cognitive distortions. This could stem from accumulated work pressures, job dissatisfaction, or challenges balancing professional and personal demands. The finding that mid-career teachers rather than novices or long-tenured teachers show elevated awfulizing might reflect a critical career phase where frustrations peak due to stalled career advancement or increased administrative burden. The slight increase among those with 6 to 10 years of employment again points to a burnout-prone stage, where teachers may interpret challenges more pessimistically, emphasizing the need for psychological support and stress management programs tailored to this demographic.

A cross-tabulation analysis of Depreciation levels with various demographic characteristics, including gender, age, and years of employment was carried out. Table 4.11 outlines the distribution of individuals across different levels of Awfulizing (Low, Moderate, High) based on these demographic factors.

Table 4.11 Cross Tabulation of Depreciation with Demographic Characteristics

			Low	Moderate	High	Total	Percentage
Depreciation	Gender	Female	10	42	8	60	56.1
		Male	7	36	4	47	43.9
	Total		**17**	**78**	**12**	**107**	**100**
	Age	Between 18 and 35 years	2	2	2	6	5.6
		36 to 45 years	3	30	5	38	35.5
		46 to 55 years	8	37	4	49	45.8
		Over 55 years	3	8	3	14	13.1
	Total		**16**	**77**	**14**	**107**	**100**
	Years of employment	Less than 1 year	3	3	2	8	7.5
		2 to 5 years	2	20	4	26	24.3
		6 to 10 years	7	35	3	45	42.1
		Over 10 years	2	24	2	28	26.2
	Total		**14**	**82**	**11**	**107**	**100**

The pattern of depreciation aligns with other irrational beliefs, showing a slightly higher prevalence among females (56.1%) and concentration within the 36 to 55 years age group. Teachers in this age range and with 6 to 10 years of service are more likely to experience feelings of depreciation, which may relate to career fatigue, unmet expectations, or frustrations with the education system. Mid-career teachers may face pressure to meet professional standards without commensurate rewards or recognition, leading to diminished self-worth or motivation. This aligns with the broader literature on career burnout, where prolonged stress and limited progression can erode professional identity. These findings emphasize the need for interventions focusing on career development, mentorship, and workplace support to help teachers maintain positive self-regard and professional engagement through challenging career phases.

4.4.3 Relationship between Irrational Beliefs and Psychological Distress

To investigate the relationship between irrational beliefs and psychological distress exhibited by secondary school teachers in Kiambu County, correlational analysis was employed. Specifically, Pearson's correlation coefficient (r) was employed to quantify the strength and direction of the relationship between these two variables. This would help to determine whether there is a statistically significant correlation between irrational beliefs and psychological distress. The results were presented below;

Table 4.12 Correlation between Irrational Beliefs and Psychological Distress

		Depreciation	LFT	Awfulizing	Demandingness	Depression	Anxiety	Stress
Depreciation	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	227						
LFT	Pearson Correlation	.425**	1					
	Sig. (2-tailed)	.000						
	N	227	227					
Awfulizing	Pearson Correlation	.235**	.198**	1				
	Sig. (2-tailed)	.000	0.003					
	N	227	227	227				
Demandingness	Pearson Correlation	.411**	.277**	.316**	1			
	Sig. (2-tailed)	.000	.000	.000				
	N	227	227	227	227			
Depression	Pearson Correlation	.412**	.203**	.131*	.218**	1		
	Sig. (2-tailed)	.000	0.002	0.049	0.001			
	N	227	227	227	227	227		
Anxiety	Pearson Correlation	.290**	.138*	-0.028	.140*	.599**	1	
	Sig. (2-tailed)	.000	0.038	0.673	0.036	.000		
	N	227	227	227	227	227	227	
Stress	Pearson Correlation	0.037	.142*	-0.109	0.04	.368**	.555**	1
	Sig. (2-tailed)	0.575	0.033	0.101	0.549	.000	.000	
	N	227	227	227	227	227	227	227

The results indicated that all irrational beliefs were significantly positively correlated with Depression, with Depreciation ($r = .412$, $p < .01$) and Demandingness ($r = .218$, $p < .01$) showing the strongest relationships. LFT was also significantly associated with Depression ($r = .203$, $p < .01$), while Awfulizing had a weaker yet significant correlation ($r = .131$, $p < .05$). Anxiety was significantly correlated with Depreciation ($r = .290$, $p < .01$), LFT ($r = .138$, $p < .05$), and Demandingness ($r = .140$, $p < .05$). However, Awfulizing had no significant association with Anxiety ($r = –.028$, $p = .673$). Stress was only weakly related to irrational beliefs, with the highest correlation being with LFT ($r = .142$, $p < .05$). No significant association was found between Depreciation and Stress ($r = .037$, $p = .575$), or between Demandingness and Stress ($r = .040$, $p = .549$).

These results were in agreement with those of Stebbins (2015) who examined the link between unreasonable schematic ideas and careers' psychological suffering (TBI) and found out that there was an association between psychological distress in general and unreasonable thoughts about Worrying in particular. Also, Bermejo-Toro and Prieto-Ursúa (2006) who explored the association between teachers' irrational beliefs and different indicators of teacher distress in Spain concluded that Irrational beliefs have a strong connection with absenteeism characteristics which were indicator of teacher distress. The findings also agree with those of Santarpia et al. (2023) conducted a study examining the relationship between irrational beliefs and workplace well-being, focusing on secondary irrational beliefs such as self-depreciation, low frustration tolerance, and awfulizing. The results showed that awfulizing and the general irrationality component were adversely correlated with well-being. This suggests that irrational beliefs contribute to internalizing issues, including stress, anxiety, and depression. Additionally, Zeb and Khan (2024) conducted a study to investigate how irrational beliefs contribute to psychological

distress, situating their research within the cognitive-behavioral paradigm. The researchers found that individuals with higher levels of irrational beliefs, particularly those tied to catastrophizing and low frustration tolerance, experienced significantly elevated levels of psychological distress.

4.4.4 Effectiveness of Cognitive Restructuring on Irrational Beliefs

This section explores the impact of cognitive restructuring on participants' irrational beliefs by comparing pre-test and post-test scores. The assessment focuses on four key domains of irrational beliefs as measured by the Irrational Beliefs Psychological Scale (IBPS): Demandingness, Low Frustration Tolerance (LFT), Awfulizing, and Depreciation. The objective is to determine whether cognitive restructuring leads to significant reductions in these maladaptive cognitive patterns. To establish a baseline for comparison and rule out changes unrelated to the intervention, descriptive statistics were first computed for the control group, which did not receive any treatment. These statistics provide insight into the mean scores and standard deviations across the measured domains, both before and after the study period.

Table 4.13 Descriptive Statistics for Control Pre and Posttest for Irrational Beliefs

IPBS	Category	Mean	Std. Dev
Demandingness	Control Pretest	25.4333	4.9546
	Control Posttest	24.2	4.27831
LFT	Control Pretest	25.15	4.03134
	Control Posttest	24	4.5806
Awfulizing	Control Pretest	25.8	4.82259
	Control Posttest	24.5167	4.92345
Depreciation	Control Pretest	25.2667	4.08539
	Control Posttest	24.15	4.14603

The table shows a slight decrease in mean scores across all four irrational belief categories (Demandingness, Low Frustration Tolerance (LFT), Awfulizing, and Depreciation) from pretest to posttest in the control group. These reductions (ranging from approximately 1.1 to 1.3 points) suggest minimal change in irrational beliefs. The standard deviations remain relatively consistent, indicating stable variability in responses.

The t-test was conducted in this study to assess the statistical significance of the differences observed in irrational beliefs measures between two groups: one group that received the cognitive restructuring intervention and another that did not. The t-test is a widely used statistical test for comparing means of two groups and determining whether the observed differences are likely due to a real effect or simply the result of chance (Smith, 2021). In this case, it was used to determine if the mean differences in demandingness, Low Frustration Tolerance, Awfulizing and depreciation scores between the control group and the treatment group were statistically significant. The t-values were calculated by comparing the mean differences to their standard errors, and the degrees of freedom were used to determine the appropriate t-distribution. The resulting p-values were used to determine the level of statistical significance, with lower p-values indicating stronger evidence of a real effect.

The findings on the effectiveness of Cognitive restructuring on irrational beliefs among the respondents are presented in Table 4.14 below.

Table 4.14 t-test Results for Control Group

IPBS	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Demandingness	1.242	118	0.217	1.233	0.993	-0.733	3.199
LFT	1.38	118	0.17	1.15	0.834	-0.500	2.800
Awfulizing	1.314	118	0.191	1.283	0.977	-0.650	3.217
Depreciation	1.334	118	0.185	1.117	0.837	-0.541	2.774

Table 4.10 presents the t-test results for the control group, comparing their pre-test and post-test scores for demandingness, LFT, awfulizing and depreciation. The p-values of ($p = 0.217$, $p = 0.170$, $p = 191$ and $p = 0.185$ respectively) imply that there were no significant changes in demandingness, LFT, awfulizing and depreciation scores between the pre-test and post-test in the control group. This suggests that the control group did not experience any notable changes in psychological distress states during the study, which is expected as no intervention was applied to this group.

Table 4.15 Descriptive Statistics for Treatment Pre and Posttest for Irrational Beliefs

IPBS	Category	Mean	Std. Dev
Demandingness	Treatment Pretest	24.8333	5.09026
	Treatment Posttest	15.3667	5.76606
LFT	Treatment Pretest	24.95	3.89622
	Treatment Posttest	16.9667	5.14864
Awfulizing	Treatment Pretest	25.6167	4.67159
	Treatment Posttest	16.1167	5.95034
Depreciation	Treatment Pretest	24.7667	4.1205
	Treatment Posttest	15.3833	5.00788

Table 4.15 shows a substantial decrease in mean scores across all four irrational belief domains from pretest to posttest in the treatment group. On average, each category saw a reduction of approximately 8–9 points, indicating a strong and meaningful improvement following the cognitive restructuring intervention. The standard deviations increased slightly in the post-test, suggesting greater variability in how participants responded to the treatment, which is common in behavioral interventions.

Table 4.16 t-test Results for Treatment Group

						95% Confidence Interval of the Difference	
IPBS	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**	**Lower**	**Upper**
Demandingness	11.202	118	0.000	9.467	0.845	7.793	11.14
LFT	10.134	118	0.000	7.983	0.788	6.423	9.543
Awfulizing	10.677	118	0.000	9.500	0.890	7.738	11.261
Depreciation	12.487	118	0.000	9.383	0.751	7.895	10.871

Table 4.16 presents the t-test results for the treatment group, comparing their pre-test and post-test scores for demandingness, LFT, awfulizing and depreciation. The p-values for demandingness, LFT, awfulizing and depreciation ($p = 0.000$, $p=0.000$; $p=0.000$; $p=0.000$ respectively) indicate that the observed reductions in scores from pre-test to post-test are statistically significant. The p-values are less than 0.05 hence significant. These results imply that the treatment was effective in significantly reducing demandingness, LFT, awfulizing and depreciation scores. The results strongly support the effectiveness of the treatment (cognitive restructuring) in reducing irrational beliefs.

Notably, after treatment, a larger number of teachers shifted to the low demandingness category, indicating a positive impact from the intervention efforts. Encouragingly, there was an improvement in the Treatment Posttest group, with a notable shift towards the Low LFT category. The results in this group further reinforced the effectiveness of the intervention. A majority of teachers were classified within the Moderate range, with a significant portion also found in the Low range, and a smaller group in the High range. Similarly, the intervention led to a noticeable shift in depreciation category, with many teachers moving to the Low depreciation category. In general the data indicates that interventions had a positive impact, particularly noticeable in the Treatment Posttest groups, where more teachers were found in the Low category compared to their pretest counterparts. These findings underscore the need for psychological support and training in rational emotive behavior techniques among teachers, especially in high-pressure environments like those in secondary schools.

These results were in line with those of Mills, Reiss and Dombeck (2019) who noted that, Cognition restructuring is a very effective therapeutic strategy that has been adopted to help people deal with a wide range of stressful events and circumstances. Also, a study by Madu (2020) found that cognitive restructuring reduced depression tendencies among Nigerian college students. These results also conquer with those of Horan (2016) who investigated the effects of cognitive reorganization via computer on self-esteem as mediated by reason and found that cognitive reorganization was effective in encouraging high self-esteem.

In line with these results, In Turkey, a study done by Şahin and Türk (2021) focused on examining the impact of a cognitive-behavioral group psycho-education program on psychological resilience, irrational beliefs, and well-being among high school students. The study revealed a notable increase in psychological resilience levels and a decrease in irrational

belief levels among students who underwent the cognitive-behavioral psycho-education program. These results support that cognitive restructuring is significant in reducing irrational beliefs.

4.4.5 Effectiveness of Cognitive Restructuring on Psychological Distress

To assess the effectiveness of cognitive restructuring on psychological distress, the study compared participants' levels of depression, anxiety, and stress before and after the intervention period. These measures were assessed using a standardized psychological distress scale, and scores were recorded for both the control group (which received no intervention) and the treatment group (which underwent cognitive restructuring). The analysis begins with an examination of the control group, providing baseline data on how psychological distress levels changed over time in the absence of therapeutic intervention. Descriptive statistics for this group are presented below to illustrate any natural fluctuations that may have occurred independently of the cognitive restructuring treatment.

Table 4.17 Descriptive Statistics for Control Pre and Posttest for Psychological Distress

		Mean	Std. Dev
Depression	Control Pretest	15.2833	3.9147
	Control Posttest	15.2833	3.3349
Anxiety	Control Pretest	15.5000	3.6661
	Control Posttest	15.4167	3.2222
Stress	Control Pretest	15.8500	3.5021
	Control Posttest	15.4500	3.6704

The descriptive statistics for the control group's psychological distress levels reveal minimal changes between the pre-test and post-test periods. The mean score for depression remained exactly the same at 15.28, suggesting no observable change in depressive symptoms among

participants. Anxiety showed a negligible decrease from a mean of 15.50 to 15.42, while stress declined slightly from 15.85 to 15.45. These minor differences, all well below one point, indicate that the control group did not experience any meaningful variation in psychological distress throughout the study. Additionally, the standard deviations remained relatively consistent, reinforcing the stability of distress levels in the absence of any intervention.

The t-test was conducted in this study to assess the statistical significance of the differences observed in psychological distress measures between two groups: one group that received the cognitive restructuring intervention and another that did not. In this case, it was used to determine if the mean differences in depression, anxiety, and stress scores between the control group and the treatment group were statistically significant. The t-values were calculated by comparing the mean differences to their standard errors, and the degrees of freedom were used to determine the appropriate t-distribution. The resulting p-values were used to determine the level of statistical significance, with lower p-values indicating stronger evidence of a real effect.

The findings on the effect of Cognitive restructuring on psychological distress among the respondents are represented in Table 4.18 below.

Table 4.18 Effect of Cognitive Restructuring on Psychological Distress

						95% Confidence Interval of the Difference	
	t	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**	**Lower**	**Upper**
Depression	0.000	118	1.000	0.000	0.664	-1.314	1.314
Anxiety	0.132	118	0.895	0.083	0.63	-1.164	1.331
Stress	0.611	118	0.543	0.400	0.655	-0.896	1.696

Table 4.18, presents the t-test results for the control group, comparing their pre-test and post-test scores for depression, anxiety, and stress. The p-values of ($p = 1.000$, $p = 0.083$ and $p = 0.400$ respectively) imply that there were no significant changes in depression, anxiety and stress scores between the pre-test and post-test in the control group. This suggests that the control group did not experience any notable changes in psychological distress states during the study, which is expected as no intervention was applied to this group.

Table 4.19 Descriptive Statistics for Treatment Pre and Posttest for Psychological Distress

		Mean	Std. Dev
Depression	Treatment Pretest	14.9333	3.83943
	Treatment Posttest	5.2	3.70433
Anxiety	Treatment Pretest	15.2167	3.61771
	Treatment Posttest	5.3667	4.04201
Stress	Treatment Pretest	15.6	3.48459
	Treatment Posttest	4.55	3.05001

The treatment group exhibited dramatic reductions in all three indicators of psychological distress between the pre-test and post-test assessments. Depression scores dropped by nearly 10 points, anxiety by approximately 9.85 points, and stress by over 11 points on average. The consistent decline across all dimensions, paired with maintained standard deviations, indicates that participants experienced uniform improvements in psychological well-being following the treatment.

Table 4.20 t-test Results for Treatment Group

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Depression	14.132	118	0.000	9.733	0.689	8.369	11.097
Anxiety	14.065	118	0.000	9.85	0.700	8.463	11.236
Stress	18.483	118	0.000	11.05	0.598	9.866	12.233

Table 4.20 presents the t-test results for the treatment group, comparing their pre-test and post-test scores for depression, anxiety, and stress. The p-values for depression, anxiety and stress (p=0.000; p=0.000; p=0.000 respectively) indicate that the observed reductions in scores from pre-test to post-test are statistically significant. The p-values are less than 0.05 hence significant. These results imply that the treatment was effective in significantly reducing depression, anxiety, and stress scores. The results strongly support the effectiveness of the treatment (cognitive restructuring) in reducing psychological distress. Notably, the treatment group showed a marked improvement in depression levels during the posttest phase, with a significant increase in the number of teachers classified as having normal levels of depression compared to the pretest. In contrast, the control group exhibited only a marginal change in this category from pretest to posttest. Similarly, the treatment posttest results indicated substantial improvement in anxiety levels, with a notable increase in the number of teachers reporting normal anxiety levels compared to the pretest.

The control group showed little change, with only a slight increase in the number of teachers in the Normal category. The treatment group also experienced a significant positive shift in stress levels, with a considerable rise in the number of teachers classified in the Normal stress category

during the posttest. Meanwhile, the control group showed only a minor change in the same category from pretest to posttest. This implies that cognitive restructuring serves as a powerful therapeutic approach to alleviating psychological distress among secondary school teachers, effectively helping them reframe negative thought patterns and manage stressors associated with their profession. The uniform improvement across all three dimensions of psychological distress (depression, anxiety, and stress) suggests that this intervention addresses a broad spectrum of mental health symptoms.

These results concur with those of Ghanbari-Homayi (2019) who found that Cognitive-behavioral treatment reduces psychological distress in mothers of premature newborns. These results were also in line with those of Mills, Reiss and Dombeck (2019) who noted that, Cognition restructuring is a very effective therapeutic strategy that has been adopted to help people deal with a wide range of stressful events and circumstances. Also, a study by Madu (2020) found that cognitive restructuring reduced depression tendencies among Nigerian college students.

In line with these findings, Leung, Chiang, Chui, Mak, and Wong (2019) evaluated effectiveness of a short cognitive behavioral treatment to alleviate the stress experienced by Hong Kong's secondary school teachers. Three to four weeks after the initial measurements, those in the intervention groups reported considerably lower levels of role stress, personal strain, and total work-related stress when compared to the control group. On the same note, Sogolo, Aluede and Afen- Akpaida (2022) investigated the efficacy of cognitive restructuring and in alleviating test anxiety among students in public secondary schools in Benin City, Nigeria. The results of the study indicated that cognitive restructuring significantly reduced test anxiety scores among secondary school students.

Additionally, the results concur with those of Hu et al. (2018) who evaluated the impact of metaphorical cognitive restructuring on alleviating psychological distress in a randomized controlled trial involving 120 participants. Results demonstrated that participants in the intervention group experienced significant reductions in psychological distress and irrational beliefs, with improvements sustained at a three-month follow-up. These results prove that cognitive restructuring is significant in reducing psychological distress. The convergence of these results with existing literature underscores the intervention's effectiveness and supports its broader implementation as a practical, evidence-based method to mitigate psychological distress in educational settings and beyond.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter contains the summary of findings, conclusions and recommendations drawn from the study.

5.2 Summary of Findings

The results are summarized in the following sections in accordance with the objectives.

5.2.1 Levels of Psychological Distress among Secondary School Teachers

The study established moderate levels of psychological distress among secondary school teachers in Kiambu County. Using the Depression, Anxiety, and Stress Scale-21 Items (DASS-21), the results indicated that a significant proportion of participants were classified in the moderate category for all three variables: 50.5% for depression, 61.7% for anxiety and 25.2% for stress. While these findings underscore the widespread mental health challenges faced by teachers in this region, the study established that there were no cases of severe depression, stress and anxiety. These implies the need for preventive measures and early interventions to prevent the mild and moderate cases from progressing to clinical stages There is also need for awareness creation on mental health among the teachers to enhance proper self-care and early help seeking.

5.2.2 Types of Irrational Beliefs Held by Secondary School Teachers

The study also sought to identify the types of irrational beliefs among secondary school teachers using the Irrational Performance Beliefs Inventory (iPBI). Majority of participants were categorized in the "moderate" category across all subscales: 60.7% for Demandingness, 60.7%

for Low Frustration Tolerance (LFT), 74.8% for Awfulizing, and 68.2% for Depreciation. These results highlight the widespread occurrence of irrational beliefs, which may exacerbate psychological distress.

5.2.3 Relationship between Levels of Irrational Beliefs and Psychological Distress

The study established a strong positive correlation between levels of irrational beliefs and psychological distress among teachers. Irrational beliefs showed significant positive correlations with depression, particularly Depreciation ($r = .412$, $p < .01$) and Demandingness ($r = .218$, $p < .01$). Low Frustration Tolerance (LFT) was also significantly correlated with depression ($r = .203$, $p < .01$), while Awfulizing had a weaker but significant association ($r = .131$, $p < .05$). For anxiety, significant correlations were found with Depreciation ($r = .290$, $p < .01$), LFT ($r = .138$, $p < .05$), and Demandingness ($r = .140$, $p < .05$), but Awfulizing was not significantly related ($r = –.028$, $p = .673$). Stress showed only weak correlations with irrational beliefs, with the highest being LFT ($r = .142$, $p < .05$), and no significant associations with Depreciation ($r = .037$, $p = .575$) or Demandingness ($r = .040$, $p = .549$). Overall, irrational beliefs are more strongly associated with depression and anxiety than with stress. Although correlations do not imply cause effect there is need to address such beliefs. The teaching career places high expectations on teachers and may be the reason for such beliefs. Longitudinal research may be needed to establish if the teachers with high irrational beliefs develop psychological distress, a limitation of this study.

5.2.4 Effectiveness of Cognitive Restructuring on Irrational Beliefs

The cognitive restructuring intervention was found to be highly effective in reducing irrational beliefs. T-test results for irrational beliefs showed significant reductions across all subscales ($p < 0.001$). These findings confirm that cognitive restructuring is an effective intervention for mitigating irrational beliefs.

5.2.5 Effectiveness of Cognitive Restructuring on Psychological Distress

The cognitive restructuring intervention was found to be highly effective in reducing psychological distress. Results from t-tests demonstrated significant reductions in depression, anxiety, and stress scores among participants in the treatment group ($p < 0.001$). These findings confirm that cognitive restructuring is an effective intervention for mitigating psychological distress.

5.3 Conclusions

The study reveals a substantial prevalence of psychological distress among secondary school teachers in Kiambu County, with a majority experiencing symptoms of depression, anxiety, and stress at mild to moderate levels. Anxiety emerged as the most prominent concern, followed closely by depression, highlighting the urgent need for mental health support within this professional group. Stress levels, while somewhat more balanced, still affect a significant portion of teachers, particularly those in mid-career stages.

Demographic factors such as gender, age, and years of employment play a crucial role in the manifestation of psychological distress and irrational beliefs. Female teachers, middle-aged educators, and those with longer years of service reported higher levels of distress and

maladaptive cognitive patterns. This underscores the importance of tailoring mental health interventions to address the specific vulnerabilities associated with these groups.

The prevalence of irrational beliefs such as demandingness, low frustration tolerance, awfulizing, and depreciation was moderate among teachers, suggesting these cognitive distortions contribute to their psychological distress. Notably, strong positive correlations were found between irrational beliefs and symptoms of depression and anxiety, indicating that these maladaptive thoughts significantly exacerbate teachers' mental health challenges.

Importantly, cognitive restructuring was demonstrated to be highly effective in reducing both irrational beliefs and psychological distress. Teachers who participated in the cognitive restructuring intervention exhibited significant improvements in depression, anxiety, and stress, alongside reductions in maladaptive beliefs. These findings affirm cognitive restructuring as a powerful therapeutic approach for enhancing psychological well-being in educational settings.

5.4 Recommendations of the Study

Based on the findings of this study, the following recommendations are proposed to address the high levels of psychological distress and irrational beliefs among secondary school teachers and to enhance the effectiveness of cognitive restructuring interventions;

Schools should consider implementing cognitive restructuring programs for teachers to help them manage psychological distress effectively. These programs can be integrated into professional development workshops or offered as standalone training sessions, equipping teachers with the tools to address stress, anxiety, and depression. The study recommends relevant interventions to address the mild and moderate levels of psychological distress as well as the irrational beliefs. Interventions that involve cognitive restructuring such as cognitive behavioral

therapies are recommended. There is need for screening and awareness creation for mental illness/mental health

Educational policymakers should prioritize the incorporation of mental health support mechanisms into existing policies and guidelines for secondary school teachers. This may involve revising workplace policies to focus on mental health and well-being, as well as allocating resources to ensure the successful implementation of mental health programs in schools. Furthermore, the Ministry of Education should play a central role by integrating mental health and well-being programs into school policies. Regular mental health screenings, similar to the use of the Depression, Anxiety, and Stress Scale (DASS 21), should be conducted to identify teachers in need of targeted interventions. These measures, collectively, can create a supportive environment that promotes the well-being and productivity of teachers in secondary schools.

Need for prevention measures for depression, stress and anxiety.

5.5 Suggestions for Further Research

The researcher recommends further research in the following areas to address the limitations of this study.

i. Expand the scope of research to include primary school teachers, private school educators, and non-teaching school staff to understand the broader applicability of cognitive restructuring programs across various educational settings.
ii. Investigate the levels of psychological distress and the effectiveness of cognitive restructuring interventions in different regions or counties to identify regional variations and context-specific factors influencing mental health among teachers.

iii. Examine the efficacy of alternative mental health interventions, such as mindfulness-based stress reduction, peer mentoring programs, or technology-based solutions like mental health apps, in reducing psychological distress among teachers.

iv. Longitudinal studies to establish if the irrational beliefs lead to psychological distress

v. Other interventional studies for depression, stress and anxiety

REFERENCES

Adeniyi, M. S., Gboyega, E. A., & Ajoke, T. O. (2018). Demographic factors influencing psychological distress among health professionals in Ogun State. *Covenant International Journal of Psychology, 3* (2), 11-19.

Adina, J. O. (2017). Effect of cognitive behavioural therapy on clinical depression, ART adherence and HIV stigma among HIV-infected outpatients in Uasin-Gishu County, Kenya. Unpublished Doctoral Thesis, Egerton University

Agahheris, M., Ezzati, K., Dousti, A., & Pallooji, A. (2019). Effectiveness of cognitive-behavior training on modifying self and other-deception among females with irrational beliefs. *International Journal of Applied Behavioral Sciences, 6*(2), 10-18.

Ahmad, A., Passage, J., & Hanson-DeFusco, J. (2017). Psychological health of Afghan refugees: A narrative review of key factors in pre-migration and post-migration. *International Journal of Migration Studies*, 19(3), 234–250.

Ahmed, R. M., & Noor, S. (2019). Impact of Teacher Beliefs on Inclusive Education Practices in Secondary Schools. *International Journal of Special Education*, 34(1), 43-57.

Ahmed, R., & Khurana, S. (2023). The impact of irrational beliefs on classroom management strategies: A study of middle school teachers. *Journal of Educational Leadership and Practice*, 18(3), 142–160.

Amoke, C. V., Ede, M. O., Nwokeoma, B. N., Onah, S. O., Ikechukwu-Ilomuanya, A. B., Albi-Oparaocha, F., Nweze, T. (2020). Effects of group cognitive-behavioral therapy on psychological distress of awaiting-trial prison inmates. *Medicine, 99* (17), e18034.

Ansley, B. M., Houchins, D. E., & Varjas, K. (2019). Workplace stressors and psychological distress in special education teachers. *Journal of Special Education, 52*(1), 3-13.

Artiran, M., Şimşek, O. F., & Turner, M. (2019). Mediational role of rumination and reflection on irrational beliefs and distress. *Behavioural and Cognitive Psychotherapy*, *47*(6), 659-671.

Asa, F. T., & Lasebikan, V. O. (2016). Mental health of teachers: Teachers' stress, anxiety and depression among secondary schools in Nigeria. *International Neuropsychiatric Disease Journal, 7*(4), 1-10.

Baardseth, T. P., Goldberg, S. B., Pace, B. T., Wislocki, A. P., Frost, N. D., Siddiqui, J. R., ... & Wampold, B. E. (2013). Cognitive-behavioral therapy versus other therapies: Redux. *Clinical psychology review*, *33*(3), 395-405.

Bano, S., Salahuddin, Z., Choudhry, S. A., & Javed, M. R. (2023). Cognitive decline and psychological distress in chronic cardiovascular patients: The interplay of mental health, cognition, and disease severity. *Cureus*. *8*(8), 70-88.

Baraza, O. T., Simatwa, E., & Gogo, J. O. (2016). Levels of stress among secondary school teachers and its implication on students' academic performance in Kenya: A case study of Kakamega North sub-County. *Greener Journal of Educational Research, 6* (2), 52-66.

Bartucz, M. B., & David, D. O. (2019). Irrational beliefs at country level functioning: A cross-cultural extension of the cognitive-behavioral model. *Journal of Evidence-Based Psychotherapies*, *19*(1), 1-26.

Bayeh, R., & Ryder, A. G. (2019). Neurodiversity, minority status, and mental health: A quantitative study on the experiences of culturally diverse university students in Canada. *Autism in Adulthood*.

Beck, A. (2018). Albert Ellis. *Systems of Psychotherapy: A Transtheoretical Analysis*, *237*.

Bermejo-Toro, L., & Prieto-Ursúa, M. (2006). Teachers' irrational beliefs and their relationship to distress in the profession. *Psychology in Spain, 10*(1), 88-96.

Besser, A., Lotem, S., & Zeigler-Hill, V. (2022). Psychological stress and vocal symptoms among university professors in Israel: implications of the shift to online synchronous teaching during the COVID-19 pandemic. *Journal of voice*, *36*(2), 291-e9.

Boham, E. A. (2020). *Effects of Assertiveness Training and Cognitive Restructuring on Low Self-Esteem and Depressive Disorders Among Students of Technical Universities in Southern Ghana* (Doctoral dissertation, University of Cape Coast).

Branson, V. (2019). *The Adolescent Distress-Eustress Scale: Designing, Evaluating, and Utilising a Holistic Measure of Adolescent Stress* (Doctoral dissertation).

Brown, A. R., & Smith, T. J. (2019). Examining the prevalence of irrational beliefs among secondary school teachers and its impact on teacher-student relationships. *Educational Research Quarterly*, 43(1), 67–84.

Brown, A., & Singh, V. (2022). Workplace discrimination and its impact on psychological distress among racial and ethnic minorities. *Journal of Occupational Health Psychology*, 27(2), 134–150.

Capone, V., & Petrillo, G. (2020). Mental health in teachers: Relationships with job satisfaction, efficacy beliefs, stress, and depression. *Current Psychology,* 39(2), 478–489.

Capparelli, E., Iacovantuono, M., Cristiano, I., Triggianese, P., Conigliaro, P., Greco, E., ... & Chimenti, M. S. (2024). AB0316 Movement-Avoidance Behaviour in Osteoporotic Patients: Could Major Bone Fractures Lead to Inactivity and Poor Quality of Life? *Journal of Psychology*, 4 (3) 1401-1420

Cezar-Vaz, M.R., Bonow, C.A., de Almeida,M.C., Rocha, L.P., & Borges, A.M. (2015). Mental health of elementary schoolteachers in Southern Brazil: Working conditions and health consequences. *Scientific World Journal, Article ID 825925,* 1-6.

Chadha, N. (2024). Gender and peace of mind: Exploring correlational dynamics. *Journal of Interdisciplinary Approaches in Psychology*, 12(3), 67-89.

Chebet, C. (2018, December 8). Ex-addict's mission to help teachers stay off the bottle. *Standard Newspaper*, Retrieved from https://www.standardmedia.co.ke/article/2001305484/teachers-battling-addiction

Chen, X., & Li, H. (2021). Teacher cognitions and classroom stress: The role of irrational beliefs. *Teaching and Teacher Education*, 102, 103041.

Chowdhury, S., Islam, M., & Ahmed, R. (2019). Psychological distress among garment workers: The role of demographics. *Bangladesh Journal of Mental Health*, 21(4), 412–425.

Chung, G. K. K., Lee, W., Vargas, D. C., & Sharma, B. (2020). Cardiovascular risk profiling among South Asian adults in Hong Kong: A latent class analysis. *International Journal for Equity in Health*, *7*(4), 102-118.

Clark, D. A. (2018). Cognitive restructuring. In D. Dozois (Ed), *The Wiley Handbook of Cognitive Behavioral Therapy*, John Wiley & Sons.

Cohen, E. (2021). *Cognitive Behavior Interventions for Self-Defeating Thoughts: Helping Clients to Overcome the Tyranny of "I Can't"*. Routledge.

Collie, R. J., & Martin, A. J. (2019). Psychological distress and teaching efficacy among Canadian educators. *Educational Psychology, 39*(2), 203-217.

Crum, J. (2021). Understanding mental health and cognitive restructuring with ecological neuroscience. *Frontiers in Psychiatry*, *12*, 697095. doi: 10.3389/fpsyt.2021.697095.

Cunningham, J., & Paradies, Y.C. (2012). Socio-demographic factors and psychological distress in Indigenous and non-Indigenous Australian adults aged 18-64 years: Analysis of national survey data. *BMC Public Health* 12(95), 1-15.

Curtiss, J. E., Levine, D., Ander, I, & Baker, A. (2021). Cognitive-behavioral treatments for anxiety and stress-related disorders. *Focus, 19* (2), 184–189. https://doi.org/10.1176/appi.focus.20200045

David, D., Cotet, C., Matu, S., Mogoase, C., & Stefan, S. (2018). 50 years of rational-emotive and cognitive-behavioral therapy: A systematic review and meta-analysis. *Journal of clinical psychology*, *74*(3), 304-318.

David, O. A., Cardoș, R. A., & Matu, S. (2019). Changes in irrational beliefs are responsible for the efficacy of the RET hink therapeutic game in preventing emotional disorders in children and adolescents: Mechanisms of change analysis of a randomized clinical trial. *European Child & Adolescent Psychiatry, 28*, 307-318.

Dearman, A., Bao, Y., Schalkwyk, L., & Kumari, M. (2021). Serum proteomic correlates of mental health symptoms in a representative UK population sample. *Brain, Behavior, & Immunity*, *4*(2), 11-28.

Delavarpour, M. A., & Milani, B. A. (2024). Explaining students' academic procrastination based on attachment style: Determining the mediating role of psychological well-being. *Journal of New Thoughts in Education*, 16(2), 211-225.

Desouky, D., & Allam, H. (2017). Occupational stress, anxiety and depression among Egyptian teachers. *Journal of Epidemiology & Global Health, 7*(3), 191-198. doi: 10.1016/j.jegh.2017.06.002.

Dorsey, S., Lucid, L., Martin, P…. Whetten K. (2020). Effectiveness of task-shifted trauma-focused cognitive behavioral therapy for children who experienced parental death and posttraumatic stress in Kenya and Tanzania: A randomized clinical trial. *JAMA Psychiatry, 77*(5), 464-473.

Driscoll, M. A., Edwards, R. R., Becker, W. C., Kaptchuk, T. J., & Kerns, R. D. (2021). Psychological interventions for the treatment of chronic pain in adults. *Psychological Science in the Public Interest, 22*(2), 52-95.

Duru, E., & Balkis, M. (2020). Childhood Emotional Maltreatment and Adult Psychological Distress Symptoms: The Role of Irrational and Rational Beliefs. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 38(4), 556-573.

Duxbury, L., & Higgins, C. (2013). *The 2011/12 national study on balancing work, life and caregiving in Canada: The situation for Alberta teachers*. Alberta Teachers' Association.

Ellis, A. (1994). *Reason and emotion in psychotherapy*. New York: Birch Line Press.

Eseadi, C., Ihebuzoaju, A., Ogbuabor, S., & Ikechukwu-Ilomuanya, A. (2016). Effects of cognitive restructuring intervention program of rational-emotive behavior therapy on adverse childhood stress in Nigeria. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 34. Doi: 10.1007/s10942-015-0229-4

Ezegbe, B. N., Ede, M. O., Eseadi, C., & Nwaubani, O. O. (2018). Effect of music therapy combined with cognitive restructuring therapy on emotional distress. *Medicine,* 97(34).

Fadhli, T., & Situmorang, D. D. B. (2021). Implementation of cognitive behavioral therapy with cognitive restructuring technique to reduce psychosocial anxiety in the COVID-19 outbreak. *Addictive Disorders & Their Treatment*, *20*(4), 268-277.

Friedman, H. H. (2023). Critical thinking, cognitive distortions, and logical reasoning: A guide for those who want to empower their minds. *Cognitive Distortions, and Logical Reasoning: A Guide for Those Who Want to Empower Their Minds (December 31, 2023)*.

Gelaye, B., Lemma, S., & Deyassa, N. (2022). Prevalence and correlates of mental distress among working adults in ethiopia. *Clinical Practice* and *Epidemiology* in *Mental Health*, 8, 126-33. doi: 10.2174/1745017901208010126.

Gkontelos, A., Vaiopoulou, J., & Stamovlasis, D. (2021). Teachers' Irrational Belief Scale: psychometric properties of the Greek version and measurement invariance across genders. *Behavioral Sciences, 11*(11), 160. doi: 10.3390/bs11110160.

Gonzalez, H. M., Tarraf, W., & Whitfield, K. E. (2018). Race, ethnicity, and mental health disparities among older adults. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 73(7), 1246–1255.

Gonzalez, P., & White, M. (2019). The cognitive underpinnings of teacher stress: Irrational beliefs and emotional exhaustion. *Journal of Educational Research*, 112(5), 511–522.

González-Tovar, J., Sanabria-Camacho, M. I., & Hernández-Montaño, A. (2024). Self-Regulatory Diet as a Protective Factor for Health in Adolescent Women. In *The Role of Nutrition in Integral Health and Quality of Life* (pp. 61-82). Apple Academic Press.

Habigzang, L.F., Schneider, J.A., Frizzo, R.P., & de Freitas, C.P. (2018). Evaluation of the impact of a cognitive-behavioral intervention for women in domestic violence situations in Brazil. *Universitas Psychologica, 17*(3), 1-11.

Hasan, N., & Bao, Y. (2020). Impact of "e-learning crack-up" perception on psychological distress among educators and students during the COVID-19 pandemic: A mediating role of "fear of academic year loss." *Children and Youth Services Review, 118, 105425*

Hashimi, A. S., Azami, H., & Mosawi, S. H. (2019). Prevalence and associated factors of psychological distress among male schoolchildren in Helmand Province, Afghanistan. *Afghan Journal of Social Sciences and Development*.

Holman, D., Johnson, S., & O'Connor, E. (2018). Stress management interventions: Improving subjective psychological well-being in the workplace. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of Well-Being*. Salt Lake City, UT: DEF Publishers.

Hsu, N. M. H., Chen, Y. Y., Chang, S. S., Chi, Y. C., & Wu, K. C. C. (2024). The relationship between normative beliefs towards suicide and support for suicide prevention in Taiwan: addressing suicide as human rights, individual choice, or irrationality. *International Review of Psychiatry*, 1-11.

Hu, J., Zhang, W., Zhang, J., Yu, F., & Zhang, X. (2018). The brief intervention effect of metaphorical cognitive restructuring on alleviating mental distress: A randomised controlled experiment. *Applied Psychology: Health and Well-Being*, 10(3), 414-433.

Idowu, A.S. (2021). Effectiveness of cognitive-restructuring counselling-technique in managing psychological-distress among women-with infertility-challenges. *Academia Letters, Article 1368*. https://doi.org/10.20935/AL1368

Ipek, H., Akçay, A., Atay, S. Berber, G., Karalik, T., & Yilmaz, T. (2018). The relationship between occupational stress and teacher self-efficacy: A study with EFL instructors. *Anadolu Journal of Educational Sciences International, 8*(1), 126-150.

Irfan, A., Khan, A. W., Zahid, A., Abid, A., & Faqir, A. (2024). Exploring the Interplay: Analyzing the Relationship between Spirituality and Superstition in Psychosocial Dynamics. *Suffa Journal of Interdisciplinary Psychology, 1*(1), 1-29.

Islam F. (2019). Psychological distress and its association with socio-demographic factors in a rural district in Bangladesh: A cross-sectional study. *PloS one*, *14*(3), e0212765. https://doi.org/10.1371/journal.pone.0212765

Javanmardnejad, S., Bandari, R., Heravi-Karimooi, M., Rejeh, N., Sharif Nia, H., & Montazeri, A. (2021). Happiness, quality of working life, and job satisfaction among nurses working in emergency departments in Iran. *Health and Quality of Life Outcomes, 19*, 1-8.

Johnson, L., & Patel, S. (2019). Ethnicity, acculturation stress, and psychological distress among North American immigrants. *International Journal of Cross-Cultural Psychology*, 31(4), 320–335.

Jones, P. L., & Carter, M. S. (2022). Irrational beliefs and inclusive education: Implications for teacher attitudes and practices. *International Journal of Inclusive Education*, 26(4), 389–406.

Kanwal, F., Hira, A., Sarki, I. H., & Majeed, A. (2022). The role of spirituality in alleviating psychological distress among university students: Exploring meaning in life as a mediator. *Journal of Psychology and Social Studies*.

Keyes, K. M., Gary, D., & Ogburn, E. (2017). Neighborhood deprivation and psychological distress: A demographic perspective. *Social Science & Medicine*, 190, 68–76.

Khan, A., & Zeb, I. (2017). *Cognitive-Behavioral Paradigms in Emotional Regulation: The Impact of Irrational Beliefs on Psychological Distress.* International Journal of Teaching and Learning Science, 11(2), 89-103.

Kim, J., & Park, S. (2021). Aging, retirement, and psychological distress in South Korea: Exploring the role of gender and marital status. *Korean Journal of Gerontology and Mental Health*, 39(7), 587–600.

Kimama, R. C., Onyango, G. A., & Mungai, J. G. (2024). Effects of teachers' stress and stress on their professional performance in public secondary schools in Kenya. *World Journal of Advanced Research and Reviews, 21*(2), 705–712.

Komasi, S., Saeidi, M., Zakiei, A., Amiri, M. M., & Soltani, B. (2017). Cognitive restructuring based on metaphor therapy to challenge the irrational beliefs of drug addicts undergoing buprenorphine treatment. *International Journal of High Risk Behaviors and Addiction, 6*(1).

Kuyken, W., Padesky, C. A., & Dudley, R. (2011). *Collaborative case conceptualization: Working effectively with clients in cognitive-behavioral therapy*. Guilford Press.

Larimer, M. E., Palmer, R. S., & Marlatt, G. A. (2004). Relapse prevention: An overview of Marlatt's cognitive-behavioral model. *Psychosocial treatments*, 1-18.

Lauer, E. A. (2017). Teasing apart the complex relationship between psychological distress, mental health conditions, social factors, and disability in the United States. Unpublished PhD dissertation, The State University of New Jersey. Retrieved from: https://pdfs.semanticscholar.org/ddc5/8c3e78eaee66f7ffe3a613764d3aeb01e587.pdf

Leahy, R. L. (2017). *Cognitive therapy techniques: A practitioner's guide*. Guilford Publications.

Lee, H., Chen, W., & Huang, T. (2020). Urbanization, demographic factors, and mental health: A longitudinal analysis in East Asia. *Asian Journal of Mental Health Studies*, 62(5), 453–470.

Lee, J., & Kim, H. (2020). The influence of irrational beliefs on teacher adaptability during curriculum reform: A longitudinal study. *Asia-Pacific Journal of Teacher Education*, 48(3), 257–275.

Lee, S., Kawakami, N., & Li, C. (2019). Cultural predictors of distress among East Asian workers. *Asian Journal of Psychiatry*, 45, 89–95.

Leung, S.K., Chiang, C.L., Chui, Y.Y., Mak, Y.W., & Wong, F.K. (2019). A brief cognitive-behavioral stress management program for secondary school teachers. *Journal of Occupational Health, 53,* 23–35.

Li, W., & Kou, C. (2018). Prevalence and correlates of psychological stress among teachers at a national key comprehensive university in China. *International Journal of Occupational and Environmental Health*, *24*(1-2), 7-16. doi: 10.1080/10773525.2018.1500803.

Madigan, D. J., & Kim, L. E. (2021). The prevalence and impact of stress on teachers' well-being in Australia. *Journal of Educational Psychology*, *113*(4), 641-653.

Mahfar, M. (2018). The mediating role of irrational beliefs in the relationship between activating events and stress among fully residential school teachers in Malaysia. *Malaysian Journal of Learning and Instruction, 15*(2), 45-62.

Maina, G. J. (2015). *Analysis of interventions teachers use to manage learners with selected behaviour disorders in primary schools in Thika Sub-County, Kiambu County, Kenya* (Doctoral dissertation, KENYATTA UNIVERSITY).

Marasigan, P. R. (2019). Using brief cognitive restructuring and cognitive defusion techniques to cope with negative thoughts. *Social Values & Society*, *1*(4), 11-14.

Masath, F.B. (2022). Moderating effect of mental health on the association between teachers' stress and their professional attitude in Tanzania. *Papers in Education and Development, 40*(2), 117-134.

Mayo, S. A., Batool, M. S., & Mehjabeen, M. (2019). Influence of premenstrual syndrome, psychological distress, self-control, and social connectedness among college-aged women. *Contemporary Journal of Social Science, 8*(2), 60-78.

Mbiriri, M. (2023). Anxiety and Psychosocial Challenges among Selected Retired Secondary School Teachers in Ruiru and Juja Sub-County, Kenya. *Kabarak Journal of Research & Innovation, 13*(4), 15-26.

Mbulaheni, V.M., Kutame, A.P., & Mpofu, M. (2017). Teacher mental health promotion in creating quality teaching environments in dysfunctional secondary schools. *The Online Journal of New Horizons in Education, 7*(4), 62-70.

McIntyre, J. C., Worsley, J., & Corcoran, R. (2018). Academic and non-academic predictors of teacher psychological distress: The role of work environment and personal coping. *Journal of Mental Health, 27(5), 457–463.*

Mills, H**.,** Reiss, N., & Dombeck, M. (2019). Cognitive restructuring. Available online at: https://www.cascadementalhealth.org/poc/view_doc.php?type=doc&id=15670&cn=117

Ministry of Education. (2020). *The Basic Education Statistical Booklet 2020*. Retrieved from https://www.education.go.ke/sites/default/files/Docs/The%20Basic%20Education%20Statistical%20Booklet%202020%20%281%29.pdf

Mirzaei-Alavijeh, M., & Parsafar, S. (2020). Socio-economic and demographic factors associated with psychological distress among the elderly. *Journal of Health Research and Therapy*.

Moloudi, A., Arian, H., Mahdavi, M., Madah, F., & Roghaeeh Taghipour, R. T. (2024). Cognitive-behavioral therapy (CBT) in the form of Emotive Behavior Therapy (REBT) Intervention on irrational Beliefs and Anxiety of adolescent girls with social anxiety. *Preventive Counseling, 3*(2), 47-59.

Muiga, F. W., Ombui, K., & Iravo, M. (2016). Effects of work-related stress on teachers' performance in public secondary schools in Kikuyu sub-County, Kenya. *International Journal of Science and Research, 5*(5), 1645-1652.

Nahan, N., Aiswarya, P., Abin, K. S., Sherbin, M., AP, M. S., & Jijith, U. S. (2024). Prevalence and Determinants of Antibiotics Misuse in the Community of Kozhikode, India: A Cross-Sectional Study.

Nakao, M., Shirotsuki, K., & Sugaya, N. (2021). Cognitive-behavioral therapy for management of mental health and stress-related disorders: Recent advances in techniques and technologies. *Biopsychosocial Medicine, 15*(1), 16. doi: 10.1186/s13030-021-00219-w.

Newman, C. F. (2015). Cognitive restructuring/cognitive therapy. *Oxford handbook of cognitive and behavioral therapies*, 118-141.

Newton, G. T. M. K. M. (2022). Effects of Workload on Teacher Stress in Public Secondary Schools in Tharaka Nithi County, Kenya.

Nozizwe, N. (2024). The effectiveness of cognitive-behavioral therapy for treating anxiety disorders in low-resource settings in South Africa. *International Journal of Psychology, 9*(1), 47-59. Doi: 10.47604/ijp.2361

Obimakinde, A.M., Balogun, M.O., & Adeleye, J. et al. (2022). Work-related psychological distress among teachers in southwest Nigeria: a rural and urban comparison. *Occupational Health Southern Africa, 28*(3). https://hdl.handle.net/10520/ejc-ohsa_v28_n3_a4

OECD (2020). Creating effective teaching and learning environments: First results from TALIS. Paris: Organization for Economic Co-operation and Development, Retrieved from: https://www.oecd.org/berlin/43024880.pdf

Okwaraji, F. E., & Aguwa, E. N. (2015). Stress, psychological distress and job satisfaction among secondary school teachers in Enugu, South East Nigeria. *Journal of Psychiatry, 18*(1), 14-66.

O'Meara, S., Doherty, E., & Walsh, K. (2018). Where do we go from here? The personal impact of adverse events and complications in surgeons: Results from a cross-sectional study. *The Surgeon*, 17(2), 112–120.

Onyewuotu, G. N., Salaudeen, T. S., & Ezugwu, G. G. (2024). Influence of irrational belief on academic performance among students in some federal colleges of education in the North-West Zone, Nigeria. *British Journal of Education, 5*(6), 126-148.

Oparaduru, J. O. (2017). *Effectiveness of Cognitive Restructuring and Self-Control on Proneness to Maladaptive Behaviour among selected Senior Secondary School Students in Imo State, Nigeria* (Doctoral dissertation, University of Lagos (Nigeria)).

Othman, Z., & Sivasubramaniam, V. (2019). Depression, Anxiety, and Stress among Secondary School Teachers in Klang, Malaysia. *International Medical Journal, 26*(2), 71-74.

Ozamiz-Etxebarria, N., & Idoiaga Mondragon, N. (2021). Prevalence of anxiety, depression, and stress among teachers during the COVID-19 pandemic: A rapid systematic review with meta-analysis. *Brain Sciences, 11(9), 1172.*

Pan, J.-Y., Ng, P., Young, D. K.-W., & Caroline, S. (2017). Effectiveness of cognitive behavioral group intervention on acculturation: A study of students in Hong Kong from Mainland China. *Research on Social Work Practice*, *27*(1), 68–79.

Patel, M., & Banerjee, T. (2022). Irrational thinking patterns in teachers: Impacts on decision-making and instructional quality. *International Journal of Educational Development*, 87, 102314.

Peele, M., & Wolf, S. (2020). Predictors of anxiety and depressive symptoms among teachers in Ghana: Evidence from a randomized controlled trial. *Social Science & Medicine, 253*, 112957. doi: 10.1016/j.socscimed.2020.112957.

Perryman, J., & Calvert, G. (2019): What motivates people to teach, and why do they leave? Accountability, performativity and teacher retention, *British Journal of Educational Studies*, https://doi.org/10.1080/00071005.2019.1589417, pp. 1–21

Popov, S., Popov, B., & Damjanović, R. (2015). The role of stressors at work and irrational beliefs in the prediction of teachers' stress. *Primenjena Psihologija, 8*(1), 5-23

Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *General psychiatry*, *33*(2).

Ramos, G., Jha, R., & Moreira, A. (2017). Immigrant mental health in Europe: Demographic and employment challenges. *Journal of Migration Studies*, 55(1), 98–110.

Rezaeisharif, A., Karimi, A., & Naeim, M. (2021). Effectiveness of the cognitive restructuring approach on irrational beliefs and hopelessness in individuals with a substance abuse disorder: A randomized controlled trial. *Addictive Disorders & Their Treatment, 20,* 326 – 335.

Rohleder, N. (2019). Stress and inflammation–The need to address the gap in the transition between acute and chronic stress effects. *Psychoneuroendocrinology, 105*, 164-171.

Rojas-Flores, L., Clements, M. L., Hwang Koo, J., & London, J. (2017). Trauma and psychological distress in Latino citizen children following parental detention and deportation. *Psychological Trauma: Theory, Research, Practice, and Policy*, *9*(3), 352.

Rosenbaum, M., & Ronen, T. (1998). Clinical supervision from the standpoint of cognitive-behavior therapy. *Psychotherapy: Theory, Research, Practice, Training*, *35*(2), 220.

Şahin, H., & Türk, F. (2021). The impact of cognitive-behavioral group psycho-education program on psychological resilience, irrational beliefs, and well-being. *Journal* of Rational-Emotive and *Cognitive Behavior Therapy,* 39, 672–694.

Salehi, P., & Khezeli, M. (2019). *The Role of Ego Functioning and Irrational Beliefs in Anxiety and Psychological Distress.* Studies on Arabic Language and Literature, 5(1), 95-110.

Salehi, P., & Khezeli, M. (2024). Psychological analysis of caregivers' emotional stress: The role of irrational beliefs. *Studies on Arabic Language and Mental Health, 9*(4), 110-128.

Santarpia, F.P., Bodoasca, E., Cantonetti, G., Ferri, D., & Borgogni, L. (2023). Linking irrational beliefs with well-being at work: The role of fulfilling performance expectations. *Sustainability, 15*, 16463. https://doi.org/10.3390/su152316463

Schleicher, A. (2018). Valuing our teachers and raising their status: How communities can help. Paris: *OECD Publishing*.

Seiiedi-Biarag, L., Mirghafourvand, M., & Ghanbari-Homayi, S. (2019). The effect of cognitive-behavioral therapy on psychological distress in the mothers of preterm infants: A systematic review and meta-analysis. *Journal of Psychosomatic Obstetrics & Gynecology, 2019 Oct 16*, 1-10.

Sharp, J., & Theiler, S. (2018). A review of psychological distress among university students: Pervasiveness, implications, and potential points of intervention. *International Journal for the Advancement of Counselling,* 40(1), 28–41.

Siefert, K., Heflin, C. M., & Williams, D. R. (2018). Poverty, employment, and psychological distress among single mothers. *American Journal of Sociology*, 124(2), 512–534.

Silva, C., & Mendes, F. (2021). Irrational beliefs and teacher stress: A cross-sectional analysis in primary education. *European Journal of Educational Psychology*, 12(2), 105–122.

Sing, N., & Katoch, A. (2017). Study of occupational stress of secondary school teachers. *International Journal of Advanced Education and Research, 2*(4), 28-31.

Skaalvik, E. M., & Skaalvik, S. (2018). Job satisfaction and stress among Norwegian teachers: A longitudinal study. *Teaching and Teacher Education, 76*, 321-330.

Smith, A., Wallace, C., & Martinez, R. (2017). Rural aging and psychological distress: A demographic analysis. *The Gerontologist*, 57(5), 741–753.

Smith, J., Taylor, R., & Jones, M. (2018). The impact of income inequality and demographic variables on psychological distress in urban populations. *Journal of Mental Health and Urban Studies*, 45(3), 245–260.

Smith, P., & Jacobson, R. (2017). Teachers' Cognitive Biases and Their Implications for Student Equity in Urban Schools. *Urban Education Journal*, 52(3), 289-306.

Smith, R. L., & Green, J. K. (2023). Understanding cognitive distortions in educators: A qualitative exploration. *Journal of Educational Psychology*, 115(2), 314–329.

Sogolo, O., Aluede, O., & Afen- Akpaida, J. (2022). Effectiveness of cognitive restructuring and positive reinforcement techniques in the reduction of test anxiety among public secondary school students in Benin city, Nigeria. *Journal of Cognitive Psychotherapy, 36*(1), 87-101.

Ssenyonga, J., & Hecker, T. (2021). Job perceptions contribute to stress among secondary school teachers in southwestern Uganda. *International Journal of Environmental Research and Public Health, 18*(5), 2315. doi: 10.3390/ijerph18052315.

Stallard, P. (2019). *Think good, feel good: A cognitive behavioural therapy workbook for children and young people*. John Wiley & Sons.

Stapleton, P., Garby, S., & Sabot, D. (2020). Psychological distress and coping styles in teachers: A preliminary study. *Australian Journal of Education, 64*(2), 127-146.

Sun, K.S., Lam, T.P., Lam, K.F., Chan, H.Y., Lo, T.L. Chao, D.V., … Lam E.W. (2020) Associations between demographic factors and psychological distress among Chinese residents in Hong Kong: Beyond socioeconomic classes, *Psychology, Health & Medicine, 15,* 1-13.

Sunga, A.B. (2019). Quality of life and stress as correlate to mental health among teachers: Basis for a wellness program. *Asian Journal of Multidisciplinary Studies, 2*(1), 17-30.

Tanhan, F. (2014). An analysis of factors affecting teachers' irrational beliefs. *Educational Sciences: Theory & Practice, 14*(2), 465-470.

Tavakoli Tameh, H., Hosseinsabet, F., & Borjali, A. (2024). The Effectiveness of Cognitive-Behavioral Stress Management Training on Irrational Beliefs and Resiliency of Drug Addicts. *Hospital Practices and Research*, *9*(1), 422-429.

Tibebu, Y. (2019). Effect of group cognitive behavioral therapy in reducing psychological distress among female survivors of domestic violence. Addis Ababa University. 10.13140/RG.2.2.30628.65925

Titheradge, D; Hayes, R; Longdon, B; et al. (2018). Psychological distress among primary school teachers: a comparison with clinical and population samples. *ORE Open Research Exeter*. Retrieved from: http://hdl.handle.net/10871/34240

Tomitaka, S., Kawasaki, Y., Ide, K., Akutagawa, M., Ono, Y., & Furukawa, T. A. (2019). Distribution of psychological distress is stable in recent decades and follows an exponential pattern in the US population. *Scientific Reports, 9,* 1-10.

Traeger, L. (2013). Cognitive restructuring. In: Gellman M.D., Turner J.R. (eds) *Encyclopedia of Behavioral Medicine.* New York: Springer.

Tuettemann, E., & Punch, K. F. (2018). Psychological distress in secondary teachers: Research findings and their implications. *Journal of Educational Administration, 30*(1), 42-54.

Turner, A. K., & Davis, L. J. (2018). Rational-Emotive Behavior Therapy in Teacher Training: Addressing Irrational Beliefs in Educators. *Journal of Teacher Education Research*, 14(2), 155-170.

Turner, M. J., Aspin, G., & Gillman, J. (2019). Maladaptive schemas as a potential mechanism through which irrational beliefs relate to psychological distress in athletes. *Psychology of Sport and Exercise*, *44*, 9-16.

Umija, M.A., Aloka, J.O., & Wachianga, W. O. (2021). Irrational beliefs and stress levels: Evidence among orphaned students in Kenyan secondary schools. *South African Journal of Education, 41*(2), 1-11.

UNESCO International Institute for Capacity Building in Africa. (2023). *Assessment of the psychosocial impact of COVID-19 on teachers, teacher educators and learners and psychosocial support needs in selected Sub-Saharan African countries*. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000387270

Usman, K., Khan, S., & Muhammad, H. (2023). Core self-evaluation, psychological distress, coping strategies, and perceived social support in medical students. *Advance Social Science Journal*, *3*(5), 10-20.

Vazi, M.L., Ruiter, R.A., Van den Borne, B., Martin, G., Dumont, K., & Reddy, P.S. (2018). The relationship between wellbeing indicators and teacher psychological stress in Eastern Cape public schools in South Africa. *SA Journal of Industrial Psychology*, *39*(1), Art. #1042.

Wahed, W. Y. A., & Hassan, S. K. (2017). Prevalence and associated factors of stress, anxiety and depression among medical Fayoum University students. *Alexandria Journal of medicine*, *53*(1), 77-84.

Walton, C. C., Kirby, J., Mckenzie, S., Gao, C., Purcell, R., Rice, S., & Osborne, M. S. A., (2023) Preliminary Investigation into Self-Compassion and Compassion-Based Intervention for Mental Health in the Performing Arts. *Frontiers in Psychology*, *16*, 1512114.

Wambu, G. W., & Fisher, T. A. (2015). School Guidance and Counseling in Kenya: Historical Development, Current Status, and Future Prospects. Journal of Education and practice, 6(11), 93-102.

Wang, L., & Zhou, H. (2020). Cultural Influences on Teachers' Beliefs and Their Effects on Pedagogy in Chinese Secondary Schools. *Asian Journal of Education*, 25(4), 88-101.

WHO (2017). "Depression: let's talk" says WHO, as depression tops list of causes of ill health. Geneva: World Health Organization.

Willson, R., & Branch, R. (2019). *Cognitive behavioural therapy for dummies*. John Wiley & Sons.

Wolgast, M., Lundh, L., & Viborg, G. (2013). Cognitive restructuring and acceptance: An empirically grounded conceptual analysis. *Cognitive* Therapy and Research, 37, 340–351.

Yahaya, I., & Tambuwal, N. A. (2023). Effect of cognitive restructuring counselling techniques in managing Chemistry anxiety among senior secondary school students in Tambuwal Local Government, Sokoto State. *Kashere Journal of Education, 4*(1), 62-71.

Yang, X., Ge, C., Hu, B., Chi, T., & Wang, L. (2009). Relationship between quality of life and occupational stress among teachers. *Public Health*, *12*, 750-755.

Yang, X., Zhang, L., & Zhu, Y. (2020). Psychological distress among teachers during the COVID-19 pandemic: A cross-sectional study in China. *Asian Journal of Psychiatry, 54*, 102-110.

Zeb, I., & Khan, A. (2024). Beyond pedagogy: Relationship of irrational beliefs and psychological distress. *International Journal of Teaching and Learning Science, 6*(5), 17-30.

Zhijuan, Minjie, Xinxin, S., et al. (2023). Efficacy of Cognitive Behavioral Therapy in Managing Stress: A Review. Journal of Counseling Psychology, 70(2), 127-141.

Zhou, S. J., Zhang, L. G., Wang, L. L., Guo, Z. C., Wang, J. Q., Chen, J. C., ... & Chen, J. X. (2020). Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. *European child & adolescent psychiatry*, *29*, 749-758.

APPENDICES

Appendix 1: Informed Consent

Dear Respondent

My name is Grace Wanjiru Gakinya and a Doctor of Philosophy (PhD) student in the department of Psychology of Kenyatta University. I am currently undertaking a study on **Work Related Psychological Distress among Secondary School Teachers in Kiambu County, Kenya** using a counselling technique called **Cognitive Restructuring.** Your participation will help determine the effectiveness of this technique.

You have been asked to take part in this study after your school was sampled for participation. **Please Note** that his study is for educational purposes **ONLY** and will only take **8 sessions** some of which will involve trainings and taking of tests. **ALSO Note** that **ALL** the sessions will be held at Thika high school halls on the set Saturday's dates.

Being a participant in this study is **voluntary** and will be treated **confidentially**. In case of any clarification, please feel free to ask questions. You could also reach out to me directly through **0720830325.**

Please confirm that you have read the above information and accepted to participate in the study voluntarily by putting your signature on the consent form below. You will be given a copy of this consent form.
Thank you very much for your cooperation.
Sincerely
Grace Wanjiru Gakinya

Consent Form

I have read the provided information and understood that this study is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I also understood that confidentiality and anonymity are guaranteed. I have had the opportunity to ask questions. I agree to take part in this study.

Participant's signature _____ Date ____

Researcher's signature _____ Date _____

Appendix 2: Demographic Characteristics

Please answer the following sections by ticking the appropriative answers.

1. What is your gender?

a) Female

b) Male

2. What is your age?

a) Between 18 and 35 years

b) 36 to 45 years

c) 46 to 55 years

d) Over 55 years

3. How many years have you been employed as a teacher?

a) Less than 1 year

b) 2 to 5 years

c) 6 to 10 years

d) Over 10 years

Appendix 3: The Depression, Anxiety and Stress Scale (DASS 21)

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There is no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all - NEVER

1 Applied to me to some degree, or some of the time - SOMETIMES

2 Applied to me to a considerable degree, or a good part of time - OFTEN

3 Applied to me very much, or most of the time - ALMOST ALWAYS

Statement	Never	Sometimes	Often	Almost Always
I found it hard to wind down	0	1	2	3
I was aware of dryness of my mouth	0	1	2	3
I couldn't seem to experience any positive feeling at all	0	1	2	3
I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
I found it difficult to work up the initiative to do things	0	1	2	3
I tended to over-react to situations	0	1	2	3
I experienced trembling (eg, in the hands)	0	1	2	3
I felt that I was using a lot of nervous energy	0	1	2	3
I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
I felt that I had nothing to look forward to	0	1	2	3

I found myself getting agitated	0	1	2	3
I found it difficult to relax	0	1	2	3
I felt down-hearted and blue	0	1	2	3
I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
I felt I was close to panic	0	1	2	3
I was unable to become enthusiastic about anything	0	1	2	3
I felt I wasn't worth much as a person	0	1	2	3
I felt that I was rather touchy	0	1	2	3
I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
I felt scared without any good reason	0	1	2	3
I felt that life was meaningless	0	1	2	3

Appendix 4. Irrational Beliefs Inventory Scale

Beliefs Scale

Here are a set of statements that describe what some people think and believe. Read each statement carefully, and then decide how much you agree or disagree with it by selecting the appropriate response.

1. Beliefs Scale

Here are a set of statements that describe what some people think and believe. Read each statement carefully, and then decide how much you agree or disagree with it by selecting the appropriate response.

Statement	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. I can't stand not reaching my goals	1	2	3	4	5
2. If I face setbacks it goes to show how stupid I am	1	2	3	4	5
3. I can't tolerate it when I fail at something that means a great deal to me	1	2	3	4	5
4. I need my principal to act respectfully towards me	1	2	3	4	5
5. I have to be viewed favorably by people that matter to me	1	2	3	4	5
6. It is appalling if others do not give me chances	1	2	3	4	5
7. If decisions that affect me are not justified, it shows that I am worthless	1	2	3	4	5
8. If I am not given opportunities, then it shows that I am not a worthwhile person	1	2	3	4	5
9. I need others to think that I make a valuable	1	2	3	4	5

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
contribution					
10. I need others to think that I make a valuable contribution	1	2	3	4	5
11. I am a loser if I do not succeed in things that matter to me	1	2	3	4	5
12. I have to be respected by the members of my school	1	2	3	4	5
13. I can't bear not getting better at what I do	1	2	3	4	5
14. I absolutely should not be snubbed by people that matter to me	1	2	3	4	5
15. If my position in my school was not secure, then it would show I am worthless	1	2	3	4	5
16. I can't bear not being given chances	1	2	3	4	5
17. It's awful to not be treated fairly by my peers	1	2	3	4	5
18. It's terrible if the members of my school do not respect me	1	2	3	4	5
19. I must not be dismissed by my peers	1	2	3	4	5
20. I can't stand failing in things that are important to me	1	2	3	4	5
21. It's awful if others do not approve of me	1	2	3	4	5
22. Decisions that affect me must be justified	1	2	3	4	5
23. It would be terrible to be dismissed by my peers	1	2	3	4	5
24. If my competencies did not continually develop and improve, it would show what a failure I am	1	2	3	4	5
25. I can't bear not succeeding in things that are important to me	1	2	3	4	5

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
26. It would be awful if my position in my team was not secure	1	2	3	4	5
27. If others think I am no good at what I do, it shows I am worthless	1	2	3	4	5
28. It's awful if others think I do not make a valuable contribution	1	2	3	4	5

Thank you for completing this questionnaire.

Appendix 5: List of Public Secondary Schools in Thika Town Constituency

List of Public Secondary Schools in Thika Town Constituency	Postal Address
Ngoliba Secondary School	P.O. Box 4544 – 01000 Thika, Kenya
Ndula Secondary School	P.O. Box 1173 – 01000 Thika, Kenya
Thika Girls Karibaribi Secondary School	P.O. Box 7649 – 01000 Thika, Kenya
Maryhill Girls High School	P.O. Box 9 – 01000 Thika, Kenya
Karibaribi Secondary School	P.O. Box 6284 – 01000 Thika, Kenya
Chania High School	P.O. Box 45 – 01000 Thika, Kenya
Gatuanyaga Mixed Day Secondary School	P.O. Box 1210 – 01000 Thika, Kenya
Kimuchu Secondary School	P.O. Box 4772 – 01000 Thika, Kenya
Joytown Secondary School	P.O. Box 1370 – 01000 Thika, Kenya
Queen of Rosary Mixed Secondary School	P.O. Box 7016 – 01000 Thika, Kenya
Thika Garrison Mixed Day Secondary School	P.O. Box 5210 – 01000 Thika, Kenya
Magogoni Secondary School	P.O. Box 4656 – 01000 Thika, Kenya
Komo Secondary School	P.O. Box 5086 – 01000 Thika, Kenya
Chania Girls Secondary School	P.O. Box 2723 – 01000 Thika, Kenya
Munyu Mixed Secondary School	P.O. Box 4008 – 01000 Thika, Kenya
Munyu Girls High School	P.O. Box 1438 – 01000 Thika, Kenya
Kenyatta Secondary School	P.O. Box 3171 – 01002 Thika, Kenya
Thika High School Exam	P.O. Box Private Bag – 01000 Thika, Kenya
St. Paul's Gatuanyaga Secondary School	P.O. Box 4522 – 01000 Thika, Kenya
Broadway High School	P.O. Box 1709 – 01000 Thika, Kenya

Appendix 6: Attendance Lists

Attendance List for Control Group

	Pretest session - 19/8/23		**Post test session -7/10/23**	
Code	**Physical**	**Virtual**	**Physical**	**Virtual**
C01	P		P	
C02	P		A	P
C03	P		P	
C04	P		A	P
C05	P		P	
C06	P		A	P
C07	P		P	
C08	P		P	
C09	P		P	
C10	P		A	P
C11	P		A	P
C12	P		P	
C13	P		P	
C14	P		A	P
C15	P		P	
C16	P		P	
C17	P		A	P
C18	P		P	
C19	P		P	
C20	P		P	
C21	P		P	
C22	P		P	
C23	P		A	P
C24	P		P	
C25	P		P	
C26	P		P	
C27	P		P	
C28	P		P	
C29	P		A	P
C30	P		P	
C31	P		P	
C32	P		P	
C33	P		A	A
C34	P		P	
C35	P		P	
C36	P		A	P
C37	P		A	A
C38	P		P	
C39	P		A	A
C40	P		A	P
C41	P		P	
C42	P		P	
C43	P		P	
C44	P		P	

C45	P		A	P
C46	P		P	
C47	P		P	
C48	P		A	A
C49	P		A	A
C50	P		P	
C51	P		P	
C52	P		A	P
C53	P		P	
C54	P		A	P
C55	P		P	
C56	P		A	A
C57	P		P	
C58	P		P	
C59	P		A	P
C60	P		P	
TOTALS	**60**	**0**	**39**	**15**

Attendance List for Treatment Group

Pre-test and post-test

	Introduction/Pretest session 1 - 19/8/23		Post test session 8 -7/10/23	
Code	**Physical**	**Virtual**	**Physical**	**Virtual**
T01	P		P	
T02	P		P	
T03	P		P	
T04	P		P	
T05	P		A	P
T06	P		P	
T07	P		P	
T08	P		P	
T09	P		P	
T10	P		P	
T11	P		P	
T12	P		A	P
T13	P		P	
T14	P		P	
T15	P		P	
T16	P		P	
T17	P		P	
T18	P		A	P
T19	P		P	
T20	P		P	
T21	P		A	P
T22	P		P	
T23	P		P	
T24	P		P	
T25	P		P	
T26	P		A	P
T27	P		P	
T28	P		P	
T29	P		P	
T30	P		P	
T31	P		P	
T32	P		P	
T33	P		A	A
T34	P		P	
T35	P		P	
T36	P		P	
T37	P		P	
T38	P		P	
T39	P		A	A
T40	P		P	
T41	P		P	
T42	P		P	
T43	P		P	
T44	P		A	P
T45	P		A	P

T46	P		P	
T47	P		P	
T48	P		A	P
T49	P		P	
T50	P		A	A
T51	P		P	
T52	P		P	
T53	P		P	
T54	P		A	A
T55	P		A	A
T56	P		P	
T57	P		P	
T58	P		A	A
T59	P		A	A
T60	P		P	
Totals	**60**	**0**	**45**	**8**

Key:

P: Present A: Absent

Sessions 2 to Session 7

	S2 - 26/8/23		**S3 - 2/9/23**		**S4 - 9/9/23**		**S5 - 16/9/23**		**S6 - 23/9/23**		**S7 - 30/9/23**	
Code	**Ph**	**V**	**Ph**	**V**	**Ph**	**V**	**Ph**	**V**	**Ph**	**V**	**Ph**	**V**
T01	A	P	A	P	A	P	A	P	A	P	A	P
T02	P		P		P		P		P		P	
T03	P		P		P		P		P		P	
T04	P		P		P		P		P		P	
T05	A	P	A	P	P		P		A	P	P	
T06	P		P		A	P	A	P	P		A	P
T07	P		P		P		P		P		P	
T08	A	P	P		P		P		P		P	
T09	P		P		P		P		P		P	
T10	P		P		P		P		P		P	
T11	P		P		P		P		P		P	
T12	P		P		P		P		P		P	
T13	A	P	A	P	A	P	A	P	A	P	A	P
T14	P		P		P		P		P		P	
T15	P		P		P		P		P		P	
T16	A	P	A	P	P		P		A	P	P	
T17	P		P		P		P		P		P	
T18	P		P		A	P	A		P		A	P
T19	P		P		P		P		P		P	
T20	P		P		P		P		P		P	

T21	P		P		A	P	A		P		A	P
T22	P		P		P		P		P		P	
T23	P		P		P		P		P		P	
T24	P		P		P		P		P		P	
T25	P		P		A	P	A	P	P		A	P
T26	P		P		P		P		P		P	
T27	P		P		P		P		P		P	
T28	A	P	A	P	P		P		A	P	P	
T29	P		P		A	P	A	P	P		A	P
T30	P		P		P		P		P		P	
T31	P		P		P		P		P		P	
T32	P		P		P		P		P		P	
T33	P		P		A	P	A		P		A	A
T34	P		P		P		P		P		P	
T35	A	P	A	P	P		P		A	P	P	
T36	P		P		A	P	A	P	P		A	P
T37	P		P		P		P		P		P	
T38	P		P		P		P		P		P	
T39	A	P	A	P	P		P		A	P	P	
T40	P		P		P		P		P		P	
T41	P		P		P		P		P		P	
T42	P		P		P		P		P		P	
T43	P		P		P		P		P		P	
T44	P		P		A	P	A	P	P		A	P
T45	P		P		P		P		P		P	
T46	A	P	A	P	P		P		A	P	P	
T47	P		P		P		P		P		P	
T48	P		P		P		P		P		P	
T49	P		P		P		P		P		P	
T50	A	P	A	P	A	P	A		A	A	A	A
T51	P		P		P		P		P		P	
T52	A	P	A	P	P		P		A	P	P	
T53	P		P		A	P	A		P		A	P
T54	P		P		P		P		P		P	
T55	P		P		P		P		P		P	
T56	A	P	A	P	P		P		A	P	P	
T57	A	P	A	P	A	P	A	P	A	P	A	P
T58	P		P		A	P	A		P		A	A
T59	A	P	A	P	A	P	A		A	A	A	A
T60	P		P		A	P	A		P		A	P
Totals	**48**	**12**	**46**	**14**	**44**	**16**	**45**	**8**	**37**	**13**	**44**	**16**

Key:

Ph: Physical V: Virtual P: Present A: Absent

Appendix 7: Research Authorization from Kenyatta University Graduate School

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: C82/CTY/37158/2016 **Date:** 25th August, 2022

The Director General,
National Commission for Science, Technology & Innovation,
P.O. Box 30623-00100,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MS.GRACE W. GAKINYA REG. NO. C82/CTY/37158/2016

I write to introduce Ms. Gakinya who is a Postgraduate Student of this University. She is registered for a Ph.D. degree programme in the Department of Psychology in the School of Humanities & Social Sciences.

Ms. Gakinya intends to conduct research for Ph.D. thesis entitled, "Effectiveness of Cognitive Restructuring in Mitigating Work Related Psychological Distress among Secondary School Teachers in Kiambu County, Kenya".

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

JL/cao

Appendix 8: Research Licence from NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 116194

Date of Issue: 01/November/2022

RESEARCH LICENSE

This is to Certify that Ms.. GRACE WANJIRU GAKENYA of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kiambu on the topic: EFFECTIVENESS OF COGNITIVE RESTRUCTURING IN MITIGATING WORK RELATED PSYCHOLOGICAL DISTRESS AMONG SECONDARY SCHOOL TEACHERS IN KIAMBU COUNTY, KENYA for the period ending : 01/November/2023.

License No: NACOSTI/P/22/21398

116194

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix 9: Research Authorization from County Commissioner Kiambu County

OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT
COUNTY COMMISSIONER, KIAMBU

Telephone: 066-2022709
Fax: 066-2022644
E-mail: countycommkiambu@yahoo.com
When replying please quote

County Commissioner
Kiambu County
P.O. Box 32-00900
KIAMBU

Ref.No: **ED.12/1(A)/VOL.V/163**

7TH November, 2022

Ms.. Grace Wanjiru Gakinya,
Kenyatta University,
P.O Box 91,
THIKA, KENYA

RE: RESEARCH AUTHORIZATION

Reference is made to National Commission for Science, Technology and Innovation Letter Ref No. **NACOSTI/P/22/21398** Dated **1ST November, 2022.**

You have been authorized to conduct research on "***EFFECTIVENESS OF COGNITIVE RESTRUCTURING IN MITIGATING WORK RELATED PSYCHOLOGICAL DISTRESS AMONG SECONDARY SCHOOL TEACHERS IN KIAMBU COUNTY, KENYA***" The data collection will be carried out in **Kiambu County** for a period ending **1ST November, 2023.**

You are requested to share your findings with the County Education Office upon completion of your research.

Festus Kimeu
FOR: COUNTY COMMISSIONER
KIAMBU COUNTY

Cc National Commission for Science, Technology and Innovation
P.O. Box 30623-00100
NAIROBI

County Director of Education
KIAMBU COUNTY

All Deputy County Commissioners
KIAMBU COUNTY

"Our Youth our Future. Join us for a Drug and Substance free County".

Appendix 10: Research Authorization from County Director of Education Kiambu County

MINISTRY OF EDUCATION

State Department of Early Learning and Basic Education

Telephone: Kiambu (office) 0768 970412

Email directoreducationkiambu@yahoo.com
When replying please quote

COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY
P. O. Box 2300
KIAMBU

KBU/CDE/DEPT/ B/VOL.II

7th November, 2022

Grace Wanjiru Gakinya
Kenyatta University
P.O Box 43844-00100
NAIROBI, KENYA

RE: RESEARCH AUTHORIZATION

Reference is made to NACOSTI letter NACOSTI/P/22/21398 dated 1st November, 2022.

You have been authorized to research on **"Effectiveness of cognitive restructuring in mitigating work related psychological distress among secondary schools' teachers in Kiambu County, Kenya"** for a period ending 1st November, 2023.

Please accord her the necessary assistance. You are requested to share with us a copy of your research findings when you conclude your research.

COUNTY DIRECTOR OF EDUCATION
NOV 2022

AGNES THEURI
For: COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY

MY EDUCATION, MY FUTURE *MY EDUCATION, MY FUTURE*