PREVALENCE AND DETERMINANTS OF MENTAL HEALTH STATUS AMONG PUBLIC SERVANTS IN BENIN CITY, EDO STATE

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DECLARATION

I hereby declare that this project work titled **'PREVALENCE AND DETERMINANTS OF MENTAL HEALTH STATUS AMONG PUBLIC SERVANTS IN BENIN CITY, EDO STATE** was conducted under the supervision of **PROF. A.I. OBI** and has not been submitted anywhere else for the award of a degree or certificate.

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CERTIFICATION

This is to certify that this research study titled '**PREVALENCE AND DETERMINANTS OF MENTAL HEALTH STATUS AMONG PUBLIC SERVANTS IN BENIN CITY, EDO STATE'** was carried out by **ERHABOR BENEDICT OSARODION** with matriculation number **MED1807396** under supervision **PROF. A.I. OBI**, in the Department of Public Health and Community Medicine, School of Medicine, College of Medical Sciences, University of Benin, Benin City, Edo State, Nigeria as part of the requirements for the award of Bachelor of Medicine, Bachelor of Surgery (MBBS) degree.

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DEDICATION

This project is dedicated to the Almighty God, whose unfailing mercies and abundant strength enabled me to successfully complete this work. I also dedicate it to my lovely family, whose moral and financial support have sustained me throughout this journey

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I sincerely thank the Almighty God for His abundant grace, mercy, and strength, which have kept me in good health and sound mind throughout this work, and for granting me the ability to complete it successfully. I also give special thanks to God, for constant intercession, guidance, and maternal care throughout this journey.

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Erhabor Benedict Osarodion

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LIST OF ABBREVIATIONS

ANOVA:	Analysis of Variance
AOR:	Adjusted Odds Ratio
AUD-C:	Alcohol Use Disorders Identification Test–Consumption
BMH:	Brief Mental Health screening tool
CDC:	Centers for Disease Control and Prevention
DASS-21:	Depression, Anxiety, and Stress Scale (21-item version)
DSM-5:	Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
ERI:	Effort-Reward Imbalance model
GAD-2 / GAD-7:	Generalized Anxiety Disorder (2-item or 7-item scale)
HEW:	Health Extension Worker
HPQ:	Health and Work Performance Questionnaire
IES-R:	Impact of Event Scale – Revised
ISI:	Insomnia Severity Index
JDC:	Job Demand-Control model
JD-R:	Job Demands-Resources model
KAP:	Knowledge, Attitude, and Practice
LGA:	Local Government Area
MeHPriC-P:	Mental Health in Primary Care project
MINI:	Mini International Neuropsychiatric Interview
NSPSF:	National Suicide Prevention Strategic Framework
PHC:	Primary Healthcare centre
PHQ-2 / PHQ-9:	Patient Health Questionnaire (2-item or 9-item scale)

PSP:	Public Safety Personnel
PSQI:	Pittsburgh Sleep Quality Index
PTSD:	Post-Traumatic Stress Disorder
R2MR:	Road to Mental Readiness program
SICMS:	Self-Identification as having Common Mental health Symptoms
SURPIN:	Suicide Research and Prevention Initiative
WHO:	World Health Organization

OPERATIONAL DEFINITION OF TERMS

Anxiety: A state characterized by persistent feelings of nervousness, difficulty controlling worry, and significant psychological distress.

Attitude: The emotional or evaluative stance whether favorable, unfavorable, or stigmatizing that public servants hold toward mental health issues and individuals with mental illness.

Burnout: A state of physical or emotional exhaustion resulting from chronic workplace stress that has not been successfully managed

Depression: A serious mental health condition marked by persistent low mood, sadness, and a loss of interest or pleasure in daily activities.

Effort-Reward Imbalance (ERI): A psychological state of stress occurring when the high effort an employee puts into their work is not matched by adequate rewards such as pay, esteem, or career opportunities.

Job Demands: Physical, psychological, social, or organizational aspects of a job (like high workload or deadlines) that require sustained effort and are associated with physiological or psychological costs.

Job Resources: Aspects of the job (such as autonomy and social support) that help achieve work goals, reduce job demands, and stimulate personal growth and development.

Knowledge of Mental Health: The factual understanding and literacy regarding the causes, symptoms, and treatment options for mental health disorders.

Mental Health: Fundamental state of well-being that influences an individual's emotional, psychological, and social functioning and their ability to handle life's pressures.

Prevalence: The proportion or percentage of the public servant population that screens positive for a specific mental health condition (e.g., depression or anxiety) at a given point in time.

Public Servant: Individuals employed in government roles, including those in ministries, agencies, law enforcement, healthcare, and education.

Secondary Trauma: The emotional duress or trauma experienced by a worker as a result of hearing about or being exposed to the firsthand traumatic experiences of others

Stress: A response to environmental or workplace demands (such as high workload or pressure) that exceed an individual's coping resources.

Stigma: Negative views, misconceptions, or unfavorable attitudes toward individuals with mental illness that act as a barrier to help-seeking.

Suicidal Ideation: The presence of thoughts, ideas, or ruminations about ending one's own life, often as a ripple effect of untreated depression.

ABSTRACT

Background: Poor mental health among public servants is a growing concern with significant implications for workplace productivity and overall well-being. This study examined the knowledge, attitude, and prevalence of mental health conditions (depression, anxiety, and stress) among public servants in Benin City, Edo State, to identify key influencing factors, gaps in awareness, negative perceptions, and the extent of these conditions within the workforce in order to promote early identification and treatment, improve employee well-being, and enhance productivity and job performance among public servants.

Objective: This study is aimed to determine the lvel of knowledge of mental health, assess attitudes, prevalence and factors influencing mental health status among public servants in, Benin City, Edo state.

Methods: A Analytical cross-sectional study was conducted among 460 public servants across various Ministries, Departments, and Agencies (MDAs) in Benin City. Respondents were selected using a multistage sampling technique, and data were collected using a pretested self-administered questionnaire adapted from the Depression, Anxiety, stress scale (DASS), job demand control support model (JDCS), and the Effort reward model (ERI). Data analysis was performed using IBM SPSS version 25.0. Statical significance was set at $p<0.05$, and 95% confidence interval.

Results: The mean age of respondents was 35 ± 6.9 years. Two hundred and sixty-one (60.0%) of the respondents demonstrated good knowledge of mental health, while 265 (57.6%) held a positive attitude towards mental health. The prevalence of depression was 16.7% (n=77), anxiety was 22.8% (n=105), and stress was 9.3% (n=43). Significant predictors of mental health conditions included high workload (AOR=2.202; CI=1.401–3.462; p=0.001) and conflicts with

supervisors or coworkers (AOR=0.493; CI=0.313–0.777; p=0.002). Additionally, sex ($p < 0.001$), average working hours ($p < 0.01$), and current cadre ($p = 0.021$) were significantly associated with the level of good knowledge, while current job role($p< 0.001$), average working hours ($p<0.048$) were significantly associate with positive attitude.

Conclusion: Although more than half of the public servants possessed good knowledge and a positive attitude toward mental health, the prevalence of conditions like anxiety remains notable. There is a need for targeted workplace interventions to reduce excessive workloads and improve supportive supervision to enhance the mental well-being of the workforce.

Keywords: Anxiety, Depression, Job Demands–Resources model, Mental health, Public servants, Stress scale.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Mental health is a fundamental component of overall health, influencing individual well-being, quality of life, productivity, and social functioning. Mental health conditions encompass a wide range of disorders, psychosocial disabilities, and other mental states characterized by significant psychological distress, functional impairment, or an increased risk of self-harm. Common mental health conditions include depression, anxiety disorders, bipolar disorder, and post-traumatic stress disorder (PTSD). According to the World Health Organization (WHO), exposure to adverse social, economic, geopolitical, and environmental factors—such as poverty, violence, social inequality, and environmental degradation—significantly increases the risk of developing mental health conditions [1].

Mental health disorder such as depression is often associated with other mental illness, and it is estimated that two-thirds of young people with depression have at least one comorbid mental disorder such as such as anxiety disorders, substance use disorders, attention-deficit/hyperactivity disorder (ADHD), conduct disorder, eating disorders, and bipolar disorder compared to young people who are not depressed. It is a serious mental health problem that may lead to different ripple effects inindividuals. One of such ripple effects is suicidal ideation or suicidal thoughts, which may lead to suicide attempts or suicide.[2] Depressive disorders in young individuals are recognized as a major risk factor for suicide.[3]The lifetime risk of suicide among untreated depression patients ranges from 2.2% to 15%, with individuals suffering from depression being 25 times more likely to die by suicide than the general population.[4]

Depression is among the most pressing and widespread challenges that government institutions face in managing the well-being of public servants. Professions such as healthcare workers, law enforcement officers, teachers, and administrative staff are particularly at risk due to high workloads, job insecurity, bureaucratic pressures, and inadequate mental health support[4]. The impact on employees is profound, affecting productivity, workplace morale, and overall mental health. If left unaddressed, these issues can lead to devastating personal and professional consequences, including burnout, reduced efficiency, and even loss of life.[5]

Mental health is a fundamental pillar of overall well-being, essential for a productive and fulfilling life.[5] Promoting mental health within a society requires continuous development and progress.[6] It is crucial to consider mental health across all aspects of life—personal, social, and professional. One key area where mental health plays a significant role is the workplace.[7-9]. Studies have identified several factors that contribute to job-related stress including shift work and high-pressure environments[10-11]. If an individual struggles to manage workplace stressors, they may experience various physical, psychological, and behavioral consequences. Work is generally good for our mental health, but there are times when certain experiences can make work un-enjoyable [12]. Most times, the pressure of, and the stress at work coupled with other life's problems can make depression more likely to occur. In Nigeria, workers conditions and environments have been described as poor, this may cause depression that can affect the employee's productivity, morale and effectiveness[13].

Given its impact, prioritizing mental health in all facets of life, individual, social, and professional is essential [14,15]. One major source of chronic stress that can profoundly affect psychological well-being is an individual's job. When workplace stress becomes overwhelming, it can lead to both physical and psychological issues, not only for the individual but also for their

family. Excessive job stress poses risks to personal health, undermines organizational goals, and reduces work performance quality.[15]

1.2 STATEMENT OF PROBLEM

Public servants such as Public safety personnel (PSP), police officers, firefighters, paramedics, correctional service employees, and communications officials, are routinely exposed to potentially psychologically traumatic events , which place them at heightened risk for developing mental disorders [16]. Estimates indicate that nearly 45% of PSP screen positive for one or more mental disorders, [17], highlighting their increased vulnerability.

Efforts to address these challenges through mental health education, prevention, and treatment programs, such as the Road to Mental Readiness (R2MR) program, aim to increase mental health knowledge, reduce stigma, and promote early help-seeking behaviors, however, evidence regarding the effectiveness of such programs has been mixed with most outcome suggesting high uptake[18]. While small, short-term reductions in stigma and modest improvements in resilience and help-seeking have been observed, these effects are often not sustained over time, and significant changes in mental health knowledge are frequently absent [19,20,21], resulting in a major barrier to treatment-seeking among public servants. This hesitation makes it harder for them to report symptoms accurately and receive the support they need. Taken together, these issues underscore a critical gap: despite access to mental health programs, public servants often lack sustained improvements in mental health knowledge, continue to experience stigma, and may avoid seeking treatment when needed. Negative views of mental health issues such as stigmatizing victims, paired with workplace demands to project strength and resilience, often stop public safety personel particularly police, veteran, and probation officers from seeking professional help[22]. This gap threatens both individual well-being and organizational

effectiveness, emphasizing the need for more effective, contextually tailored interventions that can produce lasting improvements in mental health literacy, reduce stigma, and promote help-seeking behavior among Public servants.

Depression and anxiety are significant mental health issues affecting public servants in Nigeria and globally leading to suicidal ideation, various professions including law enforcement, healthcare, and the military, have reported high prevalence rates of these conditions. Internationally, military personnel are among the most affected[22]. A meta-analysis found that 23% of active military members and 20% of veterans suffer from depression. Additionally, 11% reported experiencing suicidal ideation or attempting suicide, the risk was even higher among those who engaged in substance use, with 18% experiencing suicidal ideation and 30% attempting suicide[23]. Industrial workers also face high rates of mental health issues. A study of 1,200 industrial workers revealed that 30.5% had depressive symptoms, and 33.6% reported suicidal ideation within the past two weeks[24]

Public health workers are another vulnerable group. A CDC survey found that those working over 60 hours per week had a 45.9% prevalence of depression and an 11.3% prevalence of suicidal ideation[25]. Law enforcement officers globally face alarming rates of suicide. In Brazil, 152 police officers died by suicide in 2023, marking a 13.4% increase from the previous year. Suicide has now become the leading cause of death among Brazilian police officers, surpassing deaths in the line of duty[26]. police officers in the UK took a staggering 774,000 days off work in 2022 due to mental health issues such as PTSD, work-related stress, anxiety, and depression. This marked a 55% increase from 2019, highlighting a growing crisis within the profession [27]. These statistics emphasize the urgent need for targeted mental health interventions and support systems for public servants, both in Nigeria and worldwide. Addressing the underlying causes of

depression and suicidality in these professions is essential for improving well-being and preventing further tragedies.

In Nigeria , 600 police officers found that 14% experienced poor mental health with factors such as anxiety, substance use, being unmarried, and female gender significantly increased the risk[28]. In the construction sector, mental health concerns are also prevalent. Among supervisors, 55.1% reported depression, 16% had anxiety, and 9.8% experienced suicidal ideation. The situation was even worse among tradesmen, with 72% suffering from depression, 36.9% from anxiety[29]

1.3 JUSTIFICATION

Mental health status among public servants is increasingly threatened by conditions such as depression and suicidal ideation, which have serious implications for individual well-being, job performance, and overall productivity within the public service. Public servants play a critical role in governance and service delivery; however, the psychological burden associated with their occupational environment often remains under-recognized and inadequately addressed. Despite the high-risk nature of this population, there are few empirical evidence on the knowledge, prevalence, and factors influencing depression and suicidal ideation among public servants in Edo state. Most existing studies in Nigeria and other low- and middle-income countries have focused on hospital-based clinical populations, students, or the general community, while public servants—who experience unique occupational stressors such as heavy workloads, job insecurity, bureaucratic pressures, and limited psychosocial support—have received comparatively little research attention. This gap is even more pronounced among public servants in Benin City, where contextual workplace stressors may differ from those at state or federal levels.

Assessing the knowledge of depression and suicidal ideation among public servants is essential, as poor mental health literacy can delay help-seeking behavior, contribute to stigma, and worsen mental health outcomes. Understanding knowledge levels will help identify gaps in awareness and inform the design of appropriate mental health education within the public service. Furthermore, determining the prevalence of depression and suicidal ideation among public servants will provide critical epidemiological data needed to quantify the burden of these conditions in this occupational group. Such data are vital for prioritizing mental health within public service systems and for comparing local findings with national and international evidence. In addition, identifying the factors influencing depression and suicidal ideation—including socio-demographic, occupational, and psychosocial factors—will enhance understanding of the underlying drivers of poor mental health among public servants. This knowledge is necessary for developing targeted preventive and intervention strategies aimed at reducing mental health risks and promoting resilience in the workplace. From a public health and policy perspective, evidence generated from this study will be valuable to policymakers, state civil service, and public health practitioners. The findings can support the development of workplace mental health policies, mental health promotion programs, counseling services, and early intervention strategies tailored to public servants. Ultimately, this study seeks to contribute to improved mental health outcomes, strengthened support systems, and enhanced productivity within the public service sector in Nigeria.

1.4 RESEARCH QUESTIONS

1. What is the knowledge of Mental health among public servants in Edo state?

2. What is the mental health status among public servants in Edo state ?

3. What are the factors influencing mental health status among public servants in Edo state?

4. What are the attitudes towards mental health among public servant in Edo state?

1.5 STUDY OBJECTIVES

General objectives

To assess knowledge, prevalence and determinant of Mental health status among public servants in Benin City, Edo state , to identify key influencing factors, gaps in awareness, negative perceptions, and the extent of these conditions within the workforce in order to promote early identification and treatment, improve employee well-being, and enhance productivity and job performance among public servants

Specific objectives

1. To assess the knowledge of Mental health of public servants in Edo state.
2. To ascertain the attitudes towards mental health among public servant in Edo state.
3. To determine mental health status of public servants in Edo state.
4. To identify the factors influencing mental health of public servants in Edo state.

CHAPTER TWO

LITERATURE REVIEW

2.1 BACKGROUND

Mental health among public sector workers is a critical concern, as these individuals are essential to effective government and the delivery of vital services to all residents. Often positioned on the frontlines during economic downturns, disease outbreaks, and periods of political turmoil, public sector workers are exposed to intense and sustained pressures. The weight of these responsibilities, combined with unique occupational stressors inherent in their roles, can take a significant toll on their mental well-being. Many public sector workers experience trauma as a result of their professional experiences. This can include secondary trauma or the emotional duress an individual experiences when they hear about someone else's firsthand traumatic experiences. High rates of secondary trauma occur among various parts of the public sector, particularly among educators, health care workers and law enforcement officials. Members of the public sector workforce are vulnerable to developing this type of trauma and related adverse outcomes, including disassociation, anxiety, stress and physical ailments. If unaddressed, the symptoms can result in problems with mental and physical health, strained personal relationships and poor work performance[30]

Despite the existence of the National Mental Health Policy, implementation of mental health programs in Nigeria has remained limited due to inadequate funding, shortage of trained mental health professionals, poor coordination of services, and concentration of mental healthcare facilities in urban areas. Mental health promotion activities were therefore carried out largely by a few governmental and non-governmental organizations. Some of these organizations undertook programs focused on mental health awareness, psychological support services, crisis intervention,

health education, counseling, research, and early identification and treatment of mental health conditions such as depression, anxiety, stress, and substance abuse disorders. However, these interventions often had limited reach and visibility because many were localized within major cities and lacked sufficient institutional support.[31]

Depression is a common problem worldwide, common among the working population as has also been reported in Nigeria and its effects have been noted to be very costly for employees and employer.[31,32]. Until November 22, 2023, when the National Suicide Prevention Strategic Framework (NSPSF) was launched by the Federal Ministry of Health and Social Welfare, to strengthen mental health awareness, reduce stigma, improve access to mental health services, and support early identification and prevention of suicide across the country.[33]

These programs were run mostly by non-governmental organizations such as the Nigerian Suicide Prevention Initiative Counselling, and the Smart Suicide Prevention Initiatives.[34]A few others were managed by government agencies such as the Lagos University Teaching Hospital Suicide Research and Prevention Initiative (SURPIN), suicide hotlines by the National Human Rights Commission and the Lagos State government suicide hotlines.[35]. What these bodies undertook as programs included research, promotion of mental well-being, crisis intervention through emergency hotlines, health education, and early treatment of depression and drug abuse. However, the efforts of these bodies yielded little in terms of stemming suicide in Nigeria. Apart from being localized to the major cities of Nigeria, they were poorly funded and lacked coordination, thus limiting their visibility. It is however expected that with the introduction of the NSPSF, there will be a significant rollback in suicide.

In Nigeria, where public universities are grappling with unique challenges such as underfunding political instability, and socio-economic pressures[36], the mental well-being of the academic

workforce is of paramount concern. High levels of stress among public university workers, especially those in the teaching categories and the general university workers population perceived stress levels among this group and their association with mental health disorders is crucial for developing targeted interventions that can enhance their well-being and productivity, recent studies have highlighted the increasing prevalence of mental health disorders among academic staff globally.[36]

2.2 TOOLS FOR ASSESSING PREVALENCE OF MENTAL HEALTH STATUS AMONG PUBLIC SERVANTS

The mental health screening tools used in this study are derived from the brief mental health (BMH) screening tool validated by Bhana et al.[37] The BMH tool was developed for use in primary healthcare settings to facilitate the rapid identification of common mental disorders among adults. It is a composite instrument consisting of seven items drawn from three well-established and internationally validated screening questionnaires: the Alcohol Use Disorders Identification Test–Consumption (AUD-C), the Patient Health Questionnaire-2 (PHQ-2), Generalized Anxiety Disorder-7 (GAD-7) and the Generalized Anxiety Disorder-2 (GAD-2).[37]

Depressive symptoms are screened using the PHQ-2, which consists of two core items assessing the frequency of depressed mood and loss of interest or pleasure in activities over the preceding two weeks. The PHQ-2 is widely used as an initial depression screening tool due to its brevity and acceptable validity in both clinical and community settings.[38]

Anxiety symptoms are assessed using the GAD-2, a two-item screening instrument that evaluates key features of generalized anxiety, specifically persistent feelings of nervousness or anxiety and

difficulty controlling worry. The GAD-2 is commonly employed in primary healthcare settings as a rapid screening tool for anxiety disorders.[39]

By integrating these three brief instruments, the BMH screening tool provides a concise yet comprehensive approach to screening for common mental disorders—namely depression, anxiety, and alcohol misuse—in busy primary healthcare environments. The validation study by Bhana et al. demonstrated that the BMH tool has acceptable diagnostic accuracy and is feasible for routine use in low-resource primary healthcare settings.[37]

2.3 THEORETICAL FRAMEWORK

To guide our research question and streamline this study, we used combinations of theoretical frame-works to conceptualise and explore knowledge, attitude and factors influencing mental health Specifically, we used several theoretical frameworks to guide our research questions, develop our interview guide, develop code frames and the moderation or interview processes: self-identification as having common mental health symptoms (SICMS)[40]

We also explored their perceptions of the controllability and preventability of occupational stress, anxiety and depression. Within the SICMS frame-work, the perceived meaning or awareness of symptoms (stress, depression and anxiety) was evaluated against the Diagnostic and Statistical Manual of Mental Disorders (DSM)-5criteria for anxiety and depression models [41,42].We selected the JD-R model[43] to guide the exploration of public servants' perceptions of high demands (such as high workloads and emotional stressors that may cause negative mental or physical symptoms when they exceed health workers' coping resources) and low job resources (limited support, autonomy, opportunities, emotional readiness and resiliencies) due to better accommodation of multiple work-related stressors.

(JDC) model.[44] While the JDC model focuses primarily on the balance between job demands and employees'control over their work, the JD-R model broadens this perspective by incorporating not only job demands and control but also the importance of job resources in the knowledge and attitudes of public servants are key determinants of their responses to mental health problems and their capacity to support mental health service integration within public service systems. The theoretical orientation of the study aligns with widely used health literacy and Knowledge influencing employee well-being and performance.

Hence, we selected the JD-R theoretical model to guide our studto incorporate broader work-related stressors identified by the health workers. The ERI[45] model is also another stress-health model that suggests stress arises when the effort employees invest in their work is not matched by adequate rewards, including financial compensation, esteem and career opportunities.

The study is underpinned by an implicit behavioural–cognitive conceptual framework rather than a clearly named or explicitly stated theoretical model. Fundamentally, the research is guided by the assumption that –Attitude–Practice (KAP) perspectives in public health research. Within this framework, adequate knowledge of mental health problems—including understanding of causes, symptoms, and outcomes—is viewed as a prerequisite for the development of favourable attitudes toward individuals experiencing mental illness. These attitudes, in turn, are considered essential for appropriate engagement, support, and effective service delivery related to mental health.

The framework assumes that public servants, particularly those in frontline and community-facing roles, occupy a strategic position in influencing access to services, early identification of mental health problems, referral pathways, and public attitudes toward mental illness. Consequently, limited mental health knowledge or the presence of negative attitudes among

public servants may constitute significant barriers to mental health promotion, stigma reduction, and effective service delivery. In contrast, improved knowledge and positive attitudes are expected to enhance responsiveness to mental health needs and facilitate the integration of mental health considerations into routine public service functions.

2.4 CONCEPTUAL FRAMEWORK

This conceptual framework is operationalised through the assessment of public servants' levels of knowledge and attitudes using structured questionnaires and by examining variations across socio-demographic and occupational characteristics. In doing so, the study implicitly evaluates the assumption that individual cognitive factors (knowledge) and psychosocial factors (attitudes) shape the preparedness and effectiveness of public servants in addressing mental health issues within their professional roles.

In summary, although the study does not explicitly state a named theoretical model, it is grounded in a health literacy–driven, KAP-oriented conceptual framework, which conceptualises knowledge and attitudes as foundational determinants of public servants' behaviour and effectiveness in responding to mental health challenges within institutional and community settings.

Diagrammatically, the model can be represented as;

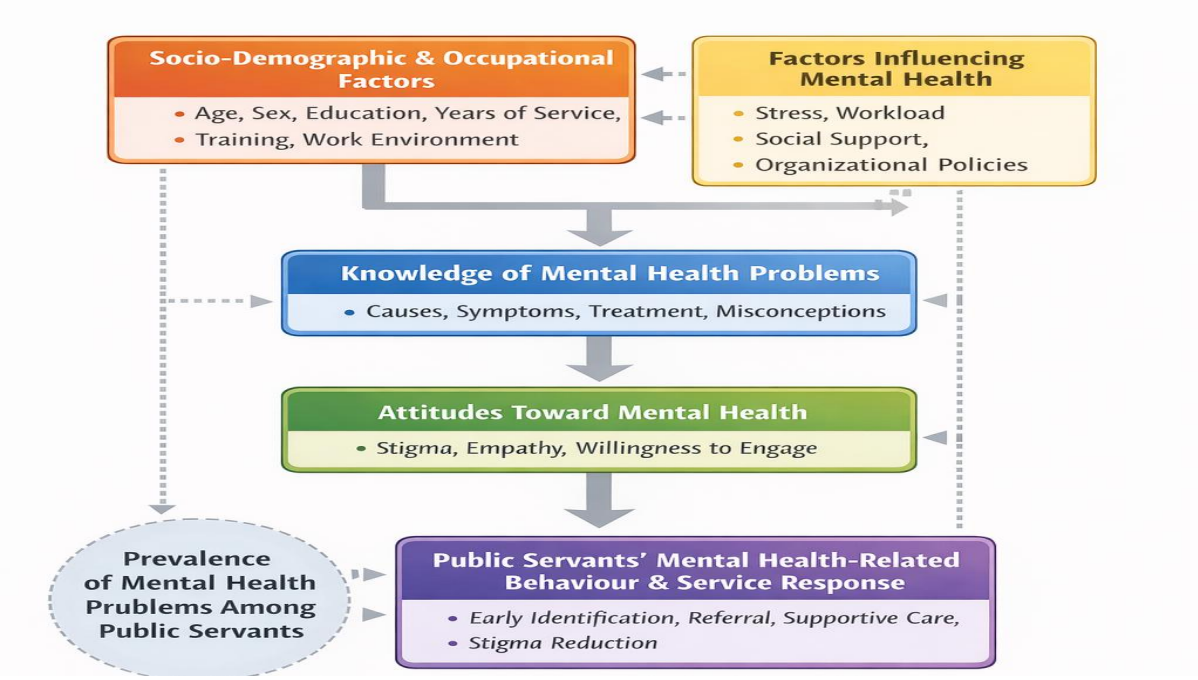

Figure 2.1: Conceptual Framework

2.5 KNOWLEDGE OF MENTAL HEALTH STATUS AMONG PUBLIC SERVANTS

A cross-sectional study conducted in Canada and published in Frontiers in Psychology assessed mental health knowledge, stigma, and intentions to use mental health services among public safety personnel (PSP), including communications officials, correctional workers, firefighters, paramedics, and police officers. The study used standardized questionnaires to measure participants' mental health literacy, stigma toward colleagues with mental illness, and their willingness to seek professional mental health services. Results showed significant variation in mental health knowledge, stigma, and help-seeking intentions across PSP categories: correctional workers reported the highest levels of mental health knowledge, the lowest stigma, and the greatest willingness to seek services, whereas firefighters exhibited the lowest knowledge, the highest stigma, and the lowest intentions to use mental health services. The findings also indicated that higher mental health knowledge was associated with greater willingness to seek professional help, while stigma was inversely related to help-seeking intentions. These results

highlight the need for tailored interventions to improve mental health literacy and reduce stigma among public safety personnel to promote earlier and more effective use of mental health services.[46]

A descriptive cross-sectional survey was conducted among 50 teachers from selected Pre-University colleges in Udupi district to assess their knowledge, attitude, and gatekeeper behavior regarding suicide prevention. Data was collected using the Literacy of Suicide Scale, Attitude Towards Suicide Prevention Scale, and Gatekeeper Behaviour Scale, following necessary permissions, informed consent, and confidentiality measures. Analysis using descriptive statistics in SPSS revealed that 68% of teachers lacked the expected level of knowledge on suicide, none scored above 75% on the knowledge scale, 98% held a negative attitude towards suicide, while 78% demonstrated positive gatekeeper behavior, emphasizing the need for targeted training programs to improve suicide awareness and prevention efforts.[47]

In a cross-sectional study to assess the knowledge of depression among 476 law enforcement officers, the findings showed that while officers believed they had good knowledge of suicide prevention, their actual factual knowledge was low. However, their confidence and attitudes toward prevention were generally positive. Nearly all participants knew that when a person talks about suicide they should be taken seriously, and 84% reported that helping the individual get professional help was an important outcome of interacting with someone at imminent risk of suicide behavior. Other knowledge-based questions revealed that about 95% of participants were able to identify many of the primary risk factors for suicide, including hopelessness, depression, withdrawal, and family history.[48]

A cross-sectional study in two health facilities in Kenya—AIC Kijabe Mission and Naivasha County Referral Hospitals—between December 2021 and February 2022 was carried out to

assess the knowledge of depression among . 420 and 270 Health workers respectively. Almost all (>90%) of the respondents had heard of depression, considered depression a health problem, knew that depressed patients can break down at any time, and said that depression can lead to suicide or suicide attempts or that depression can be treated with pharmacological methods and psychotherapy.[49]

A qualitative, cross-sectional study conducted in public health facilities across the Central and Southern regions of Ethiopia between January and February 2023 explored how health workers recognised and experienced common mental symptoms and work-related psychosocial stressors. Using an interpretive and descriptive phenomenological approach, the authors carried out 10 in-depth interviews (IDIs) and three focus-group discussions (FGDs) with a purposive sample of 34 health workers to understand their conceptualisation of occupational stress, anxiety, and depression; perceived exposure to psychosocial stressors; impact on professional quality of life; coping strategies; and barriers to seeking support. Data were audio recorded, transcribed, translated into English, and analyze using MAXQDA 2020 software with thematic analysis. Five major themes emerged: (1) conceptualisation of common mental symptoms; (2) exposure to work-related stressors; (3) perceived impacts on professional quality of life; (4) coping experiences; and (5) barriers to mitigation and support-seeking. Findings revealed low levels of self-identification of common mental symptoms despite increased perceived links between work stressors and mental symptoms, limited adaptive coping strategies, and multiple individual and organisational barriers to effective coping. The study emphasised the need for targeted workplace interventions, including updated training on common mental symptoms, improvements in workplace resources and communication, policy reforms, and promotion of

adaptive coping strategies to enhance health workers' mental well-being and professional quality of life.[50]

A cross-sectional study conducted in five districts of Jimma Zone, Oromia Region, Ethiopia between 15 August and 30 August 2020 assessed knowledge and attitudes towards mental health problems among health extension workers (HEWs). A total of 259 HEWs were selected from the districts using cluster sampling and completed a structured, pretested self-administered questionnaire adapted from established instruments to measure mental health knowledge and attitudes. Descriptive statistics, t-tests, and one-way ANOVA were used to analyse the data. The findings revealed that 47.1% of participants had inadequate knowledge of mental health problems and 48.3% held unfavourable attitudes towards people with mental illness. Misconceptions were common: 53.7% attributed mental illness to evil spirit possession, 60.6% believed people with mental illness are dangerous, and 24.3% stated that witch doctors should manage mental disorders. Longer work experience was associated with better knowledge and more favourable attitudes. The authors concluded that a significant proportion of HEWs in this setting have poor mental health literacy and negative attitudes, highlighting the need for both short-term and long-term mental health training to support integration of mental healthcare into community health services.[51]

A cross-sectional study conducted in Lagos State, Nigeria assessed primary health care workers' knowledge, attitudes, perceived challenges, and competence regarding depression and its management as part of the Mental Health in Primary Care (MeHPriC-P) project. The research took place in 49 "flagship" primary health care centres (PHCs) in 2016, with 607 of 625 invited health workers completing a structured questionnaire (97.1% response rate). The survey incorporated case vignettes and validated items to measure participants' ability to recognise

depression, beliefs about causation and treatment, perceived capacity to manage depression in PHC settings, and attitudinal stance toward depressed patients. Results showed that 56.2% of respondents correctly diagnosed depression from vignette presentations; 77.3% attributed depression to psychosocial factors, while **36.2% endorsed spiritual causes. Only 39.4% believed that depression should be primarily managed in PHCs, though 86.2% were open to managing depression if adequately trained. Major barriers identified included heavy workload (68.5%) and lack of competence in mental health care (67.5%), and 42% exhibited poor attitudes toward depressed patients. Importantly, having formal mental health training was significantly associated with both better knowledge and more favourable attitudes toward depression care. These findings highlight important gaps in mental health literacy and attitude among frontline PHC workers in Lagos, which may impede successful integration of depression care into primary care services.[52]

2.6 PREVALENCE OF MENTAL HEALTH ILLNESS AMONG PUBLIC SERVANTS

A cross-sectional study conducted in Norway between March 31 and April 7, 2020 assessed the prevalence and predictors of post-traumatic stress disorder (PTSD), depression, and anxiety among health workers and public service providers during the early phase of the COVID-19 pandemic. A total of 1,773 participants completed validated screening instruments, including the PTSD Checklist for DSM-5 (PCL-5), the Patient Health Questionnaire-9 (PHQ-9), and the Generalized Anxiety Disorder-7 (GAD-7). The study found that 28.9% of respondents reported clinical or subclinical PTSD symptoms, while 21.2% and 20.5% met criteria for moderate to severe depression and anxiety, respectively. Health workers with direct exposure to COVID-19 patients had significantly higher PTSD and depression scores compared with those in non-

frontline roles. Furthermore, pre-existing psychiatric conditions, increased symptom severity of anxiety and depression, burnout, job-related and financial concerns, and health anxiety were identified as significant predictors of PTSD symptoms after adjustment for demographic variables. These findings indicate a substantial mental health burden among frontline workers during the COVID-19 pandemic, underscoring the need for early identification and targeted mental health interventions.[53]

In a cross sectional study, using data from the Brazilian Longitudinal Study of Adult Health (ELSA-Brazil) investigated the prevalence and factors influencing of suicidal ideation among civil servants in São Paulo, Brazil, during the COVID-19 pandemic. Suicidal ideation was assessed using the Clinical Interview Schedule-Revised (CIS-R) in two waves: a pre-pandemic assessment (2016-2018) and a pandemic assessment (May-July 2020). The study analyzed various predictors, including sociodemographic characteristics, financial impact, chronic diseases, alcohol abuse, adverse childhood experiences , living alone, and prior common mental disorders . Findings revealed a threefold increase in suicidal ideation, rising from 1.8% (34 participants) before the pandemic to 5.6% (104 participants) during the pandemic. The study highlights the critical need for targeted mental health support, particularly for individuals with a history of mental health disorders and childhood adversity, especially during periods of heightened societal stress like the COVID-19 pandemic.[54]

A cross-sectional study conducted among seafarers working on ocean-going vessels in China during the COVID-19 pandemic assessed post-traumatic stress disorder (PTSD), depression, and anxiety symptoms. The study was carried out in July 2020 across two international shipping companies, and 439 of 470 invited multinational crew members participated (93.4% response rate). Standardized instruments—the PTSD-8 questionnaire, the Patient Health Questionnaire-9

(PHQ-9), and the Generalized Anxiety Disorder-7 (GAD-7)—were used to measure psychological outcomes. Overall, 37.3% of seafarers reported symptoms consistent with PTSD, 14.1% had depressive symptoms, and 12.4% had anxiety symptoms. In adjusted analyses, longer duration on the current vessel during the pandemic was associated with higher odds of intrusion and depressive symptoms, while working more hours per week was inversely related to hyper-vigilance and avoidance symptom scores. Non-officer crew experienced significantly lower anxiety, depressive symptoms, and PTSD subdomain scores compared with officers. The findings indicate a high prevalence of adverse mental health outcomes among seafarers during the COVID-19 pandemic and underscore the need for focused mental health support and interventions for this occupational group.[55]

In a cross-sectional study to assess the prevalence of depression, suicidality, and associated risk factors among police officers in Tanzania, Conducted between April 2019 and October 2020, the study recruited 550 participants from Dar es Salaam using a multistage cluster sampling technique. The study found that 19.8% of police officers screened positive for depression, while 15.4% reported suicidality. Among those with depression, 30.2% experienced moderate depression, while 10.7% had severe depression. Additionally, 10.7% of those with suicidal ideation reported experiencing daily suicidal thoughts. These findings emphasize the urgent need for mental health interventions among police officers in Tanzania, particularly focusing on improving social support systems to reduce the risk of depression and suicidality in this high-stress profession.[56]

In a cross-sectional conducted in the East Kazakhstan and Abay regions between September and December 2022 to access the prevalence of depression and suicidal ideation among Emergency medical station which is a public healthcare institutions providing emergency medical services,

operating within the state healthcare system, offering critical care to both adult and pediatric patients in life-threatening conditions, accidents, and severe acute illnesses. findings revealed that the majority of EMS personnel (69.8%) did not exhibit significant symptoms of depression, indicating overall psychological well-being among most participants. However, 20.4% of the respondents displayed subclinical levels of depression, additionally, 9.8% of participants showed clinically significant depression, suggesting a substantial impact on their well-being and daily functioning, potentially requiring intervention or treatment.[57]

A cross-sectional, web-based study conducted across four sub-Saharan African countries (Nigeria, Ghana, Malawi, and Mozambique) assessed the prevalence and cross-national variations of depression, anxiety, and stress symptoms among university staff and students. The survey was carried out from 16 April to 18 November 2024, using the Depression, Anxiety, and Stress Scale-21 (DASS-21) questionnaire distributed online through social networks and institutional contacts. Of the 3,227 valid respondents included in the analysis (mean age 25.3 ± 8.6 years; 57.3% female), significant differences were observed in mental health outcomes by country of origin. Compared with participants from Ghana, those from Malawi had the highest adjusted odds of experiencing depression, anxiety, and stress (adjusted odds ratios for Malawi: 4.39, 3.86, and 4.51, respectively), followed by respondents from Mozambique and Nigeria. Ghana consistently showed the lowest prevalence of severe and extremely severe mental health conditions among the countries studied. These findings highlight substantial cross-national variations in psychological distress among higher education populations in sub-Saharan Africa and emphasize the importance of contextual factors such as education, gender, and country of residence in understanding mental health risks in this region.[58]

In a Cross-sectional study to assess the prevalence of suicidality among 638 Police officers in Lagos State, Nigeria. only 600 participants completed the instruments, giving a 94% response rate from the sample. the results shows lifetime-prevalence of suicidal ideation was 22%, 2% of the participants reported lifetime-suicidal attempt with concomitant hope to die. The prevalence of suicidal ideation in past year was 21%, with 9.3% having suicidal ideations very often. About 14% of them in their lifetime had declared a suicidal intent to others, and 7% had done this more than once due to having a strong desire to commit suicide. Further-more, a likelihood of future suicide attempt was found in 6.4% of the sample Police officers play a major role in ensuring a security of lives and properties in every society, suicide prevention, and mental health promotion strategies should be put in place by the leadership of the police force for their officers.[59]

A cross-sectional study conducted between March and November 2021 assessed the prevalence of mental health status and job performance of nurses working in secondary health facilities in Ibadan, Southwest Nigeria during the COVID-19 pandemic. A total of 250 nurses selected from eight state-owned secondary health facilities participated in the study. Standardized and pre-tested tools were used to assess mental health outcomes: the Generalized Anxiety Disorder-7 (GAD-7) for anxiety, the Insomnia Severity Index (ISI) for insomnia, the Patient Health Questionnaire-9 (PHQ-9) for depression, and the Impact of Event Scale-Revised (IES-R) for post-traumatic stress disorder (PTSD), while job performance was evaluated using an item from the World Health Organization Health and Work Performance Questionnaire (HPQ). The results showed that anxiety symptoms were common, with approximately 34.4% mild, 17.2% moderate, and 3.6% severe; depression symptoms included 30.8% mild, 10.4% moderate, and 6.0% severe; and PTSD symptoms were present at varying levels. Job performance was significantly associated with mental health symptoms including anxiety, insomnia, depression, and PTSD

($p < 0.001$). The findings highlight the substantial burden of mental health disorders among nurses in this setting and underscore the need to prioritise psychological support to improve workforce wellbeing and performance.[60]

A cross-sectional study conducted in June 2021 at the Nigerian Defence Academy (NDA), Kaduna, Nigeria examined perceived stress levels and general mental health symptoms among 150 first-year officer cadets aged 18–25 years. Using a purposive and convenience sampling approach, participants completed a structured questionnaire comprising demographic information, the Hopkins Depressive Symptoms Checklist (for symptoms of depression and other mental health indicators), and the Stressor Index Questionnaire (to assess stressors across family, academic, social, and environmental domains). Statistical analyses included independent t-tests and Pearson correlation coefficients to test hypotheses. The results showed that first-year officer cadets experienced high levels of perceived stress and significant relationships between stress and general mental health symptoms. Anxiety, post-traumatic stress symptoms, emotional imbalance, long hours of training, and workload were significantly correlated with symptoms of mental health, and there was a statistically significant relationship between stress and overall mental health outcomes. The study concluded that the transition into military training at the NDA presents substantial psychosocial stress for cadets, adversely influencing mental health, and recommended enhanced counseling services, stress-management programs, and curriculum adjustments to support psychological wellbeing.[61]

A cross-sectional survey conducted among Nigerian military personnel deployed in Operation Lafiya Dole in the North-Eastern region of Nigeria investigated the prevalence and psychological correlates of post-traumatic stress disorder (PTSD). The study was carried out in 2020 among 242 purposively sampled soldiers under the Headquarters Theatre Command of Operation Lafiya

Dole in Maiduguri, Borno State. Participants (95.5% male) completed the 17-item Posttraumatic Stress Disorder Checklist-Military Version (PCL-M) to assess PTSD symptoms and the 44-item Big Five Inventory to evaluate personality traits. Descriptive statistics characterized the sample, and hierarchical multiple regression was used to test the relationship between personality traits and PTSD symptoms. The results showed that conscientiousness significantly predicted PTSD symptom severity, while extraversion, agreeableness, neuroticism, and openness did not. The combined effect of personality traits on PTSD was statistically significant, explaining a meaningful proportion of variance in PTSD scores. The findings highlight the psychological impact of sustained combat exposure among soldiers fighting insurgency and underscore the need for mental health screening and tailored interventions within military populations.[62]

A cross-sectional study conducted in North-Eastern Nigeria assessed combat-induced post-traumatic stress disorder (PTSD) symptoms among military officers deployed in the fight against Boko-Haram insurgency. The study was carried out in 2017 and involved a purposive sample of 160 officers from the Nigerian Army, Navy, and Air Force who had been actively engaged in frontline combat for at least one year. PTSD symptoms were measured using the Post-Traumatic Stress Disorder Checklist for DSM-5 (PCL-5), a 20-item self-report instrument aligned with DSM-5 criteria. Findings revealed that 35% of participants reported re-experiencing combat-related traumatic events, 48% indicated moderate to severe distressing battlefield memories and dreams, and 70% showed avoidance behaviours toward combat reminders. A significant proportion also reported hyperarousal and cognitive-emotional symptoms, such as concentration difficulties and sleep disturbance. These results indicate a high prevalence of PTSD symptoms among Nigerian military personnel exposed to prolonged combat stress. The study recommends strengthened psychological screening, mental health support services, and

trauma-informed interventions within military settings to address the psychological sequelae of combat exposure.[63]

2.7 FACTORS INFLUENCING MENTAL HEALTH STATUS AMONG PUBLIC SERVANTS

In a cross-sectional study to assess the factors influencing suicidal risk among the United States among members of the California Lawyers Association (CLA) and the D.C. Bar. Using a random sampling approach, 80,000 participants were selected from a total of 196,000 de-identified unique IDs. Of these, 5,292 individuals consented to participate, and approximately 4,000 completed the survey. The study identified five key predictors of suicidal ideation among lawyers. Lawyers with high or intermediate levels of work overcommitment were more likely to experience suicidal thoughts. Loneliness also played a significant role, as those who screened as lonely had a higher risk of suicidality. Gender was another important factor, with men being more likely than women to report suicidal ideation. A history of mental illness further increased the likelihood of experiencing suicidal thoughts. Finally, perceived stress was the strongest predictor, with both high and intermediate stress levels significantly raising the risk of suicidality. The study found that several factors significantly predicted suicidal ideation among lawyers. High work overcommitment increased the odds of suicidal ideation by 2.2 times, while intermediate work overcommitment raised the risk by 1.6 times. Lawyers who screened as lonely were 2.8 times more likely to report suicidal thoughts. Gender was also a significant factor, with men being twice as likely as women to endorse suicidality. A history of mental illness increased the risk by 1.8 times. However, the strongest predictor was perceived stress—lawyers with high stress levels were 22 times more likely to experience suicidal ideation, while those with intermediate stress had 5.5 times higher odds. In contrast, alcohol and substance use severity, age,

and work-family conflict did not significantly contribute to the model and were removed from the final analysis.[64]

In a cross-sectional survey in 2021 among 514 military personnel in Lambayeque, Peru, to assess factors influencing suicidal ideation, several factors such as depression, anxiety, and post-traumatic stress disorder (PTSD), as well as sociodemographic factors were examined. This study found that 14% of military personnel in Lambayeque, Peru, were at risk of suicide (SR), with several factors influencing their vulnerability. Individuals with a family history of mental health conditions were 2.16 times more likely to be at risk of suicide compared to those without, while those experiencing moderate clinical insomnia had a 2.21 times higher risk. Anxiety showed the strongest association, with affected individuals being 3.27 times more likely to have suicidal risk. However, resilience appeared to be a protective factor, as military personnel with high resilience were 46% less likely to be at risk of suicide. These findings highlight the urgent need for targeted mental health interventions and policy measures to address the key risk factors and strengthen protective factors in military populations.[65]

In a cross-sectional study to assess the factors influencing suicidal ideation among South African Infantry soldiers of the South African National Defence Force (SANDF), data were collected from 1,475 respondents across nine infantry units in various provinces. The study aimed to examine the impact of risk and resource factors, as well as the role of combat exposure, on suicidal ideation. The findings revealed that the level of suicidal ideation in this sample was lower compared to other international military cohorts. However, combat-exposed soldiers were classified as high-risk for suicidal ideation. Among the risk factors, perceived stress, alcohol-related problems, alcohol dependence, and PTSD were identified as major contributors to increased suicidal ideation. Further analysis demonstrated that combat exposure exacerbated the

impact of risk factors, particularly alcohol-related problems, alcohol dependence, and PTSD, while also weakening the protective role of tangible support. Based on these findings, military interventions should focus on strengthening coping resources, particularly tangible support, to mitigate the psychological burden of combat trauma and reduce suicide risk among infantry soldiers.[66]

A cross-sectional study conducted in Bahir Dar City, Northwest Ethiopia between 10 March and 8 April 2021 investigated sleep quality and its associated factors among police officers. Using a simple random sampling method, 422 officers were selected and assessed, yielding 401 respondents (95.0% response rate). Sleep quality was measured with the Pittsburgh Sleep Quality Index (PSQI), and associated factors including depression symptoms, post-traumatic stress symptoms, occupational stress, and social support were evaluated using standard questionnaires. The prevalence of poor sleep quality was 42.9%. Multivariable logistic regression identified several factors significantly associated with poor sleep quality: being female (adjusted odds ratio [AOR] 4.85), being single (AOR 4.55), having poor social support (AOR 5.28), exhibiting depressive symptoms (AOR 4.40), experiencing post-traumatic stress symptoms (AOR 4.63), and reporting moderate (AOR 2.66) or severe stress (AOR 5.32). The findings suggest a high burden of sleep disturbance among police officers in this setting and highlight the importance of targeted psychosocial interventions to improve sleep and mental health outcomes in law enforcement personnel.[67]

A cross-sectional analytical study conducted in Ghana examined the relationship between psychosocial work environment factors and mental health outcomes among health workers to inform strategies for workplace well-being. The study was published on 25 June 2025 in the Journal of Workplace Behavioral Health and involved a representative sample of health

professionals working across various healthcare settings in Ghana (sample size not specified in the available abstract). Data collection focused on perceived job demands, control, social support, role clarity, and organizational justice, alongside validated measures of psychological distress and well-being. Standardized questionnaires were used to assess participants' psychosocial work conditions and mental health symptoms. Multivariable regression analyses identified significant associations between adverse psychosocial work environment characteristics—such as high job demands, low control, and poor social support—and increased levels of stress, anxiety, and depressive symptoms among health workers. The findings highlight that unfavourable workplace psychosocial conditions are linked with poorer mental health in this workforce, underscoring the need for targeted organizational interventions to enhance employee well-being.[68]

A cross-sectional descriptive survey conducted at the University of Calabar, Cross River State, Nigeria examined the relationship between psychological factors and the mental health status of academic staff. The study was published on 29 May 2025, and involved a representative sample of 400 academic staff selected through stratified random sampling from a total staff population of 3,451. Data were collected using two validated instruments: the Psychological Factors Inventory (PFI), Believe towards mental health scale, psychological factors inventory and the Mental Health Status Questionnaire (MHSQ), each with 36 structured items; instrument reliability coefficients (Cronbach's alpha) were 0.84 and 0.88, respectively. Findings revealed that high levels of stress and burnout were significantly associated with poorer mental health outcomes among academic staff, manifesting as anxiety, emotional exhaustion, and reduced psychological resilience. Conversely, job satisfaction was positively correlated with better mental health and enhanced coping mechanisms. The study concluded that psychological factors—particularly stress, burnout, and job satisfaction—play a significant role in shaping the

mental health status of academic staff, and recommended the implementation of regular mental health awareness programs, institutional counseling services, stress management training, and equitable workload policies to mitigate adverse outcomes and improve staff well-being.[69]

A retrospective ex-post-facto study conducted in South-East Nigeria investigated the extent to which trauma exposure and hopelessness predict post-traumatic stress disorder (PTSD) and depression among military veterans. The study was carried out in 2024 and involved 470 retired veterans (240 males and 230 females) who had previously served in active combat zones. Participants were selected using Taro Yamane's formula for heterogeneous populations and responded to four standardized instruments measuring trauma exposure, PTSD symptoms, depression, and hopelessness. Statistical analyses included regression models to evaluate predictive relationships. Results indicated that trauma exposure significantly predicted PTSD symptoms. Hopelessness was a statistically significant predictor of PTSD, but was not a significant predictor of depression. The authors concluded that traumatic combat exposure and hopelessness are important determinants of PTSD among war veterans in this setting, and recommended establishment of veteran rehabilitation and psychological support centres to promote ongoing mental health assessment and treatment for both serving and retired military personnel.[70]

A cross-sectional descriptive study conducted between May and June 2023 among police officers serving at the Police College, Lagos, Nigeria to assess suicidality and its predictors, where Participants were selected using non-probability convenience sampling, with a total of 600 officers included. The inclusion criteria comprised junior cadre officers who provided informed consent, while those with a history of mental illness or who declined consent were excluded. This studies shows that there was a 14% prevalence of suicidality among police officers with

predictors of suicidality were age, gender, marital status, and education, were significant factors associated with suicidality. Additionally, clinical factors such as state anxiety, trait anxiety, substance use, and a family history of suicide also showed significant associations.Those who were unmarried were three times more likely to be suicidal in comparison to married officers, while those using substance were two times more likely to be suicidal compared to those who did not. Also, with every increase in state anxiety the risk of suicidality was increased by 6-fold and 3-fold respectively.[71]

2.8 ATTITUDES NFLUENCING MENTAL HEALTH STATUS AMONG PUBLIC SERVANTS

A secondary analysis of a cross-sectional survey of United States physicians was conducted between October 12, 2017, and March 15, 2018. Among 30,456 invited physicians,5197 (17.1%) completed the primary survey Suicidal ideation in the last year, attitudes regarding help seeking, symptoms of depression, and burnout were assessed by standardized questions. Results: Among the 4833 physicians who responded regarding Suicidal ideation, 316 (6.5%) reported having suicidal thoughts in the last 12 months. Most physicians (3527 [72.9%]) reported that they would seek professional help if they had a serious emotional problem. Physicians with Suicidal ideation were less likely to report that they would seek help than physicians without Suicidal ideation.[72]

In a descriptive cross-sectional survey conducted among 50 teachers from selected Pre-University colleges in Udupi district, Habtu et al. (2025) reported that 98% of teachers held a negative attitude toward suicide. This finding suggests that despite being in positions where early identification of suicidal behaviors is possible, educators often lack supportive or proactive perceptions regarding suicide prevention. Such negative attitudes may hinder teachers' willingness to intervene or engage in preventive strategies, underscoring the need for targeted

educational programs and awareness campaigns to improve their understanding and responsiveness. Addressing these attitudinal barriers is therefore essential to strengthen the role of teachers as effective gatekeepers in suicide prevention initiatives.[73]

In a cross-sectional study conducted in five districts of Jimma Zone, Oromia Region, Ethiopia, involving 259 health extension workers (HEWs), nearly half of the participants (48.3%) demonstrated unfavourable attitudes toward people with mental illness (Habtu et al., 2020). Misconceptions were widespread, with a substantial proportion of HEWs believing that individuals with mental disorders are dangerous (60.6%) or that mental illness results from evil spirit possession (53.7%). Additionally, 24.3% reported that witch doctors should manage mental health problems, highlighting the persistence of culturally rooted beliefs influencing attitudes. The study also found that longer work experience was associated with more favourable attitudes, suggesting that practical exposure and experience may help reduce stigma. These findings underscore the need for targeted mental health training and awareness programs to improve attitudes among community health workers, thereby supporting the integration of mental healthcare into primary and community health services.[74]

In a cross-sectional study conducted in 49 primary health care centres in Lagos State, Nigeria, 42% of participating health workers exhibited poor attitudes toward patients with depression (Habtu et al., 2016). While a majority were open to managing depression if adequately trained (86.2%), the study revealed persistent misconceptions and attitudinal barriers, with over a third (36.2%) endorsing spiritual causes for depression. These negative or uninformed attitudes were associated with limited confidence and perceived competence in providing mental health care, underscoring the role of formal mental health training in shaping more favourable attitudes. Indeed, health workers with prior mental health training were significantly more likely to hold

positive attitudes toward depression management (OR 2.17; 95% CI 1.48–3.17). The findings highlight the importance of targeted training programs to address attitudinal gaps and enhance readiness among frontline primary care providers to support the integration of mental health services into routine care.[75]

A cross-sectional descriptive study conducted in 2019 at two tertiary healthcare institutions in Akwa Ibom State, South-South Nigeria assessed attitudes, beliefs, and social distance toward persons with mental illness among health workers. A convenience sample of 133 health workers completed the Beliefs towards Mental Illness Scale (BMIS) and a modified Bogardus Social Distance Scale to measure their beliefs about mental illness and willingness to interact with people with mental disorders. The mean age of respondents was 40.1 ± 9.0 years, with 52.3% males and 47.7% females. Results indicated that a high proportion of health workers held negative beliefs about mentally ill persons, including perceptions of dangerousness and incurability, and maintained relatively high desired social distance (mean social distance score = 2.86 ± 1.12). Attitudes and social distance scores varied significantly by professional orientation, fear of dangerousness, and family history of mental illness. The authors concluded that negative beliefs, attitudes, and social distancing toward persons with mental illness are prevalent among health workers in this setting and recommended ongoing psychiatric education and training to improve attitudes and reduce stigma among healthcare providers.[7

CHAPTER THREE

METHODOLOGY

3.1 STUDY AREA

The study was conducted in Benin City in Edo, one of Nigeria's 36 states. Located in the South-South geopolitical zone, Edo State covers an area of approximately 19,743 square kilometers. It shares borders with Kogi State to the northeast, Anambra State to the east, Delta State to the southeast, and Ondo State to the west and northwest [77]. Benin City, the capital of Edo State and administrative hub of Oredo LGA, is one of Nigeria's oldest cities, dating back to the 7th century B.C. Geographically, it spans 112.5 square kilometers and lies at an elevation of 18.64 meters above sea level. The metropolis includes three LGAs: Oredo, Egor, and Ikpoba Okha ,Uhumwuonde, Orhiomwon . As Edo State's urban and government center, Benin City will continue to experience rapid development, with growth extending toward Oluku in Ovia North East and Eyaen in Uhumwuonde, ovia north east Local Government Areas, fostering increased commercial, service, and industrial activities.[78]

Its population was 1,147,188 in 2006 and is projected to reach 4,751,878 by 2023, with coordinates between 06°19'N–06°21'N latitude and 05°34'E–05°44'E longitude.[79]

The Public Service was established by Section 169 of the 1999 Constitution of Nigeria. The government operates the Public Service by making subsidiary laws and executing them through Ministries, Departments, and Agencies (MDAs). The Public Service encompasses the Civil Service, Armed Forces, Parastatals, statutory corporations, universities, and other public institutions. Public servants may also perform operational roles, such as teaching, delivering healthcare, or managing state-owned enterprises.[80]

Benin City, as part of Edo State, is served by a comprehensive network of MDAs with the Secretariat building (Palm House) at Benin-Sapele Road. The Edo State Government comprise

over 72 MDAs with 18 ministries, including those focused on Health, Education, Finance, Agriculture, Environment, and Public Security. Additionally, there is numerous departments such as the Directorate of Cabinet, Political & Special Duties, and agencies like the Edo State Public Procurement Agency, Edo City Transport Service, and the State Emergency Management Agency.[81]

This framework was designed to oversee various public services and developmental activities within the city and the state, ensuring efficient policy implementation and governance[82]

The different MDAs setting provides a diverse population of public servants who may be vulnerable to mental illness. This environment is suitable for examining knowledge, attitude, prevalence and level of job satisfaction as well as factors influencing mental illness among Public servants, providing insights that are relevant for developing interventions within public service in Nigeria.

3.2 STUDY DESIGN

A Analytical cross-sectional study design was used for this study.

3.3 STUDY DURATION

This study was carried out from December 2024 to May 2026.

3.4. STUDY POPULATION

The study population comprised of public servants randomly selected in Ministries, Departments, and Agencies (MDAs) in Benin City, Edo State

3.5 SELECTION CRITERIA

3.5.1 Inclusion criteria

1. Confirmed public servants employed in the selected Ministries, Departments, and Agencies (MDAs) in Edo State for at least six months prior to the commencement of the study.

2. Public servants from all cadres and departments within the selected MDAs who were willing to participate in the study.

3.5.2 Exclusion criteria

1. Public servants who were eligible but decline participation.

2. Public servants who were on official leave, assignment, or otherwise unavailable during the study.

3. Public servants who were unfit to provide appropriate responses due to illness.

3.6 SAMPLE SIZE DETERMINATION

The minimum sample size (n) was calculated using Cochran's formula for descriptive (prevalence) studies: $n = Z^2 pq / d^2$[83]

Where:

n = minimum sample size

Z = standard normal deviation at 95% confidence interval (1.96)

p = estimated prevalence of depression among workers/public serv ants from a previous study

q = 1 - p

d = degree of precision set at 0.05

In a cross –sectional study conducted in north Hawassa, Ethiopia among public servant, showed that 76.3% of wokers have work-related anxiety

So:

- $p = 0.763$
- $q = 1 - 0.763 = 0.237$

Plug values into Cochran's formula

$n = \frac{(1.96)^2 \times 0.763 \times 0.237}{(0.05)^2} = 277.8$, n≈278

To account for non-response, 10% non-response rate was added to the minimum sample size, utilizing the formula for non-response rate.

ns = adjusted sample size

ns = calculated sample size + non-response rate

nr = non-response rate = 10% = 0.1

nr = 0.1x 278 = 27.8

n = calculated sample size = 278

ns = 278+27.8= 305.8

Using a design effect of 1.5

1.5× 305.8 = 458.7

The final sample size to be used for the study was rounded to the nearest whole number= 459

Using sample size of 460

3.7 SAMPLING TECHNIQUE

A multi-staged sampling technique comprising three stages was used. The study focused on public servants in selected MDAs, Benin City, Edo State.

STAGE 1: Selection of Ministries, Departments and Agencies (MDAs)

Benin City has a total of 72 Ministries, Departments and Agencies (MDAs), comprising 18 ministries and several departments and agencies. From this list, 10 MDAs were selected using simple random sampling to ensure equal chance of selection and reduce selection bias.

The selected MDAs included five (5) ministries and five (5) departments/agencies as follows:

- Ministries: Ministry of Health; Ministry of Education; Ministry of Budget, Planning and Economic Development; Ministry of Public Security and Safety; Ministry of Digital Economy, Science and Technology.
- Departments/Agencies: Edo State Hospitals Management Agency; State Universal Basic Education Board (SUBEB); Edo State Transport Authority; Edo State Civil Service Commission; Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC).

STAGE 2: Selection of Directorates/Departments within MDAs

Each selected MDA consists of several directorates or departments. From each MDA, specific directorates were selected using simple random sampling to ensure adequate representation of the different functional units within the organization. This approach ensured that all eligible staff within the MDAs had an equal probability of being included in the study**.**

STAGE 3: Selection of Respondents

Within each selected directorate, respondents were selected using simple random sampling. The number of participants selected from each MDA was proportionate to the staff population size of

that MDA to ensure fair representation across all strata. This also ensured that no respondent was selected more than once across different strata**.**

sampling fraction

The sampling fraction was calculated by dividing the minimum sample size by the total number of eligible public servants across the selected MDAs:

sampling fraction =460/972=0.473

Thus, approximately 47.3% of the eligible population within the selected MDAs was included in the study.

MINISTRIES, DEPARTMENTS & AGENCIES	**NUMBER OF PUBLIC SERVANTS**	**SAMPLE SIZE**
MINISTRY OF HEALTH	249	117
MINISTRY OF EDUCATION	120	57
MINISTRY OF BUDGET, PLANNING & ECONOMIC DEVELOPMENT	80	38
MINISTRY PUBLIC SECURITY & SAFETY	67	32
MINISTRY OF SCIENCE & TECHNOLOGY	25	12
EDO STATE HOSPITALS MANAGEMENT AGENCY	154	73
STATE UNIVERSAL BASIC EDUCATION BOARD (SUBEB)	110	52
CIVIL SERVICE COMMISSION	57	27
EDO STATE OIL AND GAS PRODUCING AREAS DEVELOPMENT COMMISSION (EDSOGPADEC)	90	42
EDO STATE TRANSPORT AUTHORITY	20	10
TOTAL	972	460

3.8 DATA MANAGEMENT

3.8.1 Tools for data collection

Data was collected using a detailed, structured, self-administered questionnaire adapted from the Mini international neuropsychiatric interview (MINI), Depression, anxiety and stress (DASS) scale, adopted Efffort reward imbalance (ERI) scale and a modified Job Demands-Resources(JD-R)model was used to evaluate mental illness and contributing factors.

Questionnaire: Depression, Anxiety, and Stress (DAAS) scale and MINI(mini international neuropsychiatric interview), is considered the "gold standard" and includes scales to assess depressive, anxiety and stress disoders among others. The questionnaire consisted of both open- and close-ended questions and was organized into five sections with the purpose of collecting the following information.

Section A: Socio-demographic information of respondents

This section covered respondent's responses on age, sex (categorized as male and female), ethnic group, religion and marital status, departments, or agencies, length of career, and number of work hours/ periods per week.

Section B: Knowledge of mental ilness among public servants in Benin City

This section assessed respondents' knowledge of mental health, source of the information and their knowledge on coping strategies on the subject matter.

Section C: Attitude towards mental illness among public servants in Benin City

This section assessed the various attitudes of the respondents towards mental health.

Section D: **Prevalence of mental illness among Public Servants in Benin City**

This section assessed mental illness across depression, anxiety, and stress. Findings provided insight into overall mental health status.

Section E: Factors Influencing mental illness and among Public Servants in Benin City

This section examined how role conflicts, autonomy, organizational support, and work environment affect staff's mental well-being

Results identified key workplace factors that influence mental health status.

3.8.2 Method of Data Collection

Questionnaires was distributed during break periods. Informed consent was obtained, and participants was briefed on the study purpose and privacy measures.

3.8.3 Training of Research Assistants

Two research assistants, both medical students, were recruited and trained for the study. The training focused on the objectives of the study, study procedures, and ethical considerations including informed consent, confidentiality, and voluntary participation. They were also trained on proper administration of the questionnaire, accurate recording of responses, and techniques to minimize interviewer bias and ensure consistency in data collection.

3.8.4 Pretesting

The questionnaire was pretested among public servants in University of Benin (UNIBEN) and University of Benin Teaching Hospital (UBTH) in Benin City. 10% of the sample size (53 questionnaires) was used to assess validity, sensitivity, comprehensibility, and reliability.

3.8.5 Data Analysis

Data was collected, screened for completeness, coded, and analyzed using IBM SPSS Version 27.0.

3.8.6 Scoring of Variables

The scoring systems for knowledge, attitude, mental illness prevalence, and factors influencing mental health were meticulously structured using established rubrics, such as Likert scales and

thresholds derived from the adopted assessment tools. All raw scores was converted to percentages to facilitate standardized interpretation.

1. Knowledge of mental health

Respondents' knowledge of mental health, was assessed using a total of 16 (11 multiple response question) questions. modified version of the Knowledge, Attitude and Prevalence Questionnaire (KAPQ), was scored based on the total number of correct responses (13 correct responses) which was subsequently converted to percentages. Individuals with scores (<13 correct answers) <50% were said to have poor knowledge while those with scores (≥13correct responses) ≥50% were said to have good knowledge

2. Attitude Towards mental health

For section c, the Likert Scale ranged from Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree. Strongly Agree and Agree were merged and Strongly Disagree and Disagree were also merged. The responses were then analyzed based on appropriateness and a score of 1 was given to an appropriate response while inappropriate responses were assigned a score of 0. Eight (8) questions were you used to assess attitude. The average was taken and converted to a percentage.

In application:

0-50%: Negative Attitude

50-100%: Positive Attitude.

3. Prevalence of mental health status

The prevalence of mental health was assessed through a modified Depression, anxiety and stress (DASS) scale which consists of 21 items divided into three subscales: depression, anxiety, and

stress, with each subscale containing seven questions. This tool explores three components of mental health: depression (item 30-36), anxiety (item 37-43) and stress (item 44-50)

Total scores were calculated for each subscale (21 marks in each subscale).

Depression Component (Item 31 – 37)

Total score 0-9 = Normal

Total score 10-13 = mildly depressed

Total score 14 – 20 = Moderately Depressed

Total score 21-27 = severely depressed

Total score ≥ 28 = Extremely severely

- Anxiety Component (Item 38-44)

Total score 0-7= Normal

Total score 8-9= Mild anxiety

Total score 10 – 14= Moderate anxiety

Total score 15-19= Severe anxiety

Total score ≥20= Extremely severe anxiety

- Stress component (Item 45-51)

Total score ≤ 0-14= Normal

Total score 15-18= mild stress

Total score 19-25= Moderate stress

Total score 16-33= severe stress

Total score ≥34 = Extremely severe stress

. The instrument consists of 21 items divided into three subscales: depression, anxiety, and stress, with each subscale containing seven questions. Respondents indicated the extent to which each

statement applied to them over the past week using a 4-point Likert scale: “Never” scored 0, “Sometimes” scored 1, “Often” scored 2, and “Almost Always” scored 3.

Scores for each subscale were obtained by summing the responses to the seven corresponding items. The depression, anxiety, and stress scores were then interpreted according to the standard DASS-21 severity classification. Respondents whose scores fell within the normal range were classified as not having the condition, while those with mild, moderate, severe, or extremely severe scores were classified as having the condition.

4. Factors Influencing mental health status

These factors were not scored in isolation but were analyzed for their association with the dichotomously scored variables of depression, anxiety, stress and overall mental health status. Statistical analyses, such as Chi-square tests, were employed to examine the significance of these associations, thereby identifying key factors influencing the outcomes.

3.8.7 DATA PRESENTATION

Results was presented in prose, frequently tables and pie charts.

3.9 ETHICAL CONSIDERATION

The research project was conducted under the guidance of a consulting expert from the Department of Public Health and Community Medicine at the University of Benin Teaching Hospital with Protocol number: **ADM/E 22/A/VOL. VII/1486549127295**. Prior to commencement of the study, a detailed proposal outlining the objectives and methodology was submitted for review by the Edo State Ministry of Health for ethical approval. Participants was informed that their involvement was completely voluntary, and that they retained the freedom to discontinue their participation at any point during the process without fear of repercussions or negative consequences and participants provided informed consent. Data confidentiality and

privacy was strictly maintained thus no personally identifiable information such as names or addresses were collected through the questionnaires used for data gathering.

This study provides valuable insight into the knowledge, attitude, prevalence, and factors affecting mental health among public servants in Edo State. The findings will help inform policymakers and relevant stakeholders in developing targeted interventions, workplace mental health policies, and awareness programs. It will also contribute to existing literature and serve as a reference for future research in public health and occupational mental health.

3.10 LIMITATIONS TO STUDY

The information obtained was based on self-reporting and was therefore subject to recall bias. Recall bias was minimized by incorporating timelines within the questionnaire, while the use of simple and clear questions helped respondents to accurately recall information. In addition, social desirability bias may have occurred, as some respondents could have provided answers they considered socially acceptable rather than their true experiences or opinions. To reduce this, respondents were assured of confidentiality and anonymity, encouraging honest responses. Selection bias was also a possible limitation because participation was limited to public servants who were available and willing to participate during the study period. This was minimized through the use of a multistage sampling technique and proportional allocation to ensure fair representation of the different ministries, departments, and agencies included in the study.

CHAPTER FOUR

RESULTS

A total of 460 questionnaires were filled and collected from respondents, giving a response rate 100%. The results was presented in line with the sections of the questionnaire which are as follows:

Section A: Sociodemographic information of respondents

Section B: Knowledge of mental health and mental health disorders

Section C: Attitude towards mental health and mental health care

Section D: Prevalence of mental health problems among respondents

Section E: Factors influencing mental health status

SECTION A

SOCIODEMOGRAPHIC INFORMATION OF RESPONDENTS

Table 1: Sociodemographic information of respondents (n = 460)

Variable	Frequency	Percent
Age group(years)		
20-34	234	50.9
35-44	169	36.7
≥45	57	12.4
Mean=35±6.9 years		
Sex		
Female	256	55.7
Male	204	44.3
Ethnicity		
Benin	257	55.9
Esan	95	20.7
Urhobo	60	13.0
Yoruba	17	3.7
Etsako	4	0.8
Other*	27	5.9
Religion		
Christianity	433	94.1
Islam	27	5.9
Marital status		
Never married	97	21.1
Ever married**	363	78.9
Level of education		
Primary leaving certificate	2	0.4
Basic education certificate	2	0.4
SSCE	11	2.4
OND	8	1.7
HND	78	17.0
BSc	212	46.1
Master's degree	138	30.0
PhD	9	2.0
Current Ministry/department/agency		
Ministry of Health	102	22.2
Ministry of Education	60	13.0
Transport Authority	59	12.8
State Agency Universal Basic Education Board (SUBEB)	46	10.0
Edo State Hospitals Management Agency		
Ministry of Science and Technology	34	7.4
Civil service commission	32	7.0
Ministry Public Security and Safety	30	6.5
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	26 9	5.7 2.0
Current job/role/position		
Management and Administration	182	39.6
Data and IT	141	30.7
Healthcare	50	10.9
Logistics, Procurement and Records	30	6.5
Finance and Accounting	23	5.0
Education and Training	12	2.6
Technical and Engineering	8	1.7
Specialized and other roles	8	1.7
Human resources	6	1.3
Staff rank/level		
Junior cadre (level 1-6)	108	23.5
Senior cadre (level 7-12)	245	53.3
Directorate senior cadre (level 13)	107	23.2
Years of work experience		
<5	217	47.2
≥5	243	52.8
Average work hours per day		
≤8	387	84.1
>8	73	15.9
Average monthly income (₦)		
<70,000	11	2.4
70,000 - 199,999	207	45.0
200,000 - 299,999	225	48.9
300,000 - 399,999	11	2.4
≥400,000	6	1.3
Socioeconomic status		
low	256	55.7
middle	197	42.8
high	7	1.5

*Anioma, ijaw, Tiv, akwa-ibom, Igarra; **Married, divorced, widowed

The respondents were predominantly aged 20–34 years, accounting for 234 (50.9%), followed by those aged 35–44 years, 169 (36.7%), while 57 (12.4%) were aged 45 years and above. The mean age of the respondents was 35 ± 6.9 years.

More than half of the respondents were female, 256 (55.7%), while 204 (44.3%) were male.

In terms of ethnicity, 257 (55.9%) were Benin, 95 (20.7%) were Esan, 60 (13.0%) were Urhobo, 17 (3.7%) were Yoruba, 4 (0.8%) were Etsako, and 27 (5.9%) belonged to other ethnic groups.

The majority of respondents were Christians, 433 (94.1%), while 27 (5.9%) were Muslims.

Regarding marital status, 97 (21.1%) were never married, 363 (78.9%) were ever married.

In terms of educational level, 2 (0.4%) had primary leaving certificate, 2 (0.4%) had basic education certificate, 11 (2.4%) had SSCE, 8 (1.7%) had OND, 78 (17.0%) had HND, 212 (46.1%) had BSc, 138 (30.0%) had Master's degree, and 9 (2.0%) had PhD.

Regarding current ministry or agency, 102 (22.2%) worked in the Ministry of Health, 62 (13.5%) in the Ministry of Budget, Planning and Economic Development, 60 (13.0%) in the Ministry of Education, 59 (12.8%) in the Transport Authority, 46 (10.0%) in the State Universal Basic Education Board, 34 (7.4%) in the Edo State Hospitals Management Agency, 32 (7.0%) in the Ministry of Science and Technology, 30 (6.5%) in the Civil Service Commission, 26 (5.7%) in the Ministry of Public Security and Safety, and 9 (2.0%) in the Edo State Oil and Gas Producing Areas Development Commission.

With respect to job role, 182 (39.6%) were in management and administration, 141 (30.7%) in data and IT, 50 (10.9%) in healthcare, 30 (6.5%) in logistics, procurement and records, 23 (5.0%)

in finance and accounting, 12 (2.6%) in education and training, 8 (1.7%) in technical and engineering, 8 (1.7%) in specialized roles, and 6 (1.3%) in human resources.

Regarding staff rank, 108 (23.5%) were in junior cadre, 245 (53.3%) in senior cadre, and 107 (23.2%) in directorate senior cadre.

In terms of work experience, 217 (47.2%) had less than 5 years of experience while 243 (52.8%) had 5 years or more.

Most respondents, 387 (84.1%), worked 8 hours or less per day while 73 (15.9%) worked more than 8 hours.

Regarding monthly income, 11 (2.4%) earned less than ₦70,000, 207 (45.0%) earned ₦70,000–₦199,999, 225 (48.9%) earned ₦200,000–₦299,999, 11 (2.4%) earned ₦300,000–₦399,999, and 6 (1.3%) earned ₦400,000 or more.

Majority 256 (55.7%) were in the socioeconomic class 1, 197 (42.8%) were in class 2 and only 7 (1.5%) were in class 3.

SECTION B

KNOWLEDGE OF MENTAL HEALTH AND MENTAL HEALTH DISORDERS

Table 2: Awareness and source of information of mental health and mental health disorders (n = 460)

Variable	Frequency	Percent
Awareness		
Yes	435	94.6
No	25	5.74
Source of information(n=435)**		
Social media	307	70.6
Television/radio	302	69.4
Friends and colleagues	224	51.5
Health professionals	193	44.4
Workplace trainings/seminars	157	36.1
School/academics materials	120	27.6

****Multiple choice question**

The majority of respondents, 435 (94.6%), had heard of mental health or mental health disorders. The sources of information included social media, 307 (70.6%), television or radio, 302 (69.4%), friends and colleagues, 224 (51.5%), health professionals, 193 (44.4%), workplace trainings or seminars, 157 (36.1%), and school or academic materials, 120 (27.6%).

Table 3: Knowledge of mental health and mental health disorders (n = 435)

Variable	Frequency	Percent
Description of mental health		
A person's emotional, psychological, and social well-being	388	89.2
Absence of physical illness only	26	6.0
Permanent mental illness	18	4.1
Ability to work without stress	3	0.7
Aspects of mental health conditions		
Affect thinking, mood, behavior, or functioning	415	95.4
Occur only in childhood	19	4.4
Cannot be treated or managed	1	0.2
Common mental health conditions**		
Depression	347	86.0
Anxiety	269	61.8
Stress-related disorders	251	57.7
Substance use	161	37.0
Hypertension	68	15.6
Diabetes mellitus	32	7.4
Symptoms that indicate poor mental health**		
Persistent sadness or low mood	340	78.2
Difficulty sleeping or concentrating	220	50.6
Excessive worry or fear	210	48.3
Loss of interest in daily activities	186	42.8
Increased productivity at all times	76	17.5
Effect of mental health disorders on work		
Reducing productivity and efficiency	415	95.4
Improving concentration at all times	8	1.8
Having no effect on work output	8	8
Eliminating workplace stress	4	0.9
Importance of early recognition of mental health problems		
Allows timely support and treatment	417	95.9
Makes the condition worse	13	2.9
Leads to job termination	3	0.7
It is unnecessary for adults	2	0.2
Best management for mental health disorders		
Professional care, social support, and coping strategies	388	89.2
Ignoring symptoms	26	6.0
Isolation from others	18	4.1

****Multiple choice question** **Cronbach's alpha = 0.856**

Regarding the description of mental health, 388 (89.2%) correctly identified it as a person's emotional, psychological, and social well-being, 26 (6.0%) identified it as absence of physical illness only, 18 (4.1%) as permanent mental illness, and 3 (0.7%) as ability to work without stress. In terms of aspects of mental health conditions, 415 (95.4%) correctly stated that they affect thinking, mood, behavior, or functioning, while 19 (4.4%) stated that they occur only in childhood and 1 (0.2%) stated that they cannot be treated or managed.

With respect to common mental health conditions, 347 (86.0%) identified depression, 269 (61.8%) identified anxiety, 251 (57.7%) identified stress-related disorders, 161 (37.0%) identified substance use, 68 (15.6%) identified hypertension, and 32 (7.4%) identified diabetes mellitus.

Regarding symptoms of poor mental health, 340 (78.2%) identified persistent sadness or low mood, 220 (50.6%) difficulty sleeping or concentrating, 210 (48.3%) excessive worry or fear, 186 (42.8%) loss of interest in daily activities, and 76 (17.5%) increased productivity at all times.

In terms of the effects of mental health disorders on work, 415 (95.4%) stated that they reduce productivity and efficiency, 8 (1.8%) stated that they improve concentration at all times, 8 (1.8%) stated that they have no effect on work output, and 4 (0.9%) stated that they eliminate workplace stress.

Regarding the importance of early recognition, 417 (95.9%) stated that it allows timely support and treatment, 13 (2.9%) stated that it makes the condition worse, 3 (0.7%) stated that it leads to job termination, and 2 (0.2%) stated that it is unnecessary for adults. With respect to management, 388 (89.2%) identified professional care, social support, and coping strategies, while 26 (6.0%) chose ignoring symptoms and 18 (4.1%) chose isolation from others.

Table 4: Correctness of responses on knowledge of mental health and mental health disorders (n = 435)

Knowledge variable	Correct n (%)	Incorrect n (%)
Knowledge on description of mental health		
A person's emotional, psychological, and social well-being	388 (89.2)	47 (10.8)
Knowledge on aspects of mental health conditions		
Affect thinking, mood, behavior, or functioning	415 (95.4)	20 (4.6)
Knowledge on common mental health conditions		
Depression	347 (86.0)	88 (14.0)
Anxiety	269 (61.8)	166 (38.2)
Stress-related disorders	251 (57.7)	184 (42.3)
Substance use	161 (37.0)	274 (63.0)
Hypertension	367 (84.4)	68 (15.6)
Diabetes mellitus	403 (92.6)	32 (7.4)
Knowledge of symptoms that indicate poor mental health	340 (78.2)	95 (21.8)
Persistent sadness or low mood	220 (50.6)	215 (49.4)
Difficulty sleeping or concentrating	210 (48.3)	225 (51.7)
Excessive worry or fear	186 (42.8)	249 (57.2)
Loss of interest in daily activities	359 (92.5)	76 (7.5
Increased productivity at all times		
Knowledge of effect of mental health disorders on work	415 (95.4)	20 (4.6)
Reducing productivity and efficiency		
Knowledge on importance of early recognition of mental health problems		
Allows timely support and treatment	417 (95.9)	18 (4.1)
Knowledge on management of mental health disorders		
Professional care, social support, and coping strategies	388 (89.2)	47 (10.8)

Mental health was correctly identified as a person's emotional, psychological, and social well-being by 388 (89.2%) respondents, while 47 (10.8%) gave incorrect responses. A total of 415 (95.4%) correctly stated that mental health conditions affect thinking, mood, behavior, or functioning, whereas 20 (4.6%) responded incorrectly.

Depression was correctly identified as a mental health condition by 347 (86.0%) respondents, while 57 (14.0%) did not identify it correctly. Anxiety was correctly identified by 269 (61.8%) respondents, while 166 (38.2%) gave incorrect responses. Stress-related disorders were correctly identified by 251 (57.7%), whereas 184 (42.3%) did not. Substance use disorders were correctly identified by 161 (37.0%) respondents, while 274 (63.0%) failed to identify them correctly.

Hypertension was incorrectly identified as a mental health condition by 68 (15.6%) respondents, while 367 (84.4%) correctly did not identify it as such. Diabetes mellitus was incorrectly identified as a mental health condition by 32 (7.4%) respondents, while 403 (92.6%) correctly did not identify it.

Persistent sadness or low mood was correctly identified as a symptom of poor mental health by 340 (78.2%) respondents, while 95 (21.8%) did not identify it correctly. Difficulty sleeping or concentrating was correctly identified by 220 (50.6%) respondents, while 215 (49.4%) gave incorrect responses. Excessive worry or fear was correctly identified by 210 (48.3%) respondents, whereas 225 (51.7%) did not identify it correctly. Loss of interest in daily activities was correctly identified by 186 (42.8%) respondents, while 249 (57.2%) gave incorrect responses. Increased productivity at all times was incorrectly identified as a symptom by 76 (17.5%) respondents, while 359 (82.5%) correctly did not identify it as a symptom.

Mental health disorders were correctly identified as reducing productivity and efficiency by 415 (95.4%) respondents, while 20 (4.6%) gave incorrect responses. A total of 8 (1.8%) incorrectly stated that mental health problems improve concentration at all times, while 427 (98.2%) correctly did not. Similarly, 8 (1.8%) incorrectly stated that mental health problems have no effect on work output, while 427 (98.2%) correctly disagreed. A total of 4 (0.9%) incorrectly stated that mental health problems eliminate workplace stress, while 431 (99.1%) correctly did not identify this as true.

Early recognition of mental health conditions was correctly identified as allowing timely support and treatment by 417 (95.9%) respondents, while 18 (4.1%) gave incorrect responses. A total of 13 (2.9%) incorrectly stated that early recognition makes the condition worse, while 422 (97.1%) correctly disagreed. Three (0.7%) incorrectly stated that early recognition leads to job termination, while 432 (99.3%) correctly disagreed. Two (0.5%) incorrectly stated that early recognition is unnecessary for adults, while 433 (99.5%) correctly disagreed.

Professional care, social support, and coping strategies were correctly identified as appropriate management options by 388 (89.2%) respondents, while 47 (10.8%) did not identify them correctly. Ignoring symptoms was incorrectly identified as a management option by 26 (6.0%) respondents, while 409 (94.0%) correctly did not identify it as appropriate. Isolation from others was incorrectly identified by 18 (4.1%) respondents, while 417 (95.9%) correctly did not identify it as a management option.

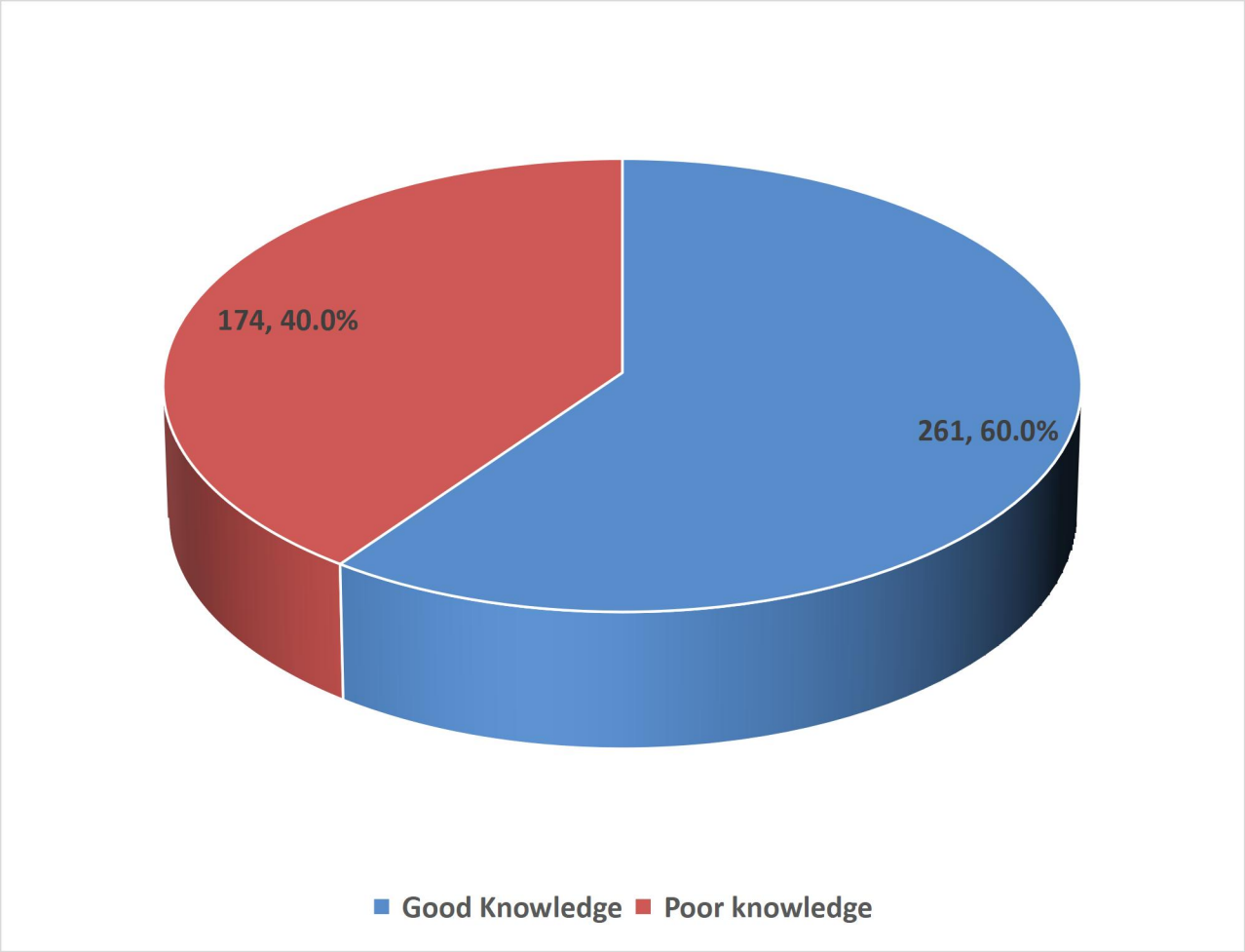

Figure 1: Level of knowledge of mental health and mental health conditions among public servants

Among the 435 respondents who had heard about mental health or mental health disorders, majority, 261 (60.0%) demonstrated good knowledge, while the remaining 174 (40.0%) demonstrated poor knowledge.

Table 5: Factors associated with knowledge of mental health and mental health status (n = 435)

Variable	Knowledge		Test statistics (χ^2)	p-value
	Good (n=261) n (%)	Poor (n=174) n (%)		
Age (years)			3.156	0.172
20-34	134 (62.6)	80 (37.4)		
35-44	90 (54.5)	75 (45.5)		
≥45	37 (66.1)	19 (33.9)		
Sex			25.151*	**<0.001#**
Male	88 (46.6)	101 (53.4)		
Female	173 (70.3)	73 (29.7)		
Ethnicity			10.162*	**0.002#**
Edo indigenes	186 (55.9)	147 (44.1)		
Non-Edo indigenes	75 (73.5)	27 (26.5)		
Religion			3.791*	0.067
Christianity	240 (58.8)	168 (41.2)		
Islam	21 (77.8)	6 (22.2)		
Marital status			0.126*	0.800
Ever married	215 (60.4)	141 (39.6)		
Never married	46 (58.2)	33 (41.8)		
Level of Education			24.851	**<0.001#**
Primary leaving certificate	0 (0.0)	2 (100.0)		
SSCE	6 (54.5)	5 (45.5)		
OND	8 (100.0)	0 (0.0)		
HND	32 (42.7)	43 (57.3)		
BSc	128 (61.5)	80 (38.5)		
MSc	78 (63.9)	44 (36.1)		
PhD	9 (100.0)	0 (0.0)		
Current Ministry/ Department/Agency			27.062	**0.001#**
Ministry of Health.	74 (77.1)	22 (22.9)		
Ministry of Budget, Planning & Economic Development	31 (50.8)	30 (49.2)		
Ministry of Education	42 (72.4)	16 (27.6)		
Transport Authority	29 (51.8)	27 (48.2)		
State Agency Universal Basic Education Board (SUBEB)	25 (55.6)	20 (44.4)		
Edo State Hospitals Management Agency	14 (43.8)	18 (56.3)		
Ministry of Science and Technology	13 (59.1)	9 (40.9)		
Civil service commission	13 (43.3)	17 (56.7)		
Ministry Public Security and Safety	14 (53.8)	12 (46.2)		
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	6 (66.7)	3 (33.3)		
Current job/role/position			16.666	**0.039#**
Management and Administration	111 (62.0)	68 (38.0)		
Data and IT	81 (60.4)	53 (39.6)		
Healthcare	30 (73.2)	11 (26.8)		
Logistics, Procurement and Records	12 (40.0)	18 (60.0)		
Finance and Accounting	11 (52.4)	10 (47.6)		
Education and Training	9 (75.0)	3 (25.0)		
Technical and Engineering	1 (25.0)	3 (75.0)		
Specialized and other roles	5 (62.5)	3 (37.5)		
Human resources	1 (16.7)	5 (83.3)		
Staff rank/level			3.096	0.213
Junior cadre (level 1-6)	49 (52.1)	45 (47.9)		
Senior cadre (level 7-12)	148 (62.2)	90 (37.8)		
Directorate senior cadre (level 13)	64 (62.1)	39 (37.9)		
Years of work experience			0.099*	0.769
<5	121 (60.8)	78 (39.2)		
≥5	140 (59.3)	96 (40.7)		
Average work hours per day			2.873*	0.112
≤8	212 (58.2)	152 (41.8)		
>8	49 (69.0)	22 (31.0)		
Average monthly income (₦)			9.645	**0.047#**
<70,000	9 (81.8)	2 (18.2)		
70,000 - 199,999	122 (62.9)	72 (37.1)		
200,000 - 299,999	124 (57.4)	92 (42.6)		
300,000 - 399,999	2 (22.2)	7 (77.8)		
≥400,000	4 (80.0)	1 (20.0)		
Socioeconomic status			2.483	0.289
Low	152 (63.3)	88 (36.7)		
Middle	105 (55.9)	83 (44.1)		
High	4 (57.1)	3 (42.9)		

*Fischer's Exact test; # Statistically significant

As age increased, the proportion of respondents with good knowledge did not follow a consistent pattern, with 134 (62.6%) among those aged 20–34 years, 90 (54.5%) among those aged 35–44 years, and 37 (66.1%) among those aged ≥45 years having good knowledge (p=0.172), and this was not statistically significant.

A higher proportion of females, 173 (70.3%), had good knowledge compared to males, 88 (46.6%) (p<0.001), and this was statistically significant.

A higher proportion of non-Edo indigenes, 75 (73.5%), had good knowledge compared to Edo indigenes, 186 (55.9%) (p=0.002), and this was statistically significant.

A higher proportion of Muslims, 21 (77.8%), had good knowledge compared to Christians, 240 (58.8%) (p=0.067), although this was not statistically significant.

The proportion with good knowledge 215 (60.4%) among those had ever been married, compared to 46 (58.2%) among never married respondents, and this was not statistically significant (p=0.800).

As level of education increased, the proportion of respondents with good knowledge generally increased, with 0 (0.0%) among those with primary leaving certificate, 6 (54.5%) among those with SSCE, 8 (100.0%) among those with OND, 32 (42.7%) among those with HND, 128 (61.5%) among those with BSc, 78 (63.9%) among those with MSc, and 9 (100.0%) among those with PhD having good knowledge (p<0.001), and this was statistically significant.

The proportion with good knowledge varied across ministries, with 74 (77.1%) in Ministry of Health, 31 (50.8%) in Ministry of Budget, Planning and Economic Development, 42 (72.4%) in Ministry of Education, 29 (51.8%) in Transport Authority, 25 (55.6%) in SUBEB, 14 (43.8%) in

Edo State Hospitals Management Agency, 13 (59.1%) in Ministry of Science and Technology, 13 (43.3%) in Civil Service Commission, 14 (53.8%) in Ministry of Public Security and Safety, and 6 (66.7%) in EDSOGPADEC (p=0.001), and this was statistically significant.

The proportion with good knowledge differed across job roles, with 111 (62.0%) in management and administration, 81 (60.4%) in data and IT, 30 (73.2%) in healthcare, 12 (40.0%) in logistics, procurement and records, 11 (52.4%) in finance and accounting, 9 (75.0%) in education and training, 1 (25.0%) in technical and engineering, 5 (62.5%) in specialized roles, and 1 (16.7%) in human resources (p=0.039), and this was statistically significant.

As staff rank increased from junior to senior and directorate levels, the proportion with good knowledge increased slightly, with 49 (52.1%) among junior cadre, 148 (62.2%) among senior cadre, and 64 (62.1%) among directorate cadre (p=0.213), although this was not statistically significant.

As years of work experience increased, the proportion with good knowledge remained similar, with 121 (60.8%) among those with <5 years and 140 (59.3%) among those with ≥5 years (p=0.769), and this was not statistically significant.

As average work hours increased from ≤8 to >8 hours, the proportion with good knowledge increased, with 212 (58.2%) among those working ≤8 hours and 49 (69.0%) among those working >8 hours (p=0.112), although this was not statistically significant.

As income increased, the proportion with good knowledge did not follow a consistent pattern, with 9 (81.8%) among those earning <₦70,000, 122 (62.9%) among ₦70,000–₦199,999, 124 (57.4%) among ₦200,000–₦299,999, 2 (22.2%) among ₦300,000–₦399,999, and 4 (80.0%) among ≥₦400,000 (p=0.047), and this was statistically significant.

As socioeconomic class decreased from class 1 to class 2, the proportion of respondents with good knowledge decreased from 152 (63.3%) to 105 (55.9%), followed by a slight increase to 4 (57.1%) in class 3. However, this variation was not statistically significant ($p = 0.289$).

Table 6: Predictors of good knowledge among respondents

Variable	B (Regression Coefficient)	AOR	95% CI (Lower)	95% CI (Upper)	p-value
Age (years)	0.057	1.059	1.020	1.100	**0.003***
Sex					
Female		1			
Male	-0.955	0.385	0.241	0.616	**<0.001***
Ethnicity					
Edo		1			
Non-Edo	0.593	1.810	1.001	3.271	**0.050***
Religion					
Christian		1			
Muslim	0.985	2.678	0.876	8.183	0.084
Level of education					
Primary education	-1.095	0.334	0.073	1.530	0.158
Senior Secondary Certificate Examination	-0.105	0.900	0.490	1.654	0.735
National Diploma	20.508	0.000	0.000	0.000	0.999
Higher National Diploma	-0.638	0.529	0.269	1.037	0.064
Bachelor		1			
Master's degree	18.936	0.000	0.000	0.000	0.999
PhD	-19.612	0.000	0.000	0.000	0.999
Ministry					
Ministry of Budget, Planning and Economic Development		1			
Civil Service Commission	-0.334	0.716	0.228	2.246	0.567
Ministry of Education	1.261	3.527	1.419	8.767	**0.007***
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	1.336	3.803	0.685	21.129	0.127
Ministry of Health	2.187	8.906	3.567	22.235	**<0.001***
Edo State Hospitals Management Agency	-0.851	0.427	0.145	1.259	0.123
Ministry of Public Security and Safety	-0.265	0.767	0.252	2.333	0.640
Ministry of Science and Technology	0.394	1.483	0.448	4.905	0.518
State Universal Basic Education Board	0.098	1.103	0.407	2.986	0.847
Transport Authority	0.027	1.028	0.422	2.500	0.952
Current cadre					
Director		1			
Junior cadre	-1.504	0.222	0.087	0.568	**0.002***
Senior cadre	-0.856	0.425	0.205	0.881	**0.021***
Years of work experience					
≤5 years		1			
≥5 years	-0174	0.841	0.485	1.456	0.536
Average working hours					
≤8 hours		1			
>8 hours	0.866	2.378	1.228	4.605	**0.010***
Average monthly income (₦)					
≥400,000		1			
<70,000	2.403	11.056	0.522	234.346	0.123
70,000–199,999	0.876	2.400	0.214	26.935	0.478
200,000–299,999	-0.612	0.542	0.053	5.513	0.605
300,000–399,999	-2.340	0.096	0.005	1.932	0.126

R^2=25.9-31.95%, AOR= Adjusted Odds Ratio, 95% CI

Increasing age was significantly associated with higher odds of good knowledge, with respondents being more likely to have good knowledge as age increased and this was statistically significant (AOR = 1.059; 95% CI: 1.020–1.100; p = 0.003).

Male respondents were less likely to have good knowledge compared to females (AOR = 0.385; 95% CI: 0.241–0.616; p < 0.001), and this was statistically significant

Non-Edo respondents were more likely to have good knowledge compared to Edo respondents (AOR = 1.810; 95% CI: 1.001–3.271; p = 0.050) though it approached statistical significance.

Religion was not significantly associated with knowledge, although Muslims were more likely to have good knowledge compared to Christians (AOR = 2.678; p = 0.084).

Level of education was not significantly associated with knowledge. Compared to respondents with a bachelor's degree, those with primary education (AOR = 0.334; p = 0.158) and Higher National Diploma (AOR = 0.529; p = 0.064) were less likely to have good knowledge, while those with Senior Secondary Certificate Examination (AOR = 0.900; p = 0.735) showed no meaningful difference.

With respect to ministry, respondents in the Ministry of Education were more likely to have good knowledge compared to those in the Ministry of Budget, Planning and Economic Development (AOR = 3.527; 95% CI: 1.419–8.767; p = 0.007). Similarly, those in the Ministry of Health were about 9 times more likely to have good knowledge (AOR = 8.906; 95% CI: 3.567–22.235; p < 0.001). Other ministries were not statistically significant.

Respondents in the junior cadre were less likely to have good knowledge compared to those in the director cadre (AOR = 0.222; 95% CI: 0.087–0.568; p = 0.002), and those in the senior cadre were also less likely (AOR = 0.425; 95% CI: 0.205–0.881; p = 0.021).

Respondents who worked more than 8 hours per day were more likely to have good knowledge compared to those who worked 8 hours or less (AOR = 2.378; 95% CI: 1.228–4.605; p = 0.010).

Average monthly income was not significantly associated with knowledge, although respondents earning less than ₦70,000 (AOR = 11.056; p = 0.123) and those earning ₦70,000–₦199,999 (AOR = 2.400; p = 0.478) were more likely to have good knowledge, while those earning ₦200,000–₦299,999 (AOR = 0.542; p = 0.605) and ₦300,000–₦399,999 (AOR = 0.096; p = 0.126) were less likely compared to those earning ≥₦400,000.

SECTION C

ATTITUDE TOWARDS MENTAL HEALTH AND MENTAL HEALTH CARE

Table 7: Attitude towards mental health and mental health care (n=460)

Variable	Attitudinal response				
	Strongly agree n (%)	Agree n (%)	Neutral n (%)	Disagree n (%)	Strongly disagree n (%)
Metal health is just as important as physical health	333 (72.4)	84 (18.3)	23 (5.0)	12 (2.6)	8 (1.7)
Mental health problems can significantly affect work performance and productivity	267 (58.0)	170 (37.0)	19 (4.1)	4 (0.9)	0 (0.0)
Public servants should feel comfortable discussing metal health issues at the workplace	188 (40.9)	175 (38.0)	82 (17.8)	10 (2.2)	5 (1.1)
Seeking professional help for mental health problems is a sign of weakness	54 (11.7)	68 (14.8)	39 (8.5)	87 (18.9)	212 (46.1)
Mental health services should be readily available to public servants	224 (48.7)	183 (39.8)	45 (9.8)	3 (0.7)	5 (1.1)
I will be willing to seek help if I experienced a mental health problem	224 (48.7)	205 (44.6)	31 (6.7)	0 (0.0)	0 (0.0)
Workplace mental health support programs can improve employees' well-being	266 (57.8)	158 (34.3)	34 (7.4)	2 (0.4)	0 (0.0)
Mental health problems can be successfully treated or managed with proper care	292 (63.5)	139 (30.2)	28 (6.1)	1 (0.2)	0 (0.0)

Responses to the attitude statements toward mental health and mental health care showed varied distributions across all response categories. For the statement that mental health is just as important as physical health, 333 (72.4%) strongly agreed, 84 (18.3%) agreed, 23 (5.0%) were neutral, 12 (2.6%) disagreed, and 8 (1.7%) strongly disagreed. Regarding the statement that mental health problems can significantly affect work performance and productivity, 267 (58.0%) strongly agreed, 170 (37.0%) agreed, 19 (4.1%) were neutral, 4 (0.9%) disagreed, and none

strongly disagreed. For the statement that public servants should feel comfortable discussing mental health issues at the workplace, 188 (40.9%) strongly agreed, 175 (38.0%) agreed, 82 (17.8%) were neutral, 10 (2.2%) disagreed, and 5 (1.1%) strongly disagreed.

With respect to the perception that seeking professional help for mental health problems is a sign of weakness, 54 (11.7%) strongly agreed, 68 (14.8%) agreed, 39 (8.5%) were neutral, 87 (18.9%) disagreed, and 212 (46.1%) strongly disagreed. Regarding the statement that mental health services should be readily available to public servants, 224 (48.7%) strongly agreed, 183 (39.8%) agreed, 45 (9.8%) were neutral, 3 (0.7%) disagreed, and 5 (1.1%) strongly disagreed. For willingness to seek help if they experienced a mental health problem, 224 (48.7%) strongly agreed, 205 (44.6%) agreed, 31 (6.7%) were neutral, while none disagreed or strongly disagreed.

Regarding workplace mental health support programs improving employees' well-being, 266 (57.8%) strongly agreed, 158 (34.3%) agreed, 34 (7.4%) were neutral, 2 (0.4%) disagreed, and none strongly disagreed. For the statement that mental health problems can be successfully treated or managed with proper care, 292 (63.5%) strongly agreed, 139 (30.2%) agreed, 28 (6.1%) were neutral, 1 (0.2%) disagreed, and none strongly disagreed.

Table 8: Appropriateness of Response to Questions on Attitude towards mental health and mental health care (n=460)

Variable	Attitudinal response	
	Appropriate n (%)	Inappropriate n (%)
Metal health is just as important as physical health	417 (90.7)	43 (9.3)
Mental health problems can significantly affect work performance and productivity	437 (95.0)	23 (5.0)
Public servants should feel comfortable discussing metal health issues at the workplace	363 (78.9)	97 (21.1)
Seeking professional help for mental health problems is a sign of weakness	299 (65.0)	161 (35.0)
W2		
I will be willing to seek help if I experienced a mental health problem	407 (88.5)	53 (11.5)
Workplace mental health support programs can improve employees' well-being	429 (93.9)	31 (6.1)
Mental health problems can be successfully treated or managed with proper care	424 (92.1)	36 (7.9)
	431 (93.7)	29 (36.3)

Cronbach's alpha = 0.743

Appropriate responses were observed among 417 (90.7%) respondents for the statement that mental health is just as important as physical health, while 43 (9.3%) had inappropriate responses. For the statement that mental health problems can significantly affect work performance and productivity, 437 (95.0%) had appropriate responses while 23 (5.0%) had inappropriate responses. Regarding comfort in discussing mental health issues at the workplace, 363 (78.9%) had appropriate responses while 97 (21.1%) had inappropriate responses.

For the perception that seeking professional help is a sign of weakness, 299 (65.0%) had appropriate responses while 161 (35.0%) had inappropriate responses. Regarding availability of mental health services, 407 (88.5%) had appropriate responses while 53 (11.5%) had inappropriate responses. For willingness to seek help, 429 (93.9%) had appropriate responses while 31 (6.1%) had inappropriate responses.

For workplace mental health support programs, 424 (92.1%) had appropriate responses while 36 (7.9%) had inappropriate responses. For the statement that mental health problems can be successfully treated or managed, 431 (93.7%) had appropriate responses while 29 (6.3%) had inappropriate responses.

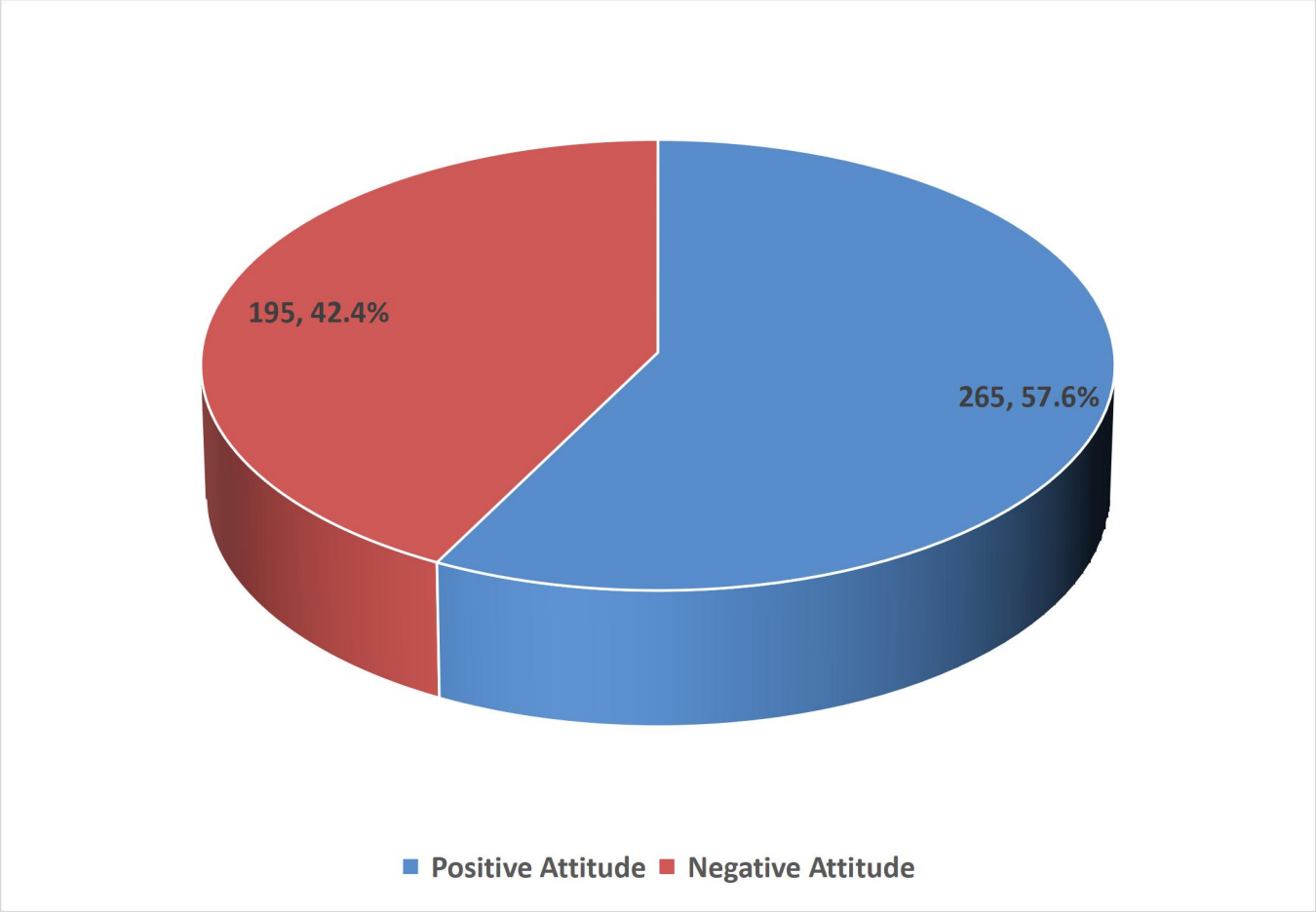

Figure 2: Level of attitude towards mental health and mental health care among public servants

Mental Two hundred and sixty five (57.6%) and 195(42.4%) of respondent had positive and negative attitude respectively towards mental health and mental health care.

Table 9: Factors associated with attitude of respondents towards mental health(n=460)

Variable	Attitudinal response		Test statistics (χ^2)	p-value
	Positive (n=265) n (%)	Negative (n=195) n (%)		
Age (years)			1.659	0.436
20-34	130 (55.6)	104 (44.4)		
35-44	98 (58.0)	71 (42.0)		
≥45	37 (64.9)	20 (35.1)		
Sex			1.514*	0.254
Male	124 (60.8)	80 (39.2)		
Female	141 (55.1)	115 (44.9)		
Ethnicity			0.779 *	0.430
Edo indigenes	209 (58.7)	147 (41.3)		
Non-Edo indigenes	56 (53.8)	48 (46.2)		
Religion			1.913*	0.228
Christianity	246 (56.8)	187 (43.2)		
Islam	19 (70.4)	8 (29.6)		
Marital status			1.850*	0.203
Ever married	215 (59.2)	148 (40.8)		
Never married	50 (51.5)	47 (48.5)		
Level of Education			25.006	**<0.001#**
Primary leaving certificate	1 (50.0)	1 (50.0)		
Basic education certificate	0 (0.0)	2 (100.0)		
SSCE	5 (45.5)	6 (54.5)		
OND	4 (50.0)	4 (50.0)		
HND	56 (71.8)	22 (28.2)		
BSc	130 (61.3)	44 (36.1)		
MSc	61 (44.2)	77 (55.8)		
PhD	8 (88.9)	1 (11.1)		
Current Ministry/ Department/Agency			49.984	**<0.001#**
Ministry of Health	35 (34.3)	67 (65.7)		
Ministry of Budget, Planning & Economic Development	37 (59.7)	25 (40.3)		
Ministry of Education				
Transport Authority	29 (48.3)	31 (51.7)		
State Agency Universal Basic Education Board (SUBEB)	42 (71.2)	17 (28.8)		
Edo State Hospitals Management Agency	31 (67.4)	15 (32.6)		
Ministry of Science and Technology				
Civil service commission	25 (73.5)	9 (26.5)		
Ministry Public Security and Safety	16 (50.0)	16 (50.0)		
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	27 (90.0)	3 (10.0)		
	16 (61.5)	10 (38.5)		
	7 (77.8)	2 (22.2)		
Current job/role/position			46.256	**<0.001#**
Management and Administration	105 (57.7)	77 (42.3)		
Data and IT	106 (75.2)	35 (24.8)		
Education and Training	6 (50.0)	6 (50.0)		
Healthcare	13 (26.0)	37 (74.0)		
Logistics, Procurement and Records	12 (40.0)	18 (60.0)		
Finance and Accounting	10 (43.5)	13 (56.5)		
Technical and Engineering	4 (50.0)	4 (50.0)		
Specialized and other roles	4 (50.0)	4 (50.0)		
Human resources	1 (16.7)	5 (83.3)		
Staff rank/level			4.165	0.125
Junior cadre (level 1-6)	54 (50.0)	54 (50.0)		
Senior cadre (level 7-12)	143 (58.4)	102 (41.6)		
Directorate senior cadre (level 13)	68 (63.6)	39 (36.4)		
Years of work experience			0.141*	0.777
<5	127 (58.5)	90 (41.5)		
≥5	138 (56.8)	105 (43.2)		
Average work hours per day				
≤8	215 (55.6)	172(44.4)	4.209*	0.052
>8	50 (68.5)	23 (31.5)		
Average monthly income (₦)				
<70,000	8 (72.7)	3 (27.3)	13.463	**0.009#**
70,000 - 199,999	127 (61.4)	80 (38.6)		
200,000 - 299,999	127 (56.4)	98 (43.6)		
300,000 - 399,999	2 (18.2)	9 (81.8)		
≥400,000	1 (16.7)	5 (83.3)		
Socioeconomic status			12.633	**0.002#**
low	130 (50.8)	126 (49.2)		
middle	132 (67.0)	65 (33.0)		
High	3 (42.9)	4 (57.1)	0.579	0.484
Knowledge	154(59.0)	107(41.0)		
Good	109(62.6)	65(37.4)		
Poor				

*Fischer's Exact test; # Statistically significant

As age increased, the proportion of respondents with positive attitude increased from 130 (55.6%) among those aged 20–34 years to 98 (58.0%) among those aged 35–44 years and further to 37 (64.9%) among those aged 45 years and above (p=0.436), although this was not statistically significant.

A higher proportion of males, 124 (60.8%), had positive attitude compared to females, 141 (55.1%) (p=0.254), and this was not statistically significant.

A higher proportion of Edo indigenes, 209 (58.7%), had positive attitude compared to non-Edo indigenes, 56 (53.8%) (p=0.430), and this was not statistically significant.

A higher proportion of Muslims, 19 (70.4%), had positive attitude compared to Christians, 246 (56.8%) (p=0.228), and this was not statistically significant.

The proportion with good attitude 215 (59.2%) among those had ever been married, compared to 50 (51.5%) among never married respondents, and this was not statistically significant (p=0.203).

As level of education increased, the proportion of respondents with positive attitude varied across categories, with 1 (50.0%) among those with primary leaving certificate, none among those with basic education certificate, 5 (45.5%) among those with SSCE, 4 (50.0%) among those with OND, 56 (71.8%) among those with HND, 130 (61.3%) among those with BSc, 61 (44.2%) among those with MSc, and 8 (88.9%) among those with PhD (p<0.001), and this was statistically significant.

The proportion of respondents with positive attitude differed across ministries/agencies, with 35 (34.3%) among those in the Ministry of Health, 37 (59.7%) in the Ministry of Budget, Planning and Economic Development, 29 (48.3%) in the Ministry of Education, 42 (71.2%) in the

Transport Authority, 31 (67.4%) in SUBEB, 25 (73.5%) in Edo State Hospitals Management Agency, 16 (50.0%) in the Ministry of Science and Technology, 27 (90.0%) in the Civil Service Commission, 16 (61.5%) in the Ministry of Public Security and Safety, and 7 (77.8%) in EDSOGPADEC ($p<0.001$), and this was statistically significant.

The proportion of respondents with positive attitude also differed across job roles, with 105 (57.7%) among those in management and administration, 106 (75.2%) in data and IT, 25 (50.0%) in healthcare, 12 (40.0%) in logistics, procurement and records, 10 (43.5%) in finance and accounting, 6 (50.0%) in education and training, 4 (50.0%) in technical and engineering, 4 (50.0%) in specialized roles, and 1 (16.7%) in human resources ($p<0.001$), and this was statistically significant.

As staff rank increased, the proportion of respondents with positive attitude increased from 54 (50.0%) among junior cadre to 143 (58.4%) among senior cadre and 68 (63.6%) among directorate cadre ($p=0.125$), although this was not statistically significant.

As years of work experience increased, the proportion of respondents with positive attitude remained similar, with 127 (58.5%) among those with less than 5 years of experience and 138 (56.8%) among those with 5 years or more ($p=0.777$), and this was not statistically significant.

As average work hours increased from 8 hours or less to more than 8 hours, the proportion of respondents with positive attitude increased from 215 (55.6%) to 50 (68.5%) ($p=0.052$), although this was not statistically significant.

As income increased, the proportion of respondents with positive attitude did not follow a consistent pattern, with 8 (72.7%) among those earning less than ₦70,000, 127 (61.4%) among those earning ₦70,000–₦199,999, 127 (56.4%) among those earning ₦200,000–₦299,999, 2

(18.2%) among those earning ₦300,000–₦399,999, and 1 (16.7%) among those earning ₦400,000 or more (p=0.009), and this was statistically significant.

As socioeconomic class decreased from class 1 to class 3, the proportion of respondents with positive attitude increased from 130 (50.8%) in class 1 to 132 (67.0%) in class 2, before declining to 3 (42.9%) in class 3. This association was statistically significant (p = 0.002).

Table 10: Predictors of positive attitude towards mental health and mental health care

Variable	B	AOR	95% CI (Lower)	95% CI (Upper)	p-value
Age(years)	-0.013	0.987	0.950	1.026	0.517
Sex					
Male	0.371	1.450	0.882	2.384	0.143
Female					
Ethnicity					
Edo (Ref)		1			
Non-Edo	-0.486	0.615	0.364	1.041	0.071
Religion					
Christianity		1			
Islam	-0.013	0.987	0.366	2.658	0.979
Marital status					
Ever married		1			
Never married	-0.040	0.961	0.499	1.849	0.905
Level of education					
Higher National Diploma	0.636	1.889	0.954	3.742	0.068
Master's degree	-0.485	0.615	0.349	1.087	0.094
National Diploma	-0.094	0.910	0.183	4.520	0.908
PhD	1.537	4.649	0.539	40.092	0.162
Primary education	-0.786	0.456	0.026	7.944	0.590
Senior Secondary Certificate Examination	-0.594	0.552	0.098	3.105	0.500
Bachelor		1			
Ministry					
Ministry of Budget, Planning and Economic Development		1			
Civil Service Commission	1.102	3.010	0.756	11.978	0.118
Ministry of Education	-0.761	0.467	0.200	1.090	0.078
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	0.467	1.595	0.253	10.075	0.619
Ministry of Health	-0.617	0.540	0.233	1.249	0.150
Edo State Hospitals Management Agency	0.188	1.207	0.418	3.490	0.728
Ministry of Public Security and Safety	0.111	1.117	0.393	3.177	0.835
Ministry of Science and Technology	-0.064	0.938	0.297	2.966	0.914
State Universal Basic Education Board	-0.124	0.884	0.351	2.226	0.793
Transport Authority	0.616	1.851	0.764	4.483	0.173
Current job role					
Data and Information Technology		1			
Education and Training	-1.052	0.349	0.119	1.024	0.055
Finance and Accounting	-1.739	0.176	0.064	0.479	**0.001***
Healthcare	0.289	1.334	0.114	13.878	0.815
Human Resources	-2.068	0.126	0.048		**<0.001***
Logistics, Procurement and Records	0.111	1.117	0.393	3.177	0.835
Management and Administration	-1.940	0.144	0.053	0.387	**<0.001***
Specialized and other roles	-0.958	0.383	0.043	3.428	0.391
Technical and Engineering	0.095	1.100	0.600	2.020	0.756
Average working hours					
≤8 hours		1			
>8 hours	0.652	1.919	1.005	3.662	**0.048***
Staff rank/ level	-0.481	0.618	0.312	1.223	0.167
Junior cadre		1			
Senior cadre					
Directorate senior cadre		1			
Years of working experience	-0.356	0.700	0.418	1.173	0.176
≤5					
≥5		1			
SES					
Low	-0.160	0.85	0.55	1.32	0.470
Middle	-0.083	0.92	0.63	1.35	0.680
High		1			

R^2 = 19.5%-26.5% ; AOR=Adjusted Odds Ratio

Ethnicity was not significantly associated with attitude, although non-Edo respondents were less likely to have good attitude compared to Edo respondents (AOR = 0.615; 95% CI: 0.364–1.041; p = 0.071).

Level of education was not significantly associated with attitude. Compared to those with a bachelor's degree, respondents with Higher National Diploma were more likely to have good attitude (AOR = 1.889; p = 0.068), while those with a Master's degree (AOR = 0.615; p = 0.094), National Diploma (AOR = 0.910; p = 0.908), PhD (AOR = 4.649; p = 0.162), primary education (AOR = 0.456; p = 0.590), and Senior Secondary Certificate Examination (AOR = 0.552; p = 0.500) were less likely to have good attitude, though none of these associations were statistically significant.

With respect to ministry, none of the ministries were significantly associated with attitude. However, compared to respondents in the Ministry of Budget, Planning and Economic Development, those in the Civil Service Commission were more likely to have good attitude (AOR = 3.010; p = 0.118), while those in the Ministry of Education (AOR = 0.467; p = 0.078), Ministry of Health (AOR = 0.540; p = 0.150), Ministry of Science and Technology (AOR = 0.938; p = 0.914), State Universal Basic Education Board (AOR = 0.884; p = 0.793), and Transport Authority (AOR = 1.851; p = 0.173) showed no significant differences.

Regarding job role, compared to respondents in Data and Information Technology, those in education and training were less likely to have good attitude (AOR = 0.349; p = 0.055), finance and accounting (AOR = 0.176; p = 0.001), human resources (AOR = 0.126; p < 0.001), logistics, procurement and records (AOR = 1.117; p = 0.835), management and administration (AOR = 0.144; p < 0.001), specialized and other roles (AOR = 0.383; p = 0.391), and technical and

engineering (p = 0.999). Only finance and accounting, human resources, and management and administration showed statistically significant associations.

Respondents who worked more than 8 hours per day were more likely to have good attitude compared to those who worked 8 hours or less (AOR = 1.919; 95% CI: 1.005–3.662; p = 0.048).

SECTION D

MENTAL HEALTH STASTUS OF PUBLIC SERVANTS IN EDO STATE

Table 11: Depression, anxiety and stress scale among respondents (n=460)

Variable	Never n (%)	Sometimes n (%)	Frequently n (%)	Always n (%)
Found it hard to experience positive feelings	310 (67.4)	106 (23.0)	25 (5.4)	19 (4.1)
Felt I had nothing to look forward to	311 (67.6)	107 (23.3)	40 (8.7)	2 (0.4)
Felt down-hearted and depressed	278 (60.4)	146 (31.7)	28 (6.1)	8 (1.7)
Felt that life was meaningless	319 (69.3)	99 (21.5)	40 (8.7)	2 (0.4)
Unable to become enthusiastic about anything	314 (68.3)	86 (18.7)	47 (10.2)	13 (2.8)
Felt I was not worth much as a person	324 (70.4)	87 (18.9)	44 (9.6)	5 (1.1)
Could not seem to get any enjoyment out of the things I did	299 (65.0)	99 (21.5)	53 (11.5)	9 (2.0)
Felt scared without any good reason	325 (70.7)	112 (24.3)	15 (3.3)	8 (1.7)
Experienced trembling (e.g. in the hands)	308 (67.0)	108 (23.5)	38 (8.3)	6 (1.3)
Felt close to panic	310 (67.4)	121 (26.3)	17 (3.7)	12 (2.6)
Worried about situations in which I might panic or make a fool of myself	285 (62.0)	133 (28.9)	31 (6.7)	11 (2.4)
Felt I was about to lose control	331 (72.0)	85 (18.5)	41 (8.9)	3 (0.7)
Aware of dryness of my mouth	317 (68.9)	106 (23.0)	31 (6.7)	6 (1.3)
Experienced difficulty breathing (e.g. excessive breathing, breathlessness)	297 (64.6)	126 (27.4)	23 (5.0)	14 (3.0)
Found it difficult to relax	293 (63.7)	107 (23.3)	52 (11.3)	8 (1.7)
Tended to over-react to situations	260 (56.5)	129 (28.0)	69 (15.0)	2 (0.4)
Felt that I was using a lot of nervous energy	265 (57.6)	150 (32.6)	41 (8.9)	4 (0.9)
Found myself getting agitated	239 (52.0)	161 (35.0)	37 (8.0)	23 (5.0)
Felt intolerant of anything that kept me from getting on with what I was doing	238 (51.7)	138 (30.0)	71 (15.4)	13 (2.8)
Felt that I was rather touchy	289 (62.8)	111 (24.1)	32 (7.0)	28 (6.1)
Felt stressed or under pressure	246 (53.5)	158 (34.3)	45 (9.8)	11 (2.4)

Cronbach's Alpha=0.941

For prevalence of depression, 310 (67.4%) reported never experiencing difficulty experiencing positive feelings, 311 (67.6%) reported never lacking anticipation, 278 (60.4%) reported never feeling depressed, 319 (69.3%) reported never feeling life was meaningless, 314 (68.3%) reported never lacking enthusiasm, 324 (70.4%) reported never experiencing low self-worth, and 299 (65.0%) reported never lacking enjoyment. The remaining respondents reported "sometimes," "frequently," and "always" across each of these variables in varying proportions.

For anxiety, 325 (70.7%) reported never feeling scared without reason, 308 (67.0%) reported never experiencing trembling, 310 (67.4%) reported never experiencing panic, 285 (62.0%) reported never worrying excessively, 331 (72.0%) reported never feeling loss of control, 317 (68.9%) reported never experiencing dry mouth, and 297 (64.6%) reported never having difficulty breathing, while other respondents reported varying frequencies of these symptoms.

In regards to stress, 293 (63.7%) reported never experiencing difficulty relaxing, 260 (56.5%) reported never overreacting to situations, 265 (57.6%) reported never experiencing nervous energy, 239 (52.0%) reported never feeling agitated, 238 (51.7%) reported never being intolerant, 289 (62.8%) reported never being easily touchy, and 246 (53.5%) reported never feeling stressed, while others reported varying degrees of these symptoms.

Table 12: Components of mental health status (n=460)

Variable	Frequency	Percent
Depression		
Normal	325	70.7
Mild	58	12.6
Moderate	49	10.7
Severe	6	1.3
Extremely severe	22	4.8
Anxiety		
Normal	307	66.7
Mild	48	10.4
Moderate	70	15.2
Severe	5	1.1
Extremely severe	30	6.5
Stress		
Normal	359	78.0
Mild	58	12.6
Moderate	19	4.1
Severe	24	5.2

Using the Depression, Anxiety, and Stress Scale (DASS-21) scoring sheet, the various proportions of respondents with depression were; 58 (12.6%) mild depression, 49 (10.7%) moderate depression, 6 (1.3%) severe depression, and 22 (4.8%) extremely severe depression; while 325 (70.7%) did not have depression.

The prevalence of anxiety among respondents was 48 (10.4%) for mild anxiety, predominantly 70 (15.2%) for moderate, least 5 (1.1%) for severe, and 30 (6.5%) for extremely severe anxiety. About two-thirds, 307 (66.7%) of respondents were normal.

A large proportion of public servants, 359 (78.0%) did not experience stress, to the extent that it affected their mental health. However, 58 (12.6%) were mildly affected by stress, 19 (4.1%) were moderately affected, and 24 (5.2%) were severely affected. None were extremely severely affected.

Table 13: Grading of components of mental health status (n=460)

Variable	Frequency	Percent
Depression		
Normal	383	83.3
Moderate	49	10.7
Severe	6	1.3
Extremely severe	22	4.8
Anxiety		
Normal	355	77.2
Moderate	70	15.2
Severe	5	1.1
Extremely severe	30	6.5
Stress		
Normal	417	90.7
Moderate	19	4.1
Severe	24	5.2

When graded, 383 (83.3%) of public servants were normal, while 49 (10.7%) had moderate depression, 6 (1.3%) severe depression, and 22 (4.8%) extremely severe depression.

A high proportion of respondents, 70 (15.2%) had moderate anxiety, 5 (1.1%) severe anxiety, and 30 (6.5%) extremely severe anxiety. About three-fourths, 355 (77.2%) of respondents were normal.

Almost all the respondents, 417 (90.7%), were considered normal in regards to stress; while 19 (4.1%) were moderately affected, and 24 (5.2%) severely affected.

Table 14: Prevalence of depression, anxiety and stress among respondents (n=460)

Variable	Frequency	Percent
Depression		
Absent	383	83.3
Present	77	16.7
Anxiety		
Absent	355	77.2
Present	105	22.8
Stress		
Absent	417	90.7
Present	43	9.3

Most respondents, 383 (83.3%) did not have depression while 77 (16.7%) had depression. Similarly, a higher proportion 355 (77.2%) did not have anxiety while 105 (22.8%) had.

Finally, 417 (90.7%) of the respondents did not have stress while 43 (9.3%) experienced stress.

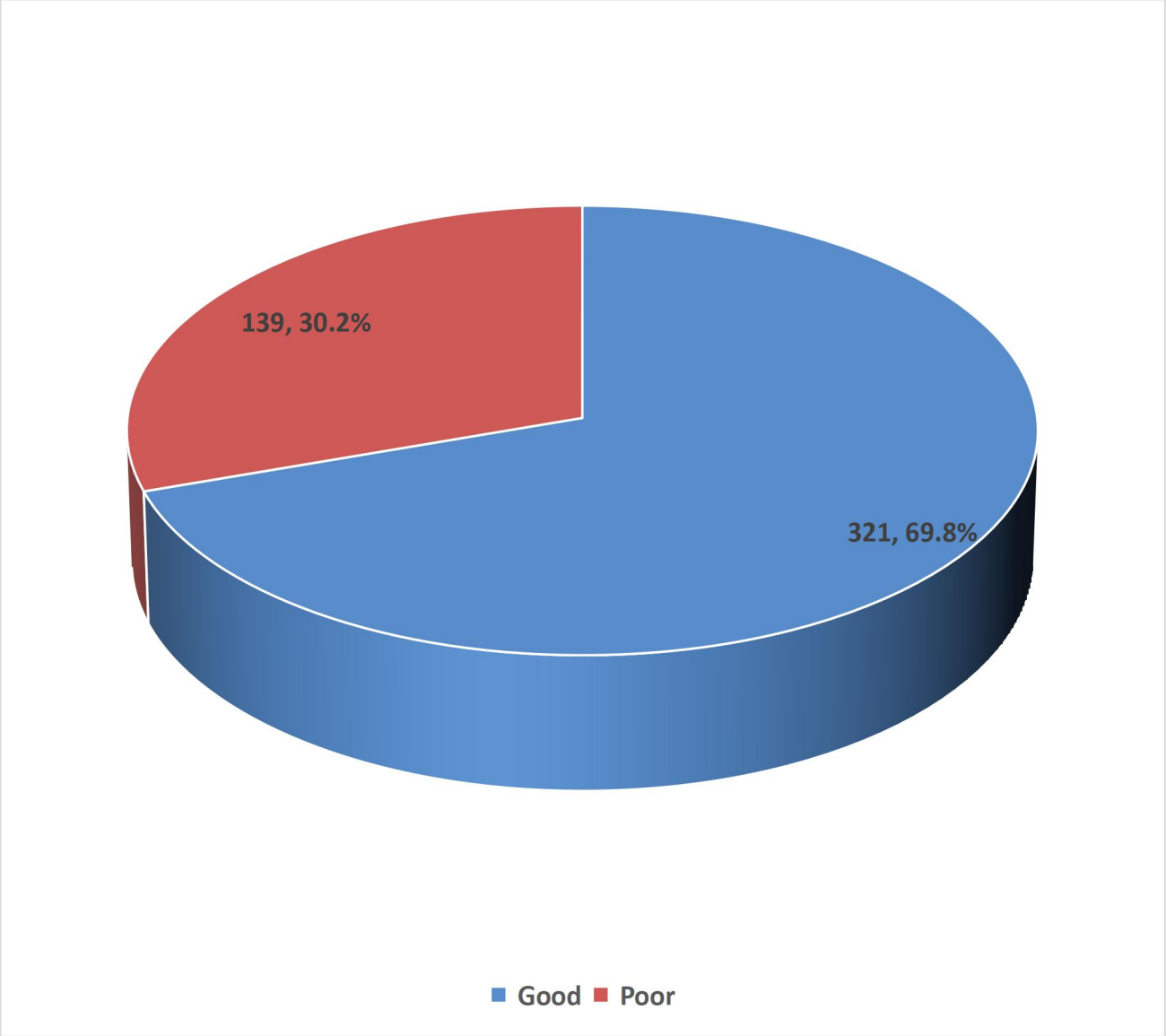

Figure 3: Overall mental health status among public servants

Among the total 460 respondents, 321 (69.8%) had good mental health status while 139 (30.2%) had poor mental health status.

Table 15: Factors associated with depression among respondents (n=460)

Variable	Depression		Test statistics (χ^2)	p-value
	Present (n=77) n (%)	Absent(n=383) n (%)		
Age group (years)			5.157	0.076
20–34	48 (20.5)	186 (79.5)		
35–44	23 (13.6)	146 (86.4)		
≥45	6 (10.5)	51 (89.5)		
Sex			0.217	0.641
Female	41 (16.0)	215 (84.0)		
Male	36 (17.6)	168 (82.4)		
Ethnicity			3.873	**0.049**
Edo	53 (14.9)	303 (85.1)		
Non-Edo	24 (23.1)	80 (76.9)		
Religion			31.009	**<0.001***
Christianity	62 (14.3)	371 (85.7)		
Islam	15 (55.6)	12 (44.4)		
Marital status			7.198	**0.007***
Ever married	52 (14.3)	311 (85.7)		
Never married	25 (25.8)	72 (74.2)		
Level of education			15.810	**0.027***
Primary leaving certificate	0 (0.0)	2 (100.0)		
Basic education certificate	0 (0.0)	2 (100.0)		
SSCE	6 (54.5)	5 (45.5)		
National Diploma	0 (0.0)	8 (100.0)		
HND	13 (16.7)	65 (83.3)		
Bachelor's degree	37 (17.5)	175 (82.5)		
Master's degree	21 (15.2)	117 (84.8)		
PhD	0 (0.0)	9 (100.0)		
Ministry/Department/Agency			32.648	**<0.001***
Civil service commission	5 (16.7)	25 (83.3)		
Edo State Hospitals Management Agency	4 (11.8)	30 (88.2)		
EDSOGPADEC	0 (0.0)	9 (100.0)		
Ministry of Budget, Planning & Economic Devlopment	16 (25.8)	46 (74.2)		
Ministry of Education	8 (13.3)	52 (86.7)		
Ministry of Health	4 (3.9)	98 (96.1)		
Ministry of Science & Technology	10 (31.3)	22 (68.8)		
Ministry Public Security and Safety	10 (38.5)	16 (61.5)		
SUBEB	9 (19.6)	37 (80.4)		
Transport Authority	11 (18.6)	48 (81.4)		
Job role/position			59.819	**<0.001***
Data and IT	26 (18.4)	115 (81.6)		
Education and Training	1 (8.3)	11 (91.7)		
Finance and Accounting	2 (8.7)	21 (91.3)		
Healthcare	8 (16.0)	42 (84.0)		
Human resources	0 (0.0)	6 (100.0)		
Logistics, Procurement and Records	16 (53.3)	14 (46.7)		
Management and Administration	15 (8.2)	167 (91.8)		
Specialized roles	5 (62.5)	3 (37.5)		
Technical and Engineering	4 (50.0)	4 (50.0)		
Cadre/role/position			3.481	0.175
Directorate senior	12 (11.2)	95 (88.8)		
Junior	22 (20.4)	86 (79.6)		
Senior	43 (17.6)	202 (82.4)		
Years of work			10.057	**0.002**
<5 years	49 (22.6)	168 (77.4)		
≥5 years	28 (11.5)	215 (88.5)		
Working hours			0.006	0.940
≤8 hours	65 (16.8)	322 (83.2)		
>8 hours	12 (16.4)	61 (83.6)		
Monthly income (₦)			36.488	**<0.001**
<70,000	6 (54.5)	5 (45.5)		
70,000–199,999	40 (19.3)	167 (80.7)		
200,000–299,999	23 (10.2)	202 (89.8)		
300,000–399,999	7 (63.6)	4 (36.4)		
≥400,000	1 (16.7)	5 (83.3)		
Socioeconomic status			19.647	**<0.001**
Low	28 (10.9)	228 (89.1)		
Middle	45 (22.8)	152 (77.2)		
High	4 (57.1)	3 (42.9)		
Knowledge			3.031	0.093
Good	31(11.9)	230(88.1)		
Poor	31(17.8)	143(82.2)		
Attitude			8.241	**0.005**
Positive	33(12.5)	232(87.5)		
Negative	44(22.65)	151(77.4)		

*Fischer's Exact test; # Statistically significant

Depression was more common among younger respondents, with 48 (20.5%) of those aged 20–34 having depression compared to 23 (13.6%) among those aged 35–44 and 6 (10.5%) among those aged ≥45, showing a decrease in depression with increasing age; however, this was not statistically significant ($p = 0.076$).

Depression was slightly more prevalent among males, with 36 (17.6%) compared to 41 (16.0%) among females, although this difference was not statistically significant ($p = 0.641$).

A significantly higher proportion of non-Edo respondents had depression, 24 (23.1%), compared to 53 (14.9%) among Edo respondents ($p = 0.049$).

Religion showed a strong association with depression, as a markedly higher proportion of respondents practicing Islam had depression, 15 (55.6%), compared to 62 (14.3%) among Christians ($p < 0.001$).

Depression was significantly more common among respondents who had never been married, 25 (25.8%), compared to 52 (14.3%) among those who were ever married ($p = 0.007$).

Across levels of education, depression appeared higher among respondents with lower educational attainment. None of those with primary leaving certificate, basic education certificate, or PhD had depression (0.0%), while 6 (54.5%) of those with SSCE had depression. Among those with higher education, 13 (16.7%) of respondents with HND, 37 (17.5%) with bachelor's degree, and 21 (15.2%) with master's degree had depression, indicating an overall reduction in depression with increasing level of education ($p = 0.027$).

Depression varied significantly across ministries and departments ($p < 0.001$). Higher proportions were observed among respondents in the Ministry of Budget, Planning and

Economic Development, 16 (25.8%), Ministry of Public Security and Safety, 10 (38.5%), and Ministry of Science and Technology, 10 (31.3%), while lower proportions were seen in the Ministry of Health, 4 (3.9%), Edo State Hospitals Management Agency, 4 (11.8%), and EDSOGPADEC, where none had depression (0.0%).

There was a significant association between job role and depression ($p < 0.001$). The highest proportion of depression was observed among respondents in specialized roles, 5 (62.5%), and those in logistics, procurement and records, 16 (53.3%), while no cases were recorded among those in human resources (0.0%). Lower proportions were observed among those in management and administration, 15 (8.2%), and data and IT, 26 (18.4%).

Depression was not significantly associated with cadre ($p = 0.175$), although it was slightly higher among junior staff, 22 (20.4%), compared to senior staff, 43 (17.6%), and directorate staff, 12 (11.2%).

Years of work was significantly associated with depression ($p = 0.002$), with higher prevalence among respondents with less than five years of experience, 49 (22.6%), compared to those with five or more years, 28 (11.5%), indicating a decrease in depression with increasing years of work.

Working hours per day was not significantly associated with depression, with similar proportions among those working ≤8 hours, 65 (16.8%), and those working >8 hours, 12 (16.4%) ($p = 0.940$).

Monthly income showed a significant association with depression ($p < 0.001$). Depression was highest among respondents earning ₦300,000–₦399,999, 7 (63.6%), and lowest among those earning ₦200,000–₦299,999, 23 (10.2%). Respondents earning <₦70,000 had 6 (54.5%) prevalence, while those earning ₦70,000–₦199,999 and ≥₦400,000 had 40 (19.3%) and 1 (16.7%) respectively, indicating no consistent linear trend across income categories.

As socioeconomic class decreased from class 1 to class 3, the proportion of respondents with depression increased from 28 (10.9%) in class 1 to 43 (22.3%) in class 2 and 4 (57.1%) in class 3. This association was statistically significant ($p < 0.001$).

Table 16: Factors associated with anxiety among respondents (n=460)

Variable	Anxiety		Test statistics (χ^2)	p-value
	Present (n=105) n (%)	Absent (n=355) n (%)		
Age group (years)			3.819	0.148
20–34	46 (19.7)	188 (80.3)		
35–44	47 (27.8)	122 (72.2)		
≥45	12 (21.1)	45 (78.9)		
Sex			.122	0.726
Female	60 (23.4)	196 (76.6)		
Male	45 (22.1)	159 (77.9)		
Ethnicity			.112	0.738
Edo	80 (22.5)	276 (77.5)		
Non-Edo	25 (24.0)	79 (76.0)		
Religion			2.235	0.135
Christianity	102 (23.6)	331 (76.4)		
Islam	3 (11.1)	24 (88.9)		
Marital status			1.751	0.186
Ever married	78 (21.5)	285 (78.5)		
Never married	27 (27.8)	70 (72.2)		
Level of education			20.513	**0.005**
Primary leaving certificate	0 (0.0)	2 (100.0)		
Basic education certificate	0 (0.0)	2 (100.0)		
SSCE	8 (72.7)	3 (27.3)		
National Diploma	1 (12.5)	7 (87.5)		
HND	15 (19.2)	63 (80.8)		
Bachelor's degree	43 (20.3)	169 (79.7)		
Master's degree	37 (26.8)	101 (73.2)		
PhD	1 (11.1)	8 (88.9)		
Ministry/Department/Agency			33.025	**<0.001**
Civil service commission	2 (6.7)	28 (93.3)		
Edo State Hospitals Management Agency	6 (17.6)	28 (82.4)		
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	1 (11.1)	8 (88.9)		
Ministry of Budget, Planning and Economic Development	14 (22.6)	48 (77.4)		
Ministry of Education	24 (40.0)	36 (60.0)		
Ministry of Health	12 (11.8)	90 (88.2)		
Ministry of Science and Technology	13 (40.6)	19 (59.4)		
Ministry of Public Security and Safety	10 (38.5)	16 (61.5)		
State Universal Basic Education Board	12 (26.1)	34 (73.9)		
Transport Authority	11 (18.6)	48 (81.4)		
Job role/position			44.593	**<0.001**
Data and Information Technology	17 (12.1)	124 (87.9)		
Education and Training	6 (50.0)	6 (50.0)		
Finance and Accounting	5 (21.7)	18 (78.3)		
Healthcare	15 (30.0)	35 (70.0)		
Human resources	0 (0.0)	6 (100.0)		
Logistics, Procurement and Records	9 (30.0)	21 (70.0)		
Management and Administration	41 (22.5)	141 (77.5)		
Specialized and other roles	7 (87.5)	1 (12.5)		
Technical and Engineering	5 (62.5)	3 (37.5)		
Cadre			.963	0.618
Junior	28 (25.9)	80 (74.1)		
Senior	52 (21.2)	193 (78.8)		
Directorate	25 (23.4)	82 (76.6)		
Years of work			.011	0.917
<5 years	50 (23.0)	167 (77.0)		
≥5 years	55 (22.6)	188 (77.4)		
Working hours			.165	0.684
≤8 hours	87 (22.5)	300 (77.5)		
>8 hours	18 (24.7)	55 (75.3)		
Monthly income (₦)			7.602	0.107
<70,000	6 (54.5)	5 (45.5)		
70,000–199,999	49 (23.7)	158 (76.3)		
200,000–299,999	46 (20.4)	179 (79.6)		
300,000–399,999	2 (18.2)	9 (81.8)		
≥400,000	2 (33.3)	4 (66.7)		
Socioeconomic status			20.138	**<0.001**
Low	65 (25.4)	191 (74.6)		
Middle	34 (17.3)	163 (82.7)		
High	6 (85.7)	1 (14.3)		
Knowledge			0.763	0.399
Good	57(21.8)	204(78.2)		
Poor	32(18.4)	142(81.6}		
Attitude			46.975	**<0.001**
Positive	30(11.3)	235(88.7)		
Negative	75{38.5)	120(61.5)		

Anxiety was highest among respondents aged 35–44 years, 47 (27.8%), compared to 46 (19.7%) among those aged 20–34 and 12 (21.1%) among those aged ≥45, showing no consistent increase or decrease with age; however, this was not statistically significant ($p = 0.148$).

Anxiety prevalence was similar between females, 60 (23.4%), and males, 45 (22.1%), with no statistically significant association ($p = 0.726$).

There was no significant difference in anxiety between ethnic groups, with 80 (22.5%) of Edo respondents and 25 (24.0%) of non-Edo respondents having anxiety ($p = 0.738$).

Although a higher proportion of Christians had anxiety, 102 (23.6%), compared to 3 (11.1%) among Muslims, this difference was not statistically significant ($p = 0.135$).

Anxiety was more common among respondents who had never been married, 27 (27.8%), compared to 78 (21.5%) among those ever married, but this was not statistically significant ($p = 0.186$).

Level of education was significantly associated with anxiety ($p = 0.005$). Anxiety was highest among respondents with SSCE, 8 (72.7%), while none of those with primary leaving certificate or basic education certificate had anxiety (0.0%). Among those with higher education, anxiety was present in 1 (12.5%) of respondents with National Diploma, 15 (19.2%) with HND, 43 (20.3%) with bachelor's degree, 37 (26.8%) with master's degree, and 1 (11.1%) with PhD, indicating variability without a clear linear trend.

There was a significant association between ministry/department and anxiety ($p < 0.001$). Higher proportions were observed among respondents in the Ministry of Education, 24 (40.0%), Ministry of Science and Technology, 13 (40.6%), and Ministry of Public Security and Safety, 10

(38.5%), while lower proportions were seen in the Civil Service Commission, 2 (6.7%), Ministry of Health, 12 (11.8%), and Edo State Oil and Gas Producing Areas Development Commission, 1 (11.1%).

Job role was significantly associated with anxiety ($p < 0.001$). The highest proportions were observed among respondents in specialized roles, 7 (87.5%), and technical and engineering, 5 (62.5%), followed by education and training, 6 (50.0%). No cases were reported among those in human resources (0.0%), while lower proportions were observed among those in data and information technology, 17 (12.1%), and management and administration, 41 (22.5%).

There was no significant association between cadre and anxiety ($p = 0.618$), although anxiety was slightly higher among junior staff, 28 (25.9%), compared to directorate staff, 25 (23.4%), and senior staff, 52 (21.2%).

Years of work showed similar proportions of anxiety among respondents with less than five years, 50 (23.0%), and those with five or more years, 55 (22.6%), indicating no meaningful difference ($p = 0.917$).

Working hours per day was not significantly associated with anxiety, with 87 (22.5%) of those working ≤8 hours and 18 (24.7%) of those working >8 hours having anxiety ($p = 0.684$).

Monthly income did not show a statistically significant association with anxiety ($p = 0.107$). However, anxiety appeared highest among respondents earning <₦70,000, 6 (54.5%), followed by those earning ≥₦400,000, 2 (33.3%), while lower proportions were observed among those earning ₦200,000–₦299,999, 46 (20.4%), ₦70,000–₦199,999, 49 (23.7%), and ₦300,000–₦399,999, 2 (18.2%), indicating no consistent trend across income categories.

As socioeconomic class decreased from class 1 to class 3, the proportion of respondents with anxiety decreased from 65 (25.4%) in class 1 to 34 (17.3%) in class 2 and then increased markedly to 6 (85.7%) in class 3. This association was statistically significant ($p < 0.001$).

Table 17: Factors associated with stress among respondents (n=460)

Variable	Stress		Test statistics (χ^2)	p-value
	Present (n=43) n (%)	Absent (n=417) n (%)		
Age group (years)			0.162	0.922
20–34	21 (9.0)	213 (91.0)		
35–44	17 (10.1)	152 (89.9)		
≥45	5 (8.8)	52 (91.2)		
Sex			0.119	0.730
Female	25 (9.8)	231 (90.2)		
Male	18 (8.8)	186 (91.2)		
Ethnicity			1.086	0.297
Edo	36 (10.1)	320 (89.9)		
Non-Edo	7 (6.7)	97 (93.3)		
Religion			2.958	0.085
Christianity	43 (9.9)	390 (90.1)		
Islam	0 (0.0)	27 (100.0)		
Marital status			9.701	**0.002**
Ever married	26 (7.2)	337 (92.8)		
Never married	17 (17.5)	80 (82.5)		
Level of education			23.913	**0.001**
Primary leaving certificate	0 (0.0)	2 (100.0)		
Basic education certificate	0 (0.0)	2 (100.0)		
SSCE	5 (45.5)	6 (54.5)		
National Diploma	0 (0.0)	8 (100.0)		
HND	7 (9.0)	71 (91.0)		
Bachelor's degree	13 (6.1)	199 (93.9)		
Master's degree	18 (13.0)	120 (87.0)		
PhD	0 (0.0)	9 (100.0)		
Ministry/Department/Agency			34.704	**<0.001**
Civil service commission	0 (0.0)	30 (100.0)		
Edo State Hospitals Management Agency	1 (2.9)	33 (97.1)		
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	1 (11.1)	8 (88.9)		
Ministry of Budget, Planning and Economic Development	8 (12.9)	54 (87.1)		
Ministry of Education	7 (11.7)	53 (88.3)		
Ministry of Health	3 (2.9)	99 (97.1)		
Ministry of Science and Technology	9 (28.1)	23 (71.9)		
Ministry of Public Security and Safety	7 (26.9)	19 (73.1)		
State Universal Basic Education Board	3 (6.5)	43 (93.5)		
Transport Authority	4 (6.8)	55 (93.2)		
Job role/position			62.478	**<0.001**
Data and Information Technology	8 (5.7)	133 (94.3)		
Education and Training	2 (16.7)	10 (83.3)		
Finance and Accounting	2 (8.7)	21 (91.3)		
Healthcare	6 (12.0)	44 (88.0)		
Human resources	0 (0.0)	6 (100.0)		
Logistics, Procurement and Records	5 (16.7)	25 (83.3)		
Management and Administration	10 (5.5)	172 (94.5)		
Specialized and other roles	5 (62.5)	3 (37.5)		
Technical and Engineering	5 (62.5)	3 (37.5)		
Cadre			9.992	**0.007**
Junior	18 (16.7)	90 (83.3)		
Senior	20 (8.2)	225 (91.8)		
Directorate	5 (4.7)	102 (95.3)		
Years of work			0.759	0.384
<5 years	23 (10.6)	194 (89.4)		
≥5 years	20 (8.2)	223 (91.8)		
Working hours			1.532	0.216
>8 hours	39 (10.1)	348 (89.9)		
≤ 8 hours	4 (5.5)	69 (94.5)		
Monthly income (₦)			36.630	**<0.001**
<70,000	6 (54.5)	5 (45.5)		
70,000–199,999	23 (11.1)	184 (88.9)		
200,000–299,999	11 (4.9)	214 (95.1)		
300,000–399,999	1 (9.1)	10 (90.9)		
≥400,000	2 (33.3)	4 (66.7)		
Socioeconomic status			19.259	**<0.001**
Low	23 (9.0)	233 (91.0)		
Middle	16 (8.1)	181 (91.9)		
High	4 (57.1)	3 (42.9)		
Knowledge			0.637	0.540
Good	14(5.4)	14(8.0)		
Poor	247(94.6)	160(92.0)		
Attitude			12.1	**<0.001**
Positive	234(88.7)	75(38.5)		
Negative	120(61.5)	120(61.5)		

Stress prevalence was similar across age groups, with 21 (9.0%) among respondents aged 20–34, 17 (10.1%) among those aged 35–44, and 5 (8.8%) among those aged ≥45, showing no consistent increase or decrease with age; this was not statistically significant ($p = 0.922$).

Stress was slightly higher among females, 25 (9.8%), compared to males, 18 (8.8%), although this difference was not statistically significant ($p = 0.730$).

A higher proportion of Edo respondents had stress, 36 (10.1%), compared to 7 (6.7%) among non-Edo respondents, but this was not statistically significant ($p = 0.297$).

Although stress was present among Christians, 43 (9.9%), and absent among Muslims (0.0%), this difference did not reach statistical significance ($p = 0.085$).

Marital status was significantly associated with stress ($p = 0.002$), with a higher proportion among respondents who had never been married, 17 (17.5%), compared to 26 (7.2%) among those ever married.

Level of education was significantly associated with stress ($p = 0.001$). Stress was highest among respondents with SSCE, 5 (45.5%), while none of those with primary leaving certificate, basic education certificate, National Diploma, or PhD had stress (0.0%). Among those with higher education, stress was present in 7 (9.0%) of respondents with HND, 13 (6.1%) with bachelor's degree, and 18 (13.0%) with master's degree, indicating no consistent linear trend across educational levels.

There was a significant association between ministry/department and stress ($p < 0.001$). Higher proportions were observed among respondents in the Ministry of Science and Technology, 9 (28.1%), and Ministry of Public Security and Safety, 7 (26.9%), while no cases were reported

among those in the Civil Service Commission (0.0%). Lower proportions were also observed in the Ministry of Health, 3 (2.9%), Edo State Hospitals Management Agency, 1 (2.9%), and State Universal Basic Education Board, 3 (6.5%).

Job role was significantly associated with stress ($p < 0.001$). The highest proportions were observed among respondents in specialized roles, 5 (62.5%), and technical and engineering, 5 (62.5%), followed by education and training, 2 (16.7%) and logistics, procurement and records, 5 (16.7%). No cases were recorded among those in human resources (0.0%), while lower proportions were observed among those in data and information technology, 8 (5.7%), and management and administration, 10 (5.5%).

Cadre was significantly associated with stress ($p = 0.007$), with higher prevalence among junior staff, 18 (16.7%), compared to senior staff, 20 (8.2%), and directorate staff, 5 (4.7%), indicating a decrease in stress with increasing cadre level.

Years of work was not significantly associated with stress, although a higher proportion was observed among respondents with less than five years of experience, 23 (10.6%), compared to 20 (8.2%) among those with five or more years, suggesting a slight decrease in stress with increasing years of work ($p = 0.384$).

Working hours per day showed no significant association with stress, with 39 (10.1%) among those working ≤8 hours and 4 (5.5%) among those working >8 hours ($p = 0.216$).

Monthly income was significantly associated with stress ($p < 0.001$). Stress was highest among respondents earning <₦70,000, 6 (54.5%), followed by those earning ≥₦400,000, 2 (33.3%). Lower proportions were observed among those earning ₦70,000–₦199,999, 23 (11.1%),

₦200,000–₦299,999, 11 (4.9%), and ₦300,000–₦399,999, 1 (9.1%), indicating no consistent linear trend across income categories.

As socioeconomic class decreased from class 1 to class 3, the proportion of respondents with stress changed from 23 (9.0%) in class 1 to 16 (8.0%) in class 2 and then increased markedly to 4 (57.1%) in class 3. This association was statistically significant ($p < 0.001$).

Table 18: Factors associated with mental health status among respondents (n=460)

Variable	Mental health status		Test statistics (χ^2)	p-value
	Poor (n=139) n (%)	Good (n=321) n (%)		
Age group (years)			0.518	0.772
20–34	73 (31.2)	161 (68.8)		
35–44	51 (30.2)	118 (69.8)		
≥45	15 (26.3)	42 (73.7)		
Sex			1.330	0.249
Female	83 (32.4)	173 (67.6)		
Male	56 (27.5)	148 (72.5)		
Ethnicity			3.380	0.066
Edo	100 (28.1)	256 (71.9)		
Non-Edo	39 (37.5)	65 (62.5)		
Religion			14.586	**<0.001**
Christianity	122 (28.2)	311 (71.8)		
Islam	17 (63.0)	10 (37.0)		
Marital status			0.843	0.358
Ever married	106 (29.2)	257 (70.8)		
Never married	33 (34.0)	64 (66.0)		
Level of education			15.429	**0.031**
Primary leaving certificate	0 (0.0)	2 (100.0)		
Basic education certificate	0 (0.0)	2 (100.0)		
SSCE	8 (72.7)	3 (27.3)		
National Diploma	1 (12.5)	7 (87.5)		
HND	19 (24.4)	59 (75.6)		
Bachelor's degree	67 (31.6)	145 (68.4)		
Master's degree	43 (31.2)	95 (68.8)		
PhD	1 (11.1)	8 (88.9)		
Ministry/Department/Agency			27.958	**0.001**
Civil service commission	7 (23.3)	23 (76.7)		
Edo State Hospitals Management Agency	9 (26.5)	25 (73.5)		
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	2 (22.2)	7 (77.8)		
Ministry of Budget, Planning and Economic Development	25 (40.3)	37 (59.7)		
Ministry of Education	25 (41.7)	35 (58.3)		
Ministry of Health	13 (12.7)	89 (87.3)		
Ministry of Science and Technology	13 (40.6)	19 (59.4)		
Ministry of Public Security and Safety	12 (46.2)	14 (53.8)		
State Universal Basic Education Board	16 (34.8)	30 (65.2)		
Transport Authority	17 (28.8)	42 (71.2)		
Job role/position			45.582	**<0.001**
Data and Information Technology	34 (24.1)	107 (75.9)		
Education and Training	6 (50.0)	6 (50.0)		
Finance and Accounting	7 (30.4)	16 (69.6)		
Healthcare	15 (30.0)	35 (70.0)		
Human resources	0 (0.0)	6 (100.0)		
Logistics, Procurement and Records	19 (63.3)	11 (36.7)		
Management and Administration	45 (24.7)	137 (75.3)		
Specialized and other roles	7 (87.5)	1 (12.5)		
Technical and Engineering	6 (75.0)	2 (25.0)		
Cadre			0.037	0.981
Junior	32 (29.6)	76 (70.4)		
Senior	74 (30.2)	171 (69.8)		
Directorate	33 (30.8)	74 (69.2)		
Years of work			5.403	**0.020**
<5 years	77 (35.5)	140 (64.5)		
≥5 years	62 (25.5)	181 (74.5)		
Working hours			0.291	0.590
≤8 hours	115 (29.7)	272 (70.3)		
>8 hours	24 (32.9)	49 (67.1)		
Monthly income (₦)			12.845	**0.012**
<70,000	6 (54.5)	5 (45.5)		
70,000–199,999	66 (31.9)	141 (68.1)		
200,000–299,999	57 (25.3)	168 (74.7)		
300,000–399,999	7 (63.6)	4 (36.4)		
≥400,000	3 (50.0)	3 (50.0)		
Socioeconomic status			10.808	**0.004**
Low	72 (28.1)	184 (71.9)		
Middle	61 (31.0)	136 (69.0)		
High	6 (85.7)	1 (14.3)		

The proportion of respondents with poor mental health decreased slightly with increasing age, with 73 (31.2%) among those aged 20–34, 51 (30.2%) among those aged 35–44, and 15 (26.3%) among those aged ≥45, although this was not statistically significant ($p = 0.772$).

Poor mental health was more common among females, 83 (32.4%), compared to males, 56 (27.5%), but this difference was not statistically significant ($p = 0.249$).

A higher proportion of non-Edo respondents had poor mental health, 39 (37.5%), compared to 100 (28.1%) among Edo respondents, although this did not reach statistical significance ($p = 0.066$).

Religion was significantly associated with mental health status ($p < 0.001$), with a markedly higher proportion of poor mental health among Muslims, 17 (63.0%), compared to 122 (28.2%) among Christians.

Marital status was not significantly associated with mental health status, although poor mental health was more common among those never married, 33 (34.0%), compared to 106 (29.2%) among those ever married ($p = 0.358$).

Level of education showed a statistically significant association with mental health status ($p = 0.031$). Poor mental health was highest among respondents with SSCE, 8 (72.7%), while none of those with primary leaving certificate or basic education certificate had poor mental health (0.0%). Among higher education categories, poor mental health was reported among 1 (12.5%) of those with National Diploma, 19 (24.4%) with HND, 67 (31.6%) with bachelor's degree, 43 (31.2%) with master's degree, and 1 (11.1%) with PhD, indicating no consistent linear trend across educational levels.

Ministry/department was significantly associated with mental health status (p = 0.001). Higher proportions of poor mental health were observed among respondents in the Ministry of Public Security and Safety, 12 (46.2%), Ministry of Education, 25 (41.7%), Ministry of Science and Technology, 13 (40.6%), and Ministry of Budget, Planning and Economic Development, 25 (40.3%). Lower proportions were observed among those in the Ministry of Health, 13 (12.7%), Civil Service Commission, 7 (23.3%), and Edo State Oil and Gas Producing Areas Development Commission, 2 (22.2%).

Job role was significantly associated with mental health status (p < 0.001). The highest proportions of poor mental health were observed among respondents in specialized roles, 7 (87.5%), and technical and engineering, 6 (75.0%), followed by logistics, procurement and records, 19 (63.3%), and education and training, 6 (50.0%). No cases were reported among those in human resources (0.0%), while lower proportions were observed among those in data and information technology, 34 (24.1%), and management and administration, 45 (24.7%).

Cadre was not significantly associated with mental health status, with similar proportions observed among junior staff, 32 (29.6%), senior staff, 74 (30.2%), and directorate staff, 33 (30.8%) (p = 0.981).

Years of work showed a statistically significant association with mental health status (p = 0.020), with a higher proportion of poor mental health among respondents with less than five years of experience, 77 (35.5%), compared to 62 (25.5%) among those with five or more years, indicating a decrease in poor mental health with increasing years of work.

Working hours per day were not significantly associated with mental health status, although poor mental health was slightly higher among those working more than 8 hours, 24 (32.9%), compared to 115 (29.7%) among those working 8 hours or less (p = 0.590).

Monthly income was significantly associated with mental health status (p = 0.012). Poor mental health was highest among respondents earning ₦300,000–₦399,999, 7 (63.6%), followed by those earning less than ₦70,000, 6 (54.5%), and those earning ≥₦400,000, 3 (50.0%). Lower proportions were observed among those earning ₦70,000–₦199,999, 66 (31.9%), and ₦200,000–₦299,999, 57 (25.3%), indicating no consistent linear trend across income categories.

As socioeconomic class decreased from class 1 to class 3, the proportion of respondents with poor mental status increased from 72 (28.1%) in class 1 to 61 (31.0%) in class 2 and markedly to 6 (85.7%) in class 3. This association was statistically significant (p = 0.004).

Table 19: Predictors of presence of depression among respondents

Variable	B	AOR	95% CI (Lower)	95% CI (Upper)	p-value
Age (years)	-0.017	0.984	0.916	1.056	0.650
Sex					
Female (Ref)		1			
Male	0.639	1.895	0.795	4.517	0.149
Ethnicity					
Edo (Ref)		1			
Non-Edo	-0.027	0.973	0.379	2.498	0.955
Religion					
Christianity (Ref)		1			
Islam	3.624	37.475	9.436	148.829	**<0.001**
Marital status					
Ever married (Ref)		1			
Never married	0.515	1.673	0.544	5.145	0.369
Ministry/Department/Agency					
Ministry of Budget, Planning and Economic Development (Ref)		1			
Civil Service Commission	-1.365	0.255	0.046	1.407	0.117
Ministry of Education	0.110	1.116	0.277	4.496	0.877
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	-20.630	0.000	0.000	.	0.999
Ministry of Health	-3.726	0.024	0.003	0.216	**0.001**
Edo State Hospitals Management Agency	-2.365	0.094	0.014	0.623	**0.014**
Ministry of Public Security and Safety	0.695	2.003	0.514	7.804	0.317
Ministry of Science and Technology	-20.431	0.000	0.000	.	0.998
State Universal Basic Education Board	-1.076	0.341	0.083	1.393	0.134
Transport Authority	-1.308	0.270	0.068	1.083	0.065
Current job role/position					
Data and Information Technology (Ref)		1			
Education and Training	-0.676	0.508	0.043	6.076	0.593
Finance and Accounting	-1.259	0.284	0.040	2.020	0.209
Healthcare	1.575	4.832	0.812	28.749	0.083
Human Resources	-18.494	0.000	0.000	.	0.999
Logistics, Procurement and Records	2.442	11.494	2.766	47.761	**0.001**
Management and Administration	-0.486	0.615	0.224	1.694	0.347
Specialized and other roles	1.889	6.616	0.545	80.336	0.138
Technical and Engineering	-17.573	0.000	0.000	.	0.999
Current cadre					
Directorate (Ref)		1			
Junior	1.014	2.756	0.452	16.799	0.272
Senior	2.030	7.616	2.071	28.004	**0.002**
Years of work					
<5 years (Ref)		1			
≥5 years	-1.008	0.365	0.135	0.987	**0.047**
Working hours					
≤8 hours (Ref)		1			
>8 hours	-0.177	0.838	0.299	2.351	0.737
Monthly income (₦)					
<70,000	-1.566	0.209	0.006	7.710	0.395
200,000–299,999	-3.873	0.021	0.001	0.380	**0.009**
300,000–399,999	-2.097	0.123	0.004	4.201	0.245
70,000–199,999	-3.541	0.029	0.001	0.584	**0.021**
≥400,000 (Ref)		1			
Knowledge					
Poor (Ref)		1			
Good	-0.488	0.614	0.259	1.455	0.268
Attitude					
Negative (Ref)		1			
Positive	-0.290	0.748	0.317	1.764	0.507

R^2=29.8%-53.3% ; AOR=Adjusted Odds Ratio, 95% CI

With increasing age, the odds of depression slightly decreased; however, this was not statistically significant (AOR = 0.984, 95% CI: 0.916–1.056, p = 0.650). Male respondents were more likely to have depression compared to females, although this was not statistically significant (AOR = 1.895, 95% CI: 0.795–4.517, p = 0.149). Non-Edo respondents had similar odds of depression compared to Edo respondents (AOR = 0.973, 95% CI: 0.379–2.498, p = 0.955).

Religion was a significant predictor of depression, as respondents practicing Islam were significantly more likely to have depression compared to Christians (AOR = 37.475, 95% CI: 9.436–148.829, p < 0.001). Marital status was not significantly associated with depression, with never married respondents having comparable odds to those ever married (AOR = 1.673, 95% CI: 0.544–5.145, p = 0.369).

Regarding ministry or department, respondents working in the Ministry of Health were significantly less likely to have depression compared to those in the Ministry of Budget, Planning and Economic Development (AOR = 0.024, 95% CI: 0.003–0.216, p = 0.001). Similarly, those in Edo State Hospitals Management Agency had significantly lower odds of depression (AOR = 0.094, 95% CI: 0.014–0.623, p = 0.014). Other ministries, including the Civil Service Commission, Ministry of Education, Edo State Oil and Gas Producing Areas Development Commission, Ministry of Public Security and Safety, Ministry of Science and Technology, State Universal Basic Education Board, and Transport Authority, were not significantly associated with depression.

In terms of current job role/position, respondents working in Logistics, Procurement and Records were significantly more likely to have depression compared to those in Data and Information Technology (AOR = 11.494, 95% CI: 2.766–47.761, p = 0.001). Other job roles, including

Education and Training, Finance and Accounting, Healthcare, Human Resources, Management and Administration, Specialized and other roles, and Technical and Engineering, were not significantly associated with depression.

For cadre, senior staff were significantly more likely to have depression compared to those in directorate positions (AOR = 7.616, 95% CI: 2.071–28.004, p = 0.002), while junior staff were not significantly different (AOR = 2.756, 95% CI: 0.452–16.799, p = 0.272). Years of work was a significant predictor, as respondents with five or more years of experience were significantly less likely to have depression compared to those with less than five years (AOR = 0.365, 95% CI: 0.135–0.987, p = 0.047).

Working hours per day was not significantly associated with depression, as those working more than eight hours had similar odds compared to those working eight hours or less (AOR = 0.838, 95% CI: 0.299–2.351, p = 0.737).

Monthly income showed significant associations at some levels. Respondents earning ₦200,000–₦299,999 were significantly less likely to have depression compared to those earning ≥₦400,000 (AOR = 0.021, 95% CI: 0.001–0.380, p = 0.009), and those earning ₦70,000–₦199,999 were also significantly less likely to have depression (AOR = 0.029, 95% CI: 0.001–0.584, p = 0.021). Other income categories were not statistically significant.

Knowledge level was not significantly associated with depression, as respondents with good knowledge had lower odds compared to those with poor knowledge, though not statistically significant (AOR = 0.614, 95% CI: 0.259–1.455, p = 0.268). Similarly, attitude was not a significant predictor, as respondents with a positive attitude had lower odds of depression compared to those with a negative attitude (AOR = 0.748, 95% CI: 0.317–1.764, p = 0.507).

Table 20: Predictors of presence of anxiety among respondents

Variable	B	AOR	95% CI (Lower)	95% CI (Upper)	p-value
Age (years)	0.069	1.071	1.010	1.136	**0.022**
Sex					
Female (Ref)		1			
Male	-0.199	0.820	0.393	1.710	0.596
Ethnicity					
Edo (Ref)		1			
Non-Edo	-0.216	0.806	0.362	1.795	0.597
Religion					
Christianity (Ref)		1			
Islam	-1.877	0.153	0.028	0.851	**0.032**
Marital status					
Ever married (Ref)		1			
Never married	-0.262	0.770	0.285	2.082	0.606
Ministry/Department/Agency					
Ministry of Budget, Planning and Economic Development (Ref)		1			
Civil Service Commission	-0.933	0.393	0.043	3.608	0.409
Ministry of Education	1.118	3.059	0.904	10.344	0.072
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	-0.709	0.492	0.021	11.434	0.659
Ministry of Health	-1.747	0.174	0.037	0.819	**0.027**
Edo State Hospitals Management Agency	0.079	1.082	0.241	4.858	0.918
Ministry of Public Security and Safety	-0.142	0.868	0.207	3.644	0.846
Ministry of Science and Technology	0.014	1.014	0.147	6.968	0.989
State Universal Basic Education Board	0.243	1.275	0.301	5.401	0.742
Transport Authority	-0.297	0.743	0.200	2.769	0.659
Current job role/position					
Data and Information Technology (Ref)		1			
Education and Training	2.113	8.270	1.532	44.640	**0.014**
Finance and Accounting	1.313	3.717	0.760	18.169	0.105
Healthcare	3.338	28.176	5.953	133.364	**<0.001**
Human Resources	-16.487	0.000	0.000	.	0.999
Logistics, Procurement and Records	0.635	1.887	0.403	8.843	0.420
Management and Administration	1.608	4.994	1.984	12.569	**0.001**
Specialized and other roles	4.952	141.471	7.537	2655.587	**0.001**
Technical and Engineering	3.654	38.637	2.013	741.425	**0.015**
Current cadre					
Directorate (Ref)		1			
Junior	-1.302	0.272	0.064	1.150	0.077
Senior	-0.329	0.720	0.282	1.839	0.492
Years of work					
<5 years (Ref)		1			
≥5 years	-0.633	0.531	0.251	1.125	0.098
Working hours					
≤8 hours (Ref)		1			
>8 hours	0.423	1.526	0.640	3.637	0.340
Monthly income (₦)					
<70,000	-1.110	0.329	0.006	16.759	0.580
200,000–299,999	-0.830	0.436	0.041	4.602	0.490
300,000–399,999	-22.967	0.000	0.000	.	0.998
70,000–199,999	-0.532	0.588	0.052	6.674	0.668
≥400,000 (Ref)		1			
Knowledge					
Poor (Ref)		1			
Good	0.319	1.376	0.621	3.050	0.432
Attitude					
Negative (Ref)		1			
Positive	-1.948	0.142	0.070	0.292	**<0.001**
Depression					
Absent (Ref)		1			
Present	3.238	25.475	8.779	73.923	**<0.001**

R^2= 32.9%-51.7% ; AOR= Adjusted Odds Ratio

With increasing age, the odds of anxiety significantly increased (AOR = 1.071, 95% CI: 1.010–1.136, p = 0.022). Male respondents were less likely to experience anxiety compared to females; however, this was not statistically significant (AOR = 0.820, 95% CI: 0.393–1.710, p = 0.596). Similarly, non-Edo respondents had lower odds of anxiety compared to Edo respondents, though this was not statistically significant (AOR = 0.806, 95% CI: 0.362–1.795, p = 0.597).

Religion was a significant predictor of anxiety, as Muslim respondents were significantly less likely to have anxiety compared to Christians (AOR = 0.153, 95% CI: 0.028–0.851, p = 0.032). Marital status was not significantly associated with anxiety, with never married respondents having comparable odds to those ever married (AOR = 0.770, 95% CI: 0.285–2.082, p = 0.606).

In terms of ministry or department, respondents working in the Ministry of Health were significantly less likely to experience anxiety compared to those in the Ministry of Budget, Planning and Economic Development (AOR = 0.174, 95% CI: 0.037–0.819, p = 0.027). Other ministries, including the Civil Service Commission, Ministry of Education, Edo State Oil and Gas Producing Areas Development Commission, Edo State Hospitals Management Agency, Ministry of Public Security and Safety, Ministry of Science and Technology, State Universal Basic Education Board, and Transport Authority, were not significantly associated with anxiety.

Current job role/position showed several significant associations. Respondents in Education and Training were significantly more likely to have anxiety compared to those in Data and Information Technology (AOR = 8.270, 95% CI: 1.532–44.640, p = 0.014). Those working in healthcare had markedly higher odds of anxiety (AOR = 28.176, 95% CI: 5.953–133.364, p < 0.001). Similarly, respondents in Management and Administration were more likely to experience anxiety (AOR = 4.994, 95% CI: 1.984–12.569, p = 0.001). Respondents in

specialized and other roles also had substantially higher odds (AOR = 141.471, 95% CI: 7.537–2655.587, p = 0.001), as did those in Technical and Engineering roles (AOR = 38.637, 95% CI: 2.013–741.425, p = 0.015). Finance and Accounting, Human Resources, and Logistics, Procurement and Records were not significantly associated with anxiety.

Cadre and years of work were not statistically significant predictors. Junior staff had lower odds of anxiety compared to those in directorate positions (AOR = 0.272, 95% CI: 0.064–1.150, p = 0.077), while senior staff also had lower odds (AOR = 0.720, 95% CI: 0.282–1.839, p = 0.492). Respondents with five or more years of work experience were less likely to have anxiety compared to those with less than five years, although this was not statistically significant (AOR = 0.531, 95% CI: 0.251–1.125, p = 0.098).

Working hours per day was not significantly associated with anxiety, as those working more than eight hours had higher odds compared to those working eight hours or less, though not statistically significant (AOR = 1.526, 95% CI: 0.640–3.637, p = 0.340). Monthly income categories were also not significantly associated with anxiety.

Knowledge level was not a significant predictor of anxiety, as respondents with good knowledge had slightly higher odds compared to those with poor knowledge (AOR = 1.376, 95% CI: 0.621–3.050, p = 0.432). In contrast, attitude was a strong predictor, with respondents who had a positive attitude being significantly less likely to experience anxiety compared to those with a negative attitude (AOR = 0.142, 95% CI: 0.070–0.292, p < 0.001).

Depression was also a strong predictor of anxiety. Respondents with depression were significantly more likely to experience anxiety compared to those without depression (AOR = 25.475, 95% CI: 8.779–73.923, p < 0.001).

Table 21: Predictors of presence of stress among respondents

Variable	B	AOR	95% CI (Lower)	95% CI (Upper)	p-value
Age (years)	0.094	1.099	0.958	1.260	0.177
Sex					
Female		1			
Male	-1.476	0.229	0.035	1.495	0.123
Ethnicity					
Edo		1			
Non-Edo	-2.230	0.108	0.008	1.415	0.090
Religion					
Christianity		1			
Islam	-16.517	0.000	0.000	.	0.998
Marital status					
Ever married		1			
Never married	-1.596	0.203	0.015	2.808	0.234
Ministry/Department/Agency					
Ministry of Budget, Planning and Economic Development		1			
Civil Service Commission	-18.218	0.000	0.000	.	0.998
Ministry of Education	-1.786	0.168	0.006	4.341	0.282
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	1.249	3.488	0.029	423.547	0.610
Ministry of Health	-1.068	0.344	0.011	10.275	0.538
Edo State Hospitals Management Agency	-0.833	0.435	0.012	15.494	0.648
Ministry of Public Security and Safety	1.528	4.610	0.341	62.381	0.250
Ministry of Science and Technology	-19.014	0.000	0.000	.	0.998
State Universal Basic Education Board	-1.910	0.148	0.009	2.393	0.179
Transport Authority	-0.171	0.843	0.063	11.197	0.897
Current job role/position					
Data and Information Technology		1			
Education and Training	3.730	41.687	0.810	2145.329	0.064
Finance and Accounting	-1.709	0.181	0.003	10.000	0.404
Healthcare	0.760	2.138	0.092	49.728	0.636
Human Resources	-15.888	0.000	0.000	.	0.999
Logistics, Procurement and Records	0.147	1.159	0.085	15.787	0.912
Management and Administration	-0.521	0.594	0.052	6.780	0.675
Specialized and other roles	0.281	1.324	0.022	79.338	0.893
Technical and Engineering	3.730	41.680	0.330	5270.370	0.131
Current cadre					
Directorate		1			
Junior	2.040	7.691	0.175	337.074	0.290
Senior	2.158	8.652	0.727	103.037	0.088
Years of work					
<5 years (Ref)		1			
≥5 years	0.483	1.620	0.212	12.404	0.642
Working hours					
>8 hours		1			
≤ 8 hours	-4.620	0.010	0.000	0.276	**0.007**
Monthly income (₦)					
<70,000	7.271	1437.648	0.573	3606336.669	0.069
200,000–299,999	-0.963	0.382	0.011	12.691	0.590
300,000–399,999	-17.651	0.000	0.000	.	0.999
70,000–199,999	-0.232	0.793	0.018	35.290	0.905
≥400,000		1			
Knowledge					
Poor		1			
Good	-1.337	0.263	0.043	1.597	0.147
Attitude					
Negative		1			
Positive	0.011	1.011	0.172	5.930	0.990
Depression					
Absent		1			
Present	2.475	11.886	1.865	75.742	**0.009**
Anxiety					
Absent		1			
Present	3.497	33.019	3.905	279.164	**0.001**

R^2 = 26.5%–69.9%; AOR = Adjusted Odds Ratio

With increasing age, the odds of stress increased; however, this association was not statistically significant (AOR = 1.099, 95% CI: 0.958–1.260, p = 0.177). Male respondents were less likely to experience stress compared to females, although this was not statistically significant (AOR = 0.229, 95% CI: 0.035–1.495, p = 0.123). Non-Edo respondents were also less likely to have stress compared to Edo respondents, but this was not statistically significant (AOR = 0.108, 95% CI: 0.008–1.415, p = 0.090).

Religion and marital status were not significant predictors of stress. Muslim respondents had lower odds of stress compared to Christians, but this was not statistically significant (AOR = 0.000, p = 0.998). Similarly, never married respondents had lower odds of stress compared to those ever married, though this was not statistically significant (AOR = 0.203, 95% CI: 0.015–2.808, p = 0.234).

With respect to ministry or department, none of the categories showed a statistically significant association with stress when compared to the Ministry of Budget, Planning and Economic Development. Although respondents in the Ministry of Public Security and Safety had higher odds of stress (AOR = 4.610, 95% CI: 0.341–62.381, p = 0.250), and those in several other ministries had reduced odds, these associations were not statistically significant.

Current job role/position was not significantly associated with stress across most categories. Although respondents in Education and Training (AOR = 41.687, 95% CI: 0.810–2145.329, p = 0.064) and Technical and Engineering roles (AOR = 41.680, 95% CI: 0.330–5270.370, p = 0.131) showed higher odds, these were not statistically significant. Other job roles, including Finance and Accounting, Healthcare, Human Resources, Logistics, Procurement and Records,

Management and Administration, and Specialized and other roles, were also not significantly associated with stress.

Cadre was not a statistically significant predictor of stress. Junior staff had higher odds of stress compared to those in directorate positions (AOR = 7.691, 95% CI: 0.175–337.074, p = 0.290), as did senior staff (AOR = 8.652, 95% CI: 0.727–103.037, p = 0.088), though neither association reached statistical significance. Years of work experience was also not significantly associated with stress, as respondents with five or more years of experience had slightly higher odds compared to those with less than five years (AOR = 1.620, 95% CI: 0.212–12.404, p = 0.642).

Working hours per day was a significant predictor of stress. Respondents who worked more than eight hours per day were significantly less likely to experience stress compared to those who worked eight hours or less (AOR = 0.010, 95% CI: 0.000–0.276, p = 0.007). Monthly income was not significantly associated with stress across all categories, although respondents earning less than ₦70,000 showed markedly higher odds (AOR = 1437.648, 95% CI: 0.573–3606336.669, p = 0.069), this was not statistically significant.

Knowledge level and attitude were not significant predictors of stress. Respondents with good knowledge had lower odds of stress compared to those with poor knowledge, though this was not statistically significant (AOR = 0.263, 95% CI: 0.043–1.597, p = 0.147). Similarly, respondents with a positive attitude had comparable odds of stress relative to those with a negative attitude (AOR = 1.011, 95% CI: 0.172–5.930, p = 0.990).

Mental health comorbidities were significant predictors of stress. Respondents with depression were significantly more likely to experience stress compared to those without depression (AOR = 11.886, 95% CI: 1.865–75.742, p = 0.009). Likewise, respondents with anxiety were

significantly more likely to have stress compared to those without anxiety (AOR = 33. 019, 95% CI: 3.905–279.164, p = 0.001).

Table 22: Predictors of poor mental health status among respondents

Variable	B	AOR	95% CI (Lower)	95% CI (Upper)	p-value
Age (years)	0.017	1.017	0.970	1.067	0.482
Sex					
Female		1			
Male	0.164	1.178	0.646	2.148	0.593
Ethnicity					
Edo		1			
Non-Edo	-0.052	0.949	0.495	1.822	0.876
Religion					
Christianity		1			
Islam	2.055	7.803	2.711	22.465	**<0.001**
Marital status					
Ever married		1			
Never married	-0.020	0.980	0.419	2.292	0.964
Ministry/Department/Agency					
Ministry of Budget, Planning and Economic Development		1			
Civil Service Commission	-0.743	0.476	0.122	1.850	0.284
Ministry of Education	0.287	1.332	0.486	3.651	0.578
Edo State Oil and Gas Producing Areas Development Commission (EDSOGPADEC)	-1.910	0.148	0.015	1.454	0.101
Ministry of Health	-3.246	0.039	0.010	0.149	**<0.001**
Edo State Hospitals Management Agency	-1.159	0.314	0.086	1.140	0.078
Ministry of Public Security and Safety	-0.070	0.932	0.274	3.167	0.911
Ministry of Science and Technology	-1.816	0.163	0.031	0.846	0.031
State Universal Basic Education Board	-0.796	0.451	0.145	1.408	0.171
Transport Authority	-0.706	0.493	0.176	1.381	0.178
Current job role/position					
Data and Information Technology		1			
Education and Training	0.929	2.532	0.588	10.903	0.212
Finance and Accounting	-0.303	0.738	0.182	2.988	0.671
Healthcare	2.344	10.422	2.975	36.508	**<0.001**
Human Resources	-18.823	0.000	0.000	.	0.999
Logistics, Procurement and Records	2.028	7.598	2.353	24.537	**0.001**
Management and Administration	0.574	1.776	0.879	3.590	0.110
Specialized and other roles	4.588	98.290	4.500	2147.101	**0.004**
Technical and Engineering	3.216	24.917	2.127	291.906	**0.010**
Current cadre					
Directorate		1			
Junior	-0.320	0.726	0.224	2.353	0.594
Senior	0.771	2.163	0.978	4.780	0.057
Years of work					
<5 years		1			
≥5 years	-1.087	0.337	0.177	0.641	**0.001**
Working hours					
≤8 hours		1			
>8 hours	0.074	1.077	0.519	2.233	0.842
Monthly income (₦)					
<70,000	-1.720	0.179	0.009	3.505	0.257
200,000–299,999	-1.901	0.149	0.017	1.279	0.083
300,000–399,999	-2.127	0.119	0.007	2.009	0.140
70,000–199,999	-1.685	0.185	0.020	1.695	0.136
≥400,000		1			
Knowledge					
Poor		1			
Good	0.234	1.264	0.670	2.386	0.470
Attitude					
Negative		1			
Positive	-1.637	0.195	0.107	0.353	**<0.001**

R^2 =29.1%–42.0%; AOR = Adjusted Odds Ratio, 95% CI

Respondents who were Muslim were significantly more likely to have poor mental health compared to Christians (AOR = 7.517; 95% CI: 2.803–20.158; $p < 0.001$).

Compared to respondents in the Ministry of Budget, Planning and Economic Development, those working in the Ministry of Health were significantly less likely to have poor mental health (AOR = 0.040; 95% CI: 0.011–0.139; $p < 0.001$). No other ministries showed a statistically significant association.

With respect to job role, respondents working in healthcare were about 10 times more likely to have poor mental health compared to those in Data and Information Technology (AOR = 10.083; 95% CI: 3.013–33.000; $p < 0.001$). Similarly, those in logistics, procurement and records were about 6 times more likely to have poor mental health (AOR = 6.078; 95% CI: 1.996–18.504; $p = 0.001$). Other job roles were not statistically significant.

Respondents in the senior cadre were about twice as likely to have poor mental health compared to those in the director cadre (AOR = 2.091; 95% CI: 1.026–4.261; $p = 0.042$), while junior cadre was not significantly associated.

Respondents who had worked for 5 years or more were less likely to have poor mental health compared to those who had worked for less than 5 years (AOR = 0.395; 95% CI: 0.220–0.707; $p = 0.002$).

Respondents with poor attitude were less likely to have poor mental health compared to those with good attitude (AOR = 0.198; 95% CI: 0.111–0.353; $p < 0.001$).

SECTION E

FACTORS INFLUENCING MENTAL HEALTH STATUS

Table 23: Factors influencing mental health status among respondents (n = 460)

Variable	Frequency	Percent
Experienced a high workload or excessive job demands in my workplace		
Yes	215	46.7
No	245	53.3
Time pressure and tight deadlines at work negatively affected my mental well-being		
Yes	271	58.9
No	189	41.1
Effort put into work is not adequately matched by rewards (e.g. salary, recognition)		
Yes	320	69.6
No	140	30.4
Felt there was inadequate institutional support for employees experiencing mental health challenges		
Yes	354	77.0
No	106	23.0
Lack of clear workplace mental health policies affected willingness to seek help		
Yes	257	55.9
No	203	44.1
Fear of stigma or discrimination discourages employees from discussing mental health issues at work		
Yes	365	79.3
No	95	20.7
Attitudes and behaviour of my colleagues influence my mental well-being		
Yes	257	55.9
No	203	44.1
Conflicts with supervisors or coworkers negatively affect mental health		
Yes	268	58.3
No	192	41.7
Financial difficulties or inadequate income contribute stress or emotional distress		
Yes	317	68.9
No	143	31.1
Personal or family-related problems affect mental health and work performance		
Yes	326	70.9
No	134	29.1

High workload was reported by 215 (46.7%) respondents, while 245 (53.3%) did not report it.

Time pressure was reported by 271 (58.9%), while 189 (41.1%) did not.

Inadequate rewards were reported by 320 (69.6%), while 140 (30.4%) did not.

Lack of institutional support was reported by 354 (77.0%), while 106 (23.0%) did not. Lack of clear workplace policies was reported by 257 (55.9%), while 203 (44.1%) did not. Fear of stigma was reported by 365 (79.3%), while 95 (20.7%) did not.

Colleague attitudes were reported by 257 (55.9%) respondents, while 203 (44.1%) did not. Conflicts with supervisors or coworkers were reported by 268 (58.3%), while 192 (41.7%) did not. Financial difficulties were reported by 317 (68.9%), while 143 (31.1%) did not. Personal or family-related problems were reported by 326 (70.9%), while 134 (29.1%) did not.

Table 24: Factors Influencing Depression Among Respondents

Variable	Depression n (%)		Test Statistic (χ^2)	p-value
	Absent (n = 383)	Present (n = 77)		
High workload / excessive job demands			1.008	0.315
No	208 (84.9)	37 (15.1)		
Yes	175 (81.4)	40 (18.6)		
Time pressure / tight deadlines			0.026	0.872
No	158 (83.6)	31 (16.4)		
Yes	225 (83.0)	46 (17.0)		
Long working hours / inadequate rest			5.405	**0.020**
No	108 (77.1)	32 (22.9)		
Yes	275 (86.0)	45 (14.0)		
Effort not matched by rewards			14.197	**<0.001**
No	184 (90.6)	19 (9.4)		
Yes	199 (77.4)	58 (22.6)		
Inadequate institutional support			0.139	0.709
No	87 (82.1)	19 (17.9)		
Yes	296 (83.6)	58 (16.4)		
Lack of workplace mental health policies			0.344	0.557
No	81 (85.3)	14 (14.7)		
Yes	302 (82.7)	63 (17.3)		
Fear of stigma / discrimination			1.022	0.312
No	165 (81.3)	38 (18.7)		
Yes	218 (84.8)	39 (15.2)		
Colleagues' attitudes / behaviour			5.036	**0.025**
No	151 (78.7)	41 (21.3)		
Yes	232 (86.6)	36 (13.4)		
Conflicts with supervisors / coworkers			2.677	0.102
No	113 (79.0)	30 (21.0)		
Yes	270 (85.2)	47 (14.8)		
Financial difficulties / inadequate income			8.441	**0.004**
No	101 (75.4)	33 (24.6)		
Yes	282 (86.5)	44 (13.5)		

χ^2 - Chi square

High workload or excessive job demands was not significantly associated with depression, as respondents who reported high workload had slightly higher odds of depression compared to those who did not, but this difference was not statistically significant ($\chi^2 = 1.008$; $p = 0.315$).

Time pressure and tight deadlines were also not significantly associated with depression ($\chi^2 = 0.026$; $p = 0.872$).

Long working hours or inadequate rest periods were significantly associated with depression. Respondents who reported long working hours had higher odds of depression compared to those who did not ($\chi^2 = 5.405$; $p = 0.020$).

Effort not matched by rewards was strongly associated with depression. Respondents who felt their effort was not adequately rewarded were significantly more likely to report depression compared to those who felt adequately rewarded ($\chi^2 = 14.197$; $p < 0.001$).

Inadequate institutional support was not significantly associated with depression ($\chi^2 = 0.139$; $p = 0.709$).

Lack of workplace mental health policies was also not significantly associated with depression ($\chi^2 = 0.344$; $p = 0.557$).

Fear of stigma or discrimination did not show a significant association with depression ($\chi^2 = 1.022$; $p = 0.312$).

Colleagues' attitudes and behaviour were significantly associated with depression. Respondents who reported negative influence from colleagues were more likely to experience depression compared to those who did not ($\chi^2 = 5.036$; $p = 0.025$).

Conflicts with supervisors or coworkers were not significantly associated with depression (χ^2 = 2.677; p = 0.102).

Financial difficulties or inadequate income were significantly associated with depression. Respondents who reported financial difficulties were more likely to experience depression compared to those who did not (χ^2 = 8.441; p = 0.004).

Table 25: Predictors of Depression among Respondents

Predictor	B	AOR	95% CI (Lower)	95% CI (Upper)	p-value
High workload or excessive job demands					
No (Ref)		1			
Yes	0.419	0.658	0.318	1.361	0.254
Time pressure / tight deadlines					
No (Ref)		1			
Yes	0.308	0.735	0.329	1.642	0.452
Long working hours / inadequate rest					
No (Ref)		1			
Yes	0.603	1.827	0.857	3.896	0.115
Effort not matched by rewards					
No (Ref)		1			
Yes	1.598	0.202	0.100	0.408	**<0.001**
Inadequate institutional support					
No (Ref)		1			
Yes	0.220	0.802	0.392	1.642	0.549
Lack of workplace mental health policies					
No (Ref)		1			
Yes	0.052	1.054	0.510	2.176	0.887
Fear of stigma / discrimination					
No (Ref)		1			
Yes	0.084	0.919	0.436	1.939	0.826
Colleagues' attitudes / behaviour					
No (Ref)		1			
Yes	0.828	2.288	1.021	5.129	**0.044**
Conflicts with supervisors / coworkers					
No (Ref)		1			
Yes	0.018	0.982	0.412	2.342	0.967
Financial difficulties / inadequate income					
No (Ref)		1			
Yes	1.008	2.739	1.145	6.548	**0.024**

R^2 =19.1%–31.0%; AOR = Adjusted Odds Ratio, 95% CI

High workload or excessive job demands was not significantly associated with depression, as respondents who reported high workload had slightly higher odds of depression compared to those who did not, but this difference was not statistically significant ($p = 0.254$). Time pressure or tight deadlines were also not significantly associated with depression ($p = 0.452$). Long working hours or inadequate rest were not significantly associated with depression ($p = 0.115$). Effort not matched by rewards was strongly associated with depression. Respondents who felt their effort was not adequately rewarded were significantly more likely to report depression compared to those who felt adequately rewarded ($p < 0.001$). Inadequate institutional support was not significantly associated with depression ($p = 0.549$). Lack of workplace mental health policies was also not significantly associated with depression ($p = 0.887$). Fear of stigma or discrimination did not show a significant association with depression ($p = 0.826$). Colleagues' attitudes or behaviour were significantly associated with depression. Respondents who reported negative influence from colleagues were more likely to experience depression compared to those who did not ($p = 0.044$). Conflicts with supervisors or coworkers were not significantly associated with depression ($p = 0.967$). Financial difficulties or inadequate income were significantly associated with depression. Respondents who reported financial difficulties were more likely to experience depression compared to those who did not ($p = 0.024$).

Table 26: Factors Influencing Anxiety Among Respondents

Variable	Anxiety n (%)		Test Statistic (χ^2)	p-value
	Absent (n = 383)	Present (n = 77)		
High workload / excessive job demands			1.008	0.315
No	208 (84.9)	37 (15.1)		
Yes	175 (81.4)	40 (18.6)		
Time pressure / tight deadlines			0.026	0.872
No	158 (83.6)	31 (16.4)		
Yes	225 (83.0)	46 (17.0)		
Long working hours / inadequate rest			5.405	**0.020**
No	108 (77.1)	32 (22.9)		
Yes	275 (86.0)	45 (14.0)		
Effort not matched by rewards			14.197	**<0.001**
No	184 (90.6)	19 (9.4)		
Yes	199 (77.4)	58 (22.6)		
Inadequate institutional support			0.139	0.709
No	87 (82.1)	19 (17.9)		
Yes	296 (83.6)	58 (16.4)		
Lack of workplace mental health policies			0.344	0.557
No	81 (85.3)	14 (14.7)		
Yes	302 (82.7)	63 (17.3)		
Fear of stigma / discrimination			1.022	0.312
No	165 (81.3)	38 (18.7)		
Yes	218 (84.8)	39 (15.2)		
Colleagues' attitudes / behaviour			5.036	**0.025**
No	151 (78.7)	41 (21.3)		
Yes	232 (86.6)	36 (13.4)		
Conflicts with supervisors / coworkers			2.677	0.102
No	113 (79.0)	30 (21.0)		
Yes	270 (85.2)	47 (14.8)		
Financial difficulties / inadequate income			8.441	**0.004**
No	101 (75.4)	33 (24.6)		
Yes	282 (86.5)	44 (13.5)		

χ^2 - Chi square

High workload or excessive job demands was not significantly associated with anxiety, as respondents who reported high workload had slightly higher odds of anxiety compared to those who did not, but this difference was not statistically significant ($\chi^2 = 1.008$; $p = 0.315$). Time pressure and tight deadlines were also not significantly associated with anxiety ($\chi^2 = 0.026$; $p = 0.872$). Long working hours or inadequate rest periods were significantly associated with anxiety. Respondents who reported long working hours had higher odds of anxiety compared to those who did not ($\chi^2 = 5.405$; $p = 0.020$). Effort not matched by rewards was strongly associated with anxiety. Respondents who felt their effort was not adequately rewarded were significantly more likely to report anxiety compared to those who felt adequately rewarded ($\chi^2 = 14.197$; $p < 0.001$). Inadequate institutional support was not significantly associated with anxiety ($\chi^2 = 0.139$; $p = 0.709$). Lack of workplace mental health policies was also not significantly associated with anxiety ($\chi^2 = 0.344$; $p = 0.557$). Fear of stigma or discrimination did not show a significant association with anxiety ($\chi^2 = 1.022$; $p = 0.312$). Colleagues' attitudes and behaviour were significantly associated with anxiety. Respondents who reported negative influence from colleagues were more likely to experience anxiety compared to those who did not ($\chi^2 = 5.036$; $p = 0.025$). Conflicts with supervisors or coworkers were not significantly associated with anxiety ($\chi^2 = 2.677$; $p = 0.102$). Financial difficulties or inadequate income were significantly associated with anxiety. Respondents who reported financial difficulties were more likely to experience anxiety compared to those who did not ($\chi^2 = 8.441$; $p = 0$

Table 27: Predictors of Anxiety among Respondents

Predictor	B	AOR	95% CI (Lower)	95% CI (Upper)	p-value
High workload / excessive job demands					
No (ref)		1			
Yes	1.061	0.346	0.186	0.645	**0.001**
Time pressure / tight deadlines					
No (ref)		1			
Yes	0.091	0.913	0.485	1.719	0.779
Long working hours / inadequate rest					
No (ref)		1			
Yes	0.449	0.638	0.317	1.283	0.208
Effort not matched by rewards					
No (ref)		1			
Yes	0.587	1.798	1.003	3.226	**0.049**
Inadequate institutional support					
No (ref)		1			
Yes	0.833	2.300	1.184	4.469	**0.014**
Lack of workplace mental health policies					
No (ref)		1			
Yes	0.111	1.117	0.615	2.030	0.716
Fear of stigma / discrimination					
No (ref)		1			
Yes	0.586	1.796	0.969	3.330	0.063
Colleagues' attitudes / behaviour					
No (ref)		1			
Yes	0.306	1.359	0.689	2.679	0.376
Conflicts with supervisors / coworkers					
No (ref)		1			
Yes	0.231	0.794	0.390	1.613	0.523
Financial difficulties / inadequate income					
No (ref)		1			
Yes	0.294	0.746	0.355	1.567	0.438

R^2 =10.1%–21.0%; AOR = Adjusted Odds Ratio, 95% CI

High workload or excessive job demands was significantly associated with anxiety. Respondents who reported high workload had higher odds of anxiety compared to those who did not ($p = 0.001$). Time pressure or tight deadlines were not significantly associated with anxiety ($p = 0.779$). Long working hours or inadequate rest were also not significantly associated with anxiety ($p = 0.208$). Effort not matched by rewards was significantly associated with anxiety. Respondents who felt their effort was not adequately rewarded were more likely to eperience anxiety compared to those who felt adequately rewarded ($p = 0.049$). Inadequate institutional support was significantly associated with anxiety. Respondents who reported inadequate support were more likely to experience anxiety compared to those who did not ($p = 0.014$). Lack of workplace mental health policies was not significantly associated with anxiety ($p = 0.716$). Fear of stigma or discrimination did not show a significant association with anxiety ($p = 0.063$). Colleagues' attitudes or behaviour were not significantly associated with anxiety ($p = 0.376$). Conflicts with supervisors or coworkers were not significantly associated with anxiety ($p = 0.523$). Financial difficulties or inadequate income were not significantly associated with anxiety ($p = 0.438$).

Table 28: Factors Influencing Stress Among Respondents

Variable	Stress n (%)		Test Statistic (χ^2)	p-value
	Absent (n = 383)	Present (n = 77)		
High workload / excessive job demands			6.435	**0.011**
No	230 (93.9)	15 (6.1)		
Yes	187 (87.0)	28 (13.0)		
Time pressure / tight deadlines			4.711	**0.030**
No	178 (94.2)	11 (5.8)		
Yes	239 (88.2)	32 (11.8)		
Long working hours / inadequate rest			0.143	0.705
No	128 (91.4)	12 (8.6)		
Yes	289 (90.3)	31 (9.7)		
Effort not matched by rewards			6.619	**0.010**
No	192 (94.6)	11 (5.4)		
Yes	225 (87.5)	32 (12.5)		
Inadequate institutional support			1.382	0.240
No	93 (87.7)	13 (12.3)		
Yes	324 (91.5)	30 (8.5)		
Lack of workplace mental health policies			2.357	0.125
No	90 (94.7)	5 (5.3)		
Yes	327 (89.6)	38 (10.4)		
Fear of stigma / discrimination			1.645	0.200
No	188 (92.6)	15 (7.4)		
Yes	229 (89.1)	28 (10.9)		
Colleagues' attitudes / behaviour			0.444	0.505
No	172 (89.6)	20 (10.4)		
Yes	245 (91.4)	23 (8.6)		
Conflicts with supervisors / coworkers			3.450	0.063
No	135 (94.4)	8 (5.6)		
Yes	282 (89.0)	35 (11.0)		
Financial difficulties / inadequate income			0.793	0.373
No	124 (92.5)	10 (7.5)		
Yes	293 (89.9)	33 (10.1)		

χ^2 - Chi square

High workload or excessive job demands was significantly associated with stress. Respondents who reported high workload had higher odds of stress compared to those who did not ($\chi^2 = 6.435$; $p = 0.011$). Time pressure or tight deadlines were also significantly associated with stress. Respondents who reported tight deadlines were more likely to experience stress compared to those who did not ($\chi^2 = 4.711$; $p = 0.030$). Long working hours or inadequate rest were not significantly associated with stress ($\chi^2 = 0.143$; $p = 0.705$). Effort not matched by rewards was significantly associated with stress. Respondents who felt their effort was not adequately rewarded were more likely to experience stress compared to those who felt adequately rewarded ($\chi^2 = 6.619$; $p = 0.010$). Inadequate institutional support was not significantly associated with stress ($\chi^2 = 1.382$; $p = 0.240$). Lack of workplace mental health policies was also not significantly associated with stress ($\chi^2 = 3.257$; $p = 0.125$). Fear of stigma or discrimination did not show a significant association with stress ($\chi^2 = 1.645$; $p = 0.200$). Colleagues' attitudes or behaviour were not significantly associated with stress ($\chi^2 = 0.444$; $p = 0.505$). Conflicts with supervisors or coworkers were not significantly associated with stress ($\chi^2 = 4.450$; $p = 0.063$). Financial difficulties or inadequate income were not significantly associated with stress ($\chi^2 = 0.793$; $p = 0.373$).

Table 29: Predictors of Stress among Respondents

Predictor	B	AOR	95% CI (Lower)	95% CI (Upper)	p-value
High workload / excessive job demands					
No		1			
Yes	1.061	0.346	0.186	0.645	**0.001**
Time pressure / tight deadlines					
No		1			
Yes	0.091	0.913	0.485	1.719	0.779
Long working hours / inadequate rest					
No		1			
Yes	0.449	0.638	0.317	1.283	0.208
Effort not matched by rewards					
No		1			
Yes	0.587	1.798	1.003	3.226	**0.049**
Inadequate institutional support					
No		1			
Yes	0.833	2.300	1.184	4.469	**0.014**
Lack of workplace mental health policies					
No		1			
Yes	0.111	1.117	0.615	2.030	0.716
Fear of stigma / discrimination					
No		1			
Yes	0.586	1.796	0.969	3.330	0.063
Colleagues' attitudes / behaviour					
No		1			
Yes	0.306	1.359	0.689	2.679	0.376
Conflicts with supervisors / coworkers					
No		1			
Yes	0.231	0.794	0.390	1.613	0.523
Financial difficulties / inadequate income					
No		1			
Yes	0.294	0.746	0.355	1.567	0.438

R^2 =12%–22.6%; AOR = Adjusted Odds Ratio, 95% CI

High workload or excessive job demands was significantly associated with stress. Respondents who reported high workload had higher odds of stress compared to those who did not ($p = 0.001$). Time pressure or tight deadlines were not significantly associated with stress ($p = 0.779$). Long working hours or inadequate rest were also not significantly associated with stress ($p = 0.208$). Effort not matched by rewards was significantly associated with stress. Respondents who felt their effort was not adequately rewarded were more likely to experience stress compared to those who felt adequately rewarded ($p = 0.049$). Inadequate institutional support was significantly associated with stress. Respondents who reported inadequate support were more likely to experience stress compared to those who did not ($p = 0.014$). Lack of workplace mental health policies was not significantly associated with stress ($p = 0.716$). Fear of stigma or discrimination did not show a significant association with stress ($p = 0.063$). Colleagues' attitudes or behaviour were not significantly associated with stress ($p = 0.376$). Conflicts with supervisors or coworkers were not significantly associated with stress ($p = 0.523$). Financial difficulties or inadequate income were not significantly associated with stress ($p = 0.438$).

Table 30: Factors a influencing mental health status of respondents (n = 460)

Variable	Mental health status		Test statistic (χ^2)	p-value
	Good (n=321) n (%)	Poor (n=139) n (%)		
High workload or excessive job demands			5.996	**0.014**
No	183 (74.7)	62 (25.3)		
Yes	138 (64.2)	77 (35.8)		
Time pressure and tight deadlines			0.412	0.521
No	135 (71.4)	54 (28.6)		
Yes	186 (68.6)	85 (31.4)		
Effort not adequately matched by reward			0.354	0.552
No	95 (67.9)	45 (32.1)		
Yes	226 (70.6)	94 (29.4)		
Colleagues' attitudes and behaviour influence mental health			3.135	0.077
No	133 (65.5)	70 (34.5)		
Yes	188 (73.2)	69 (26.8)		
Conflicts with supervisors or coworkers			3.421	0.064
Yes	125 (65.1)	67 (34.9)		
No	196 (73.1)	72 (26.9)		
Financial difficulties or inadequate income			2.920	0.088
No	92 (64.3)	51 (35.7)		
Yes	229 (72.2)	88 (27.8)		
Personal or family-related problems			2.816	0.093
No	86 (64.2)	48 (35.8)		
Yes	235 (72.1)	91 (27.9)		

χ^2 - Chi square

High workload or excessive job demands was significantly associated with mental health status ($p = 0.014$). A higher proportion of respondents with high workload reported poor mental health (35.8%) compared to those without high workload (25.3%).

Time pressure and tight deadlines were not significantly associated with mental health status ($p = 0.521$). Poor mental health was reported by 31.4% of respondents with time pressure compared to 28.6% of those without.

Effort not adequately matched by reward was not significantly associated with mental health status ($p = 0.552$). Poor mental health was slightly lower among those who reported inadequate reward (29.4%) compared to those who did not (32.1%).

Colleagues' attitudes and behaviour were not significantly associated with mental health status ($p = 0.077$). Poor mental health was lower among respondents who reported negative influence from colleagues (26.8%) compared to those who did not (34.5%).

Conflicts with supervisors or coworkers were not significantly associated with mental health status ($p = 0.064$). Poor mental health was lower among respondents who reported conflicts (26.9%) compared to those who did not (34.9%).

Financial difficulties or inadequate income were not significantly associated with mental health status ($p = 0.088$). Poor mental health was lower among respondents with financial difficulties (27.8%) compared to those without (35.7%).

Personal or family-related problems were not significantly associated with mental health status ($p = 0.093$). Poor mental health was lower among respondents with such problems (27.9%) compared to those without (35.8%).

Table 31: Other selected predictors of prevalence of poor mental health conditions among respondents

Predictor	B	AOR	95% CI (Lower)	95% CI (Upper)	p-value
High workload or excessive job demands					
No (Ref)		1			
Yes	0.789	2.202	1.401	3.462	**0.001***
Conflicts with supervisors or coworkers					
Yes		1			
No	-0.707	0.493	0.313	0.777	**0.002***
Financial difficulties or inadequate income					
No (Ref)		1			
Yes	0.215	1.240	0.812	1.895	0.214
Personal or family-related problems					
No (Ref)		1			
Yes	0.167	1.182	0.754	1.852	0.312
Colleagues' attitudes and behaviour influence mental health					
No (Ref)		1			
Yes	0.098	1.103	0.692	1.758	0.487
Effort not adequately matched by reward					
No (Ref)		1			
Yes	0.142	1.152	0.731	1.815	0.398

R^2 =12.1%–22.0%; AOR Adjusted Odds Ratio, 95% CI

For factors influencing mental health, respondents who reported high workload were more likely to have mental health conditions (AOR=2.202, 95% CI=1.401–3.462, p=0.001), and this was statistically significant.

Those who reported conflicts were less likely to have mental health conditions (AOR=0.493, 95% CI=0.313–0.777, p=0.002), and this was statistically significant.

CHAPTER FIVE

DISCUSSION

In this study, the mean age of respondents was 35± 6.9 years. About half of the public servants were within the 20–34 age range, followed by those in the 35–44 category, while only about one-tenth of them were 45 years and above. This finding aligns with the expected age distribution of the workforce in the Nigerian public service, who usually enter service in their early to mid-career stages. [85] More than half of the participants were females, while the remainder were males, this could be due to females more willing to participate in the study. This reflects the general trend seen in many modern professional settings in Nigeria, where female representation is increasingly visible across various ministries.[86]

A significant majority of the respondents were married, which is typical for a working-class population in Nigeria where marriage is a culturally significant milestone. Christianity was the predominant religion, with a minority practicing Islam. The largest ethnic group represented were the Benin, followed by Esan, Urhobo, and others. This distribution is unsurprising and consistent with the study's location in Benin City, the capital of Edo State, where the Benin ethnic group is indigenous.[87]

The educational level of the respondents was notably high, with over three-quarters holding either a Bachelor's degree or a Master's degree. This high level of education is a critical factor in health literacy, as it suggests the workforce has a strong capacity to understand health-related information and participate in mental health interventions, this high literacy is also as a result of the socio-demographic area being predominantly occupied by graduates.[87]. Most respondents were drawn from various ministries, with the Ministry of Health being a key segment. The finding that most respondents have worked for 1 to 5 years indicates a relatively young

workforce in terms of professional tenure is indicative of high work place recruitment in the state in recent time. which may influence their exposure to workplace stressors and their perceptions of mental health.[88]

This study demonstrated a remarkably high level of awareness of mental health among public servants in Edo State, with nearly all respondents reporting familiarity with the term. Social media emerged as the leading source of information, accounting for a substantial majority of responses, while traditional media such as television and radio also contributed prominently. Health workers served as an important but less dominant source of information, whereas interpersonal channels like family and friends, as well as print media such as newspapers, played comparatively smaller roles.

The very high level of awareness observed in this study may be due to the increasing global and national conversations about mental health, which have gradually become more common in Nigeria's professional environment. The prominence of social media as a main source of information is likely linked to the relatively high literacy levels and urban lifestyle of public servants in Edo State, who regularly use digital platforms. In addition, the strong role of television and radio shows that traditional media still remains an important and effective means of sharing health information among workers in this setting.

These findings from this study are consistent with previous studies conducted among civil servants in Southern Nigeria, which also reported that 97% show awareness of mental health. The observed reliance on digital platforms as major sources of information aligns with research from Lagos, where social media was identified as the leading channel for health information among professionals, surpassing traditional media outlets.[88]

In contrast, studies from rural areas in Northern Nigeria have reported different patterns of information dissemination, with community leaders and religious gatherings serving as the primary sources of health awareness rather than digital or mass media. This variation highlights the influence of factors such as urbanization, educational level, and occupational status on how individual access and engage with health information.[89]

The high level of awareness among public servants is significant as it represents the critical first step in the "Hierarchy of Effects" model for behavioral change. Having a workforce that is already familiar with mental health concepts provides a strong foundation for more complex interventions, such as workplace wellness policies and anti-stigma campaigns. Public servants in Edo State already have a good understanding of mental health. Because of this, they are more open to mental health programs and policies, and less likely to resist them. It also means they are ready to move from just knowing about mental health to actually supporting and promoting it. Understanding mental health is important because it helps people decide to seek help and accept mental health policies. When people know more about it, they are less likely to stigmatize others and are more accepting of those with mental health problems.[90]

Edo State Ministry of Health should leverage the high digital engagement of the workforce by launching verified social media campaigns and infographics focused on workplace mental wellness. Additionally, the state government should strengthen "Health Talk" segments on local radio stations to reinforce these messages. These efforts should focus on bridging the gap between general awareness and positive health-seeking behavior, ensuring that public servants not only know about mental health but also know how to access professional support.

This study revealed that slightly above half of Edo state public servants have good knowledge about mental health, with the majority of public servants that have good knowledge being

females compared to their male counterparts. Educational attainment emerged as a strong influencing factor, with knowledge levels increasing progressively with higher qualifications and reaching complete coverage among those with doctoral-level education. Professional affiliation was also an important determinant. Respondents working within the Ministries of Health and Education demonstrated substantially better knowledge compared to those in the Ministry of Budget, Planning, and Economic Development, indicating that staff in the Ministry of Health had markedly higher odds—by more than tenfold—of possessing good mental health knowledge compared to their counterparts in other ministries. In addition individuals in higher administrative positions, such as those within the Directorate cadre, exhibited stronger understanding than those in junior ranks.

The good knowledge among the general workforce may be attributed to the urbanized nature of Edo State's public service and the increasing integration of mental health awareness into the Nigerian professional sphere. The better knowledge found in females may stem from a higher cross-cultural tendency for women to engage with health-related information and social support systems. For those in the Health and Education ministries, the "professional exposure" factor is likely the cause, as their daily roles and specialized curricula frequently overlap with psychological and behavioral health concepts. Furthermore, the increased knowledge among senior directorate staff and those working longer hours (>8 hours) may be due to their involvement in high-level administrative decision-making, which often requires a deeper understanding of human resource management and employee well-being.

This findings from this study is in contrast to a 2021 study in Lagos state[91] involving urban professionals, including civil servants, found that while general awareness of mental health was nearly universal at 95.5%, over half of the respondents possessed poor functional knowledge

regarding the specific causes and symptoms of disorders. Similarly, a 2024 study in Enugu State[92] among civil servants reported that while a majority could identify indicators of emotional health problems like depression (66.3%) and anxiety (61.4%), there remained a significant gap in translating this recognition into professional help-seeking behavior. However, these findings contrast with a 2025 study among community health workers in Northern Nigeria[93], where nearly half of the respondents demonstrated inadequate mental health knowledge and a significant majority still attributed mental illness to supernatural causes, highlighting how professional roles and regional contexts drastically influence mental health literacy levels.

The public health significance of having a majority of the workforce demonstrate good knowledge is that it creates a fertile environment for workplace wellness policies. Higher levels of mental health knowledge help reduce stigma and make people more likely to get help early. However, there are still gaps in knowledge, especially among male workers and junior staff. If these groups are not well informed, they may not support a healthy work environment. This could result in unnoticed burnout, anxiety, and lower productivity in the civil service.[92]

Based on these findings, it is recommended that the Edo State Government transition from general awareness to targeted, department-specific mental health training. The Ministry of Health should lead peer-to-peer mentorship programs to transfer their high knowledge levels to more technical ministries like Transport and Science. Additionally, mental health modules should be integrated into the mandatory induction and promotion exams for all cadres to ensure that knowledge is standardized across all ranks. Finally, gender-specific outreach is necessary to boost knowledge among male civil servants, ensuring they are equally equipped to recognize and manage mental health issues.

This study also show that over two-third of public servants show positive attitude towards mental health status. High social economic status and educational level emerged as a key determinant, with more educated respondents generally showing more positive attitudes, while those with the least formal education demonstrated the poorest outlook. This suggests that education not only improves knowledge but may also shape perceptions and reduce stigma.

Workers in data and information technology roles generally showed more positive attitudes. However, healthcare workers showed an unexpected trend, which may be linked to job stress, burnout, or emotional desensitization from constant exposure to health-related challenges. In contrast, those in management and administrative positions were less likely to have positive attitudes. This suggests that higher responsibilities and workplace pressure may negatively affect how they perceive mental health. Work intensity also influenced attitudes. Interestingly, people who worked longer hours were more likely to have positive attitudes. This may be because they are more exposed to workplace discussions, coping strategies, or support systems related to mental health.

Income level also showed an effect, but not in a straightforward way. Surprisingly, individuals in the highest income group were more likely to have negative attitudes toward mental health. This suggests that higher earnings do not necessarily improve attitudes and may instead be linked to greater job demands or stigma within higher professional ranks. The strong link between higher education and positive attitudes is likely due to the acquisition of scientific literacy, which displaces traditional superstitions about mental illness. The exceptionally better attitude among IT professionals and those with long working hours may be due to "shared vulnerability"; these individuals often operate in high-stress digital environments where mental fatigue is a recognized reality, fostering greater empathy for mental health care.

These findings from this study is in contrast to a cross-sectional study done in northern Nigeria to access the attitude of employees towards mental illness, which showed that 53.4% exhibited high levels of stigmatization toward individuals with mental illness. Many public servants harbor fears and misconceptions, with 58.7% endorsing stereotypes of "dangerousness" and 41.5% of community health workers viewing psychiatric patients as dangerous.[94]

The public health importance of these findings highlight key attitude-related barriers within the state's administrative system. Since management-level staff are responsible for staff welfare and approving leave, their less positive attitudes can create a major obstacle to supporting employees with mental health needs. In addition, the finding that higher-level staff tend to have more negative attitudes suggests that those with the most influence in the public service may be the least supportive of mental health policies. This could slow down or limit the effective implementation of mental health programs, even though general awareness is already high.

Based on these findings, it is recommended that the Edo State Government implement "Sensitization for Leadership" workshops, specifically targeting management and administrative cadres to dismantle workplace stigma towards mental health. Ministries with high IT and data concentrations should be used as models for "Supportive Work Cultures," where their high levels of empathy are institutionalized into peer-support frameworks. Additionally, the Ministry of Health must address the negative attitude observed within its own ranks by integrating "Mental Health for the Caregiver" modules into professional development, ensuring that those in the health sector are the primary advocates for, rather than barriers to, mental wellness.

This study found that the majority of public servants in Edo State had depression scores within the normal range. However, about one-third of the respondents showed signs of depression, with about one- quarter having severe to extremely severe depression and three-quarter having mild to

moderate depression. The most common emotional symptom reported was feeling down or having a persistently low mood. This was followed by a feeling that life has no meaning, showing that some respondents were experiencing deeper emotional distress.

This may be linked to the escalating socio-economic pressures currently facing workers in Nigeria, including high inflation and the rising cost of living which strain household stability. Furthermore, the reported feelings of "meaninglessness" may reflect broader job dissatisfaction or the repetitive nature of administrative tasks, which can culminate in emotional exhaustion and a diminished sense of professional purpose over time.

These findings from this study is in contrast to a 2022 comprehensive cross-sectional studies done in Egypt which showed a prevalence of 43.4% to 43.5% depressive symptom among public servants. The prevalence was higher in females (52.9%) compared to males (33.4%) with key factors being high job demands, low job control (especially for women), and a history of previous depression.[95]

The identification of severe and extremely severe depression within the workforce, even at a combined level of a small minority, carries important public health implications. Individuals in these categories are at increased risk of suicidal ideation as well as marked functional impairment, making early recognition and support critical. In the workplace context, depression is also a major contributor to presenteeism, where employees remain physically present but are unable to function optimally. This not only reduces individual productivity but can also translate into broader economic losses and a decline in the overall quality of public service delivery. If left unaddressed, these cases may therefore affect both the well-being of affected individuals and the efficiency of institutions in which they work.[95]

The Edo State government should institutionalize regular mental health screenings as a mandatory component of annual staff medical check-ups to facilitate early detection. Additionally, the state should establish a comprehensive Employee Assistance Program (EAP) that provides confidential, professional counseling services. Such a program would offer a vital lifeline for the workforce currently struggling, preventing mild psychological distress from escalating into severe clinical depression and fostering a more resilient public service and facilitate good health seeking behavior among workers

This studies shows that the majority of Edo state public servants have normal anxiety levels, however nearly one-quarter of them reported moderate to extremely severe anxiety, with the likelihood of experiencing anxiety increasing progressively with advancing age. Educational level also played a role, as respondents with lower levels of formal education tended to report higher levels of anxiety compared to those with more advanced qualifications. Work-related factors showed particularly strong associations. Certain job roles appeared to carry a much higher risk, with respondents in healthcare and other specialized roles being significantly more likely to experience anxiety compared to those in information technology–related positions. This may reflect the demanding nature of these roles, including higher responsibility, workload, and exposure to stressful situations.

Interestingly, working within the Ministry of Health was associated with a lower likelihood of anxiety, suggesting that increased access to health information, training, or support systems within that environment may offer some protective effect. Similarly, respondents who demonstrated a positive attitude toward mental health were less likely to experience anxiety, highlighting the potential role of perception and awareness in influencing mental well-being. Most notably respondents who reported depressive symptoms were far more likely to also

experience anxiety, underscoring the close relationship between these two conditions and the need for integrated approaches to mental health care within the workplace. The strong link between increasing age and higher anxiety may be attributed to the cumulative effect of professional responsibilities and the increasing pressure of managing both senior workplace roles and complex family demands.

The exceptionally high odds of anxiety among healthcare and specialized workers likely stem from the high-stakes, high-stress nature of their daily tasks, where errors can have critical consequences. The massive correlation between depression and anxiety known as ‘’comorbidity’’ suggests that for many public servants, psychological distress is not isolated; rather, the emotional exhaustion of depression likely lowers the threshold for an anxiety response, creating a cycle of persistent mental strain. Conversely, a positive attitude and working within the Ministry of Health may provide better protective "health literacy," allowing these individuals to recognize stress triggers earlier and employ better coping mechanisms.

These findings from this study is in contrast to a 2022 study published in the South African Journal of Psychiatry which showed that 93.4% of 588 essential workers in Ekiti State, Nigeria, reported symptoms of anxiety during the COVID-19 pandemic, with higher prevalence among healthcare workers (96.5%) compared to non-health workers (84.6%). Key risk factors identified included fear of infection, lack of government support, and being aged 35 or younger.[96]

The public health significance of these findings lies in the discovery that anxiety is highly "clustered" within specific professional groups and is deeply intertwined with depression. The extremely high odds ratios found for healthcare and specialized roles indicate that this sector may be exposed to stress that could lead to widespread burnout and systemic failure of essential services. Furthermore, the fact that a positive attitude significantly reduces anxiety suggests that

mental health education is not just a "nice-to-have" but is a functional tool that directly protects the workforce from developing clinical disorders.[58]

Based on these findings, it is recommended that the Edo State Government prioritize "High-Risk Ministry Interventions," particularly for those in healthcare and specialized technical roles, through mandatory stress-anxiety- burnout workshops. Given the high comorbidity between depression and anxiety, screening programs must be "dual-focused" to catch both conditions simultaneously. The state should also leverage the protective power of a "Positive Attitude" by launching a service-wide mental health literacy campaign to build psychological resilience. Finally, for older staff members, the introduction of "Senior Wellness Seminars" focusing on delegating responsibility and managing executive stress could help mitigate the age-related increase in anxiety identified in this study.

This study showed that majority of Edo state public servants maintained healthy levels of stress, with over nine-tenths of the group falling into normal category. Marital status appeared to play a role, with individuals who had never been married showing higher levels of stress compared to those who were married, suggesting that social and emotional support systems may offer some protection against stress. Educational level was also strongly associated with stress, as respondents with lower levels of formal education reported higher levels of stress compared to those with more advanced qualifications. This may reflect differences in coping capacity, job opportunities, or access to resources.

Work-related factors showed clear variations across job roles. Respondents in specialized, technical, and engineering roles tended to experience higher levels of stress, likely due to the demanding and often high-responsibility nature of these positions. Interestingly, work intensity demonstrated a somewhat unexpected pattern, with those working longer hours being less likely

to fall within the stressed category. This may reflect adaptation to job demands, differences in job structure, or the possibility that those working longer hours occupy roles with greater autonomy or job satisfaction. Most importantly, the presence of other mental health conditions emerged as a very strong predictor of stress. Respondents experiencing depression were significantly more likely to also report stress, while those with anxiety showed an even stronger association. This highlights the close interplay between stress, anxiety, and depression, and underscores the need for a comprehensive and integrated approach to mental health within the workplace.

The findings from this study that never-married individuals and those with lower educational qualifications experience higher stress may be due to a lack of "social and cognitive buffers." Married individuals often benefit from domestic support systems that help mitigate workplace pressure, while higher education typically equips a person with better problem-solving and organizational skills to navigate bureaucratic demands. The extremely high odds ratios associated with depression and anxiety (comorbidity) suggest that stress is rarely an isolated phenomenon in the civil service; rather, it often acts as the "physiological floor" for more severe mental health conditions. Interestingly, the lower odds of stress among those working longer hours might suggest a "productivity paradox," where those who stay longer feel more in control of their workload, thereby reducing the acute stress of unfinished tasks.

This is in contrast to a 2022 cross-sectional study done in Sokoto, Nigeria, among 318 public servants which showed that the 62.5% of the workers experienced moderate to high stress levels. Stress was notably higher among junior cadre staff (Grade Levels 01–06) compared to senior staff, largely due to financial insecurity. Female staff reported higher "home-work interface" stress than their male counterparts.[97]

The public health significance of these findings lies in the clear concentration of stress within technical and specialized roles. Individuals in these positions are often responsible for critical infrastructure and essential services, and the high levels of stress observed in this group raise concerns about the potential for what may be described as institutional burnout. In such situations, prolonged stress can lead to reduced efficiency, increased risk of human error, and higher rates of absenteeism, ultimately affecting the delivery of key public services.

In addition, the close relationship between stress, depression, and anxiety suggests the presence of a compounded mental health burden within the workforce. Stress not only contributes to the development of these conditions but is also reinforced by them, creating a cycle that can be difficult to break. This highlights the need for an integrated approach to mental health care in the public sector, rather than addressing each condition in isolation..[97]

Based on these findings, it is recommended that the Edo State Government implement "Role-Specific Stress Management" programs, particularly for technical and engineering staff. Since lower-educated staff are at higher risk, mental health sensitization materials should be simplified and made accessible to all cadres. Given the strong link between stress and existing anxiety/depression, the state should adopt a "Triple-Screen" approach in its employee wellness checks to catch all three conditions simultaneously. Finally, the government should evaluate workload distribution to ensure that the "intolerance of interruptions" noted in the findings is managed through better task allocation, helping to prevent mild occupational stress from escalating into severe clinical anxiety or depression.

This study shows that over two-third of the Edo state public servants have good mental health status. Identifying several important sociodemographic and professional factors associated with the overall mental health status of public servants in Edo State, religious affiliation emerged as a

significant predictor, with noticeable differences observed across groups, suggesting that cultural, social, and contextual factors may influence mental health outcomes and coping mechanisms. Educational level also played a role, as respondents with lower levels of formal education were more likely to have poorer mental health compared to those with higher qualifications. This finding reinforces the broader pattern observed in this study, where education appears to shape not only knowledge and attitudes but also overall mental well-being.

Work-related factors showed particularly strong associations. Healthcare workers, as well as those in logistics, procurement, and technical or engineering roles, were more ten times more likely likely to experience poorer mental health outcomes to other job roles. This may reflect the demanding nature of these roles, including workload, responsibility, and exposure to stressful or high-pressure environments. On the other hand, having a positive attitude toward mental health emerged as a strong protective factor, with such individuals being far less likely to have poor mental health status. This highlights the importance of awareness, perception, and openness in promoting psychological well-being. In addition, longer work experience appeared to offer some protection, as more experienced staff were less likely to report poor mental health. This may be due to better coping strategies, greater job familiarity, or increased stability over time.

The higher odds of poor mental health among technical, engineering, and healthcare workers likely stem from the "high-stakes" nature of their roles, where physical exhaustion and the pressure of precision combine to create chronic psychological strain. The protective effect of having more than five years of experience suggests a "survivor resilience" effect, where seasoned employees have developed superior organizational navigation skills and emotional buffers compared to newer recruits. The significant association between a positive attitude and good mental health status suggests that "psychological literacy" allows individuals to seek help earlier

or utilize better self-care strategies, preventing minor stress from deteriorating into a "Poor" overall status.

This findings is in contrast with a 2022 cross sectional study done in Ekiti among public servants, including health workers and administrative staff in essential services which showed that 64.3%, 93.4% and 62.4% of respondents showed depressive, anxiety and stress symptoms. Being younger (under 35) and perceiving a lack of government support were the biggest predictors of all three conditions[98]

The public health significance of these findings points to the presence of a clear “resilience gap” within the civil service. A substantial proportion of staff in technical, engineering, and logistics roles were found to have poor mental health indicators, raising concern about the stability of key sectors responsible for infrastructure and supply chain management. These roles are critical to the functioning of the state, and reduced psychological well-being within this group may have wider operational consequences. When a considerable segment of the workforce is functioning with poor mental health, the cumulative effects can be far-reaching. Reduced concentration, impaired decision-making, and increased presenteeism—where employees are physically present but not fully productive—can contribute to institutional inefficiencies. Over time, this may also place additional strain on the healthcare system, as unresolved psychological distress begins to manifest in physical health problems. Overall, these findings highlight the need to strengthen mental health support systems within the public sector, particularly for high-risk occupational groups, in order to maintain both workforce well-being and institutional effectiveness.[98]

Based on these findings, it is recommended that the Edo State Government institutionalize a "Resilience Mentorship Scheme," where employees with over five years of experience are trained to support newer recruits in high-stress roles. Given the high risk in technical and

healthcare sectors, these departments should be the first to receive "Mental Health First Aid" training for supervisors. Edo state should also launch a service-wide campaign to promote a "good mental health," as this study proves it is a statistically significant shield against poor mental health. Finally, the Civil Service Commission should conduct a "Role-Audit" for technical and logistics cadres to ensure that work demands are balanced with adequate rest periods, directly addressing the professional triggers identified in this study.

This study identified several key workplace factors that influence the mental well-being of public servants in Edo State. High workload and excessive job demands emerged as important contributors, with individuals facing heavier work pressures being more likely to experience mental health challenges. Similarly, time pressure and tight deadlines were associated with increased psychological distress, highlighting the impact of demanding work schedules on overall well-being.

It was found that long working hours/inadequate rest, effort not matched by rewards, colleagues' attitudes or behaviour, and financial difficulties/inadequate income were significantly associated with depression among public servants. Long working hours and inadequate rest may contribute to emotional exhaustion, chronic stress, and poor recovery, thereby increasing vulnerability to depressive symptoms. Similarly, employees who perceive that their efforts are not adequately rewarded may experience frustration, dissatisfaction, and reduced motivation, which can negatively affect mental well-being.

The significant association between colleagues' attitudes or behaviour and depression highlights the importance of a supportive work environment. Negative interpersonal interactions in the workplace may contribute to emotional strain and reduced psychological well-being. Financial

difficulties or inadequate income were also significantly associated with depression, possibly due to the stress and insecurity associated with economic challenges.

In contrast, high workload, time pressure, inadequate institutional support, lack of workplace mental health policies, fear of stigma, and conflicts with supervisors or coworkers were not significantly associated with depression in this study. This may suggest that personal financial strain and immediate workplace relationships exert a stronger influence on depressive symptoms than broader organizational or workload-related factors within this population.

Findings from this study identified effort not matched by rewards and inadequate institutional support as significant predictors of anxiety among respondents. Respondents who perceived that their efforts were not adequately rewarded were more likely to experience anxiety, possibly due to feelings of dissatisfaction, frustration, and reduced motivation in the workplace. Similarly, inadequate institutional support may contribute to anxiety by creating a sense of insecurity and limited access to resources needed to cope with occupational stress.

Interestingly, high workload/excessive job demands showed a statistically significant relationship with anxiety in the regression model, although the adjusted odds ratio suggested a lower likelihood of anxiety after controlling for other factors. This may reflect the influence of confounding variables or differences in individual coping mechanisms among respondents. Other factors, including time pressure, long working hours, lack of workplace mental health policies, fear of stigma, colleagues' attitudes, conflicts with supervisors or coworkers, and financial difficulties, were not significant predictors of anxiety in the adjusted analysis. This suggests that perceived organizational support and reward systems may play a more important role in influencing anxiety among public servants than interpersonal or external stressors.

This study highlight that high workload or excessive job demands, effort not matched by rewards, and inadequate institutional support were significant predictors of stress among respondents. The strong association between workload and stress underscores the role of occupational burnout as a key driver of psychological strain within the civil service. When employees face persistent mismatches between task volume and available time, the resulting pressure can lead to sustained physiological and emotional exhaustion, manifesting as anxiety, irritability, and reduced job satisfaction. This finding aligns with established models of job strain, which emphasize that excessive demands coupled with limited recovery opportunities contribute directly to mental fatigue and stress-related outcomes.

The significant relationship between effort–reward imbalance and stress further illustrates the psychological impact of perceived inequity in the workplace. When employees feel that their contributions are undervalued or inadequately compensated, it can erode motivation and foster feelings of frustration and helplessness. Similarly, inadequate institutional support was associated with higher stress levels, suggesting that organizational structures and leadership responsiveness play a crucial role in buffering employees against occupational stress. A lack of supportive policies or resources may leave workers feeling isolated and powerless, amplifying the effects of other job-related pressures. Overall, the findings suggest that organizational and structural factors—particularly workload intensity, perceived fairness, and institutional support—are the most salient determinants of stress among civil servants. Interventions aimed at improving workload management, enhancing recognition systems, and strengthening institutional support frameworks could therefore have a meaningful impact on employee well-being and productivity.

Workplace conflicts with supervisors or colleagues were associated with a higher likelihood of reported mental health conditions. This finding may reflect the psychological strain that arises from tense workplace relationships, poor communication, reduced social support, and a stressful work environment, all of which can negatively affect emotional well-being. Persistent interpersonal conflict in the workplace can contribute to feelings of anxiety, frustration, reduced job satisfaction, and emotional exhaustion, thereby increasing vulnerability to mental health problems. Other factors, including perceived inadequate rewards for effort, negative behaviors from colleagues, and personal or family-related issues, did not show a significant association with mental health outcomes in this analysis. This suggests that, within this context, direct workplace interactions and day-to-day relational stressors may have a more immediate influence on mental well-being than external or less persistent stress factors.

The significant association between high workload, tight deadlines, and poor mental health suggests that occupational burnout is a major driver of psychological distress within the civil service. When employees are consistently faced with a mismatch between the volume of tasks and the time available to complete them, this can lead to sustained physiological and psychological strain, which may present as the anxiety and stress symptoms observed in this study. Interestingly, the finding that workplace conflicts were associated with a lower likelihood of reported mental health problems requires careful interpretation. One possible explanation is that individuals who acknowledge and address conflicts may be more proactive in managing workplace challenges, either by resolving issues directly or seeking support. In contrast, those who internalize stress related to workload and time pressure may be less likely to express or address their difficulties, potentially leading to greater psychological burden.

These findings from this study is similar to a cross-sectional quantitative survey of 289 public service employees in the Eastern Cape which Investigated how organizational climate and decent work affect mental health, this showed that Decent work (safety, fair pay, balance) fully mediates the positive relationship between a good organizational climate and employee mental health. Additionally, factors like workload and support significantly impact mental health, explaining a notable portion of the variance. [99]

The public health significance of these findings is that it move the focus from individual pathology to "systemic institutional stressors." If nearly 200\% higher odds of mental distress are linked to workload and deadlines, then the mental health crisis in the public service cannot be solved by clinical treatment alone. It necessitates a structural intervention to access how work is assigned and managed. Unchecked, these institutional stressors will lead to "organizational decay," characterized by high error rates in public policy execution and a steady decline in the health-related quality of life for the state's workforce.[99]

Based on these findings, it is recommended that the Edo State Government conduct an "Institutional Workload Audit" to identify departments where job demands consistently exceed human capacity. Departmental heads should implement "Agile Deadline Management" to reduce the acute time pressure that currently doubles the risk of mental illness among staff. Furthermore, the Civil Service Commission should introduce mandatory training in "Conflict Resolution and Assertive Communication" to leverage the protective effect noted in individuals who actively navigate interpersonal workplace challenges. Finally, the government should prioritize "Outcome-Based Performance" over "Presence-Based Performance" to allow employees more flexibility in managing their time, directly mitigating the deadline-related stress identified in this study.

CONCLUSION

Nearly all public servants demonstrated a high level of awareness of mental health, with social media and mass media serving as major sources of information. Despite this widespread awareness, important gaps remain in deeper clinical understanding, particularly among lower-educated cadres, with educational level emerging as a key determinant of knowledge.

Over three-fifths of the public servants demonstrated good knowledge of mental health and mental health conditions, indicating a relatively positive level of awareness and understanding of mental well-being among the study population

Two-thirds of public servants expressed positive attitudes toward mental health, valuing well-being and showing openness to mental health issues. However, a notable minority especially among those in management positions and higher social economic status held more stigmatizing views, which may limit open discussion and weaken workplace support systems. Factors such as education, job role, and level of knowledge played important roles in shaping these attitudes.

Over one-fourth of public servants were found to have poor overall mental health status. This burden was driven mainly by anxiety and depression, while stress was comparatively less prevalent.

Several factors were identified as influencing these outcomes, including job role, sector, level of responsibility, and mental health literacy. Public servants in conflict with their supervisors and high work load were more likely to experience psychological distress. Limited prior exposure to mental health education further increased vulnerability, emphasizing the need for targeted interventions within high-risk groups.

RECOMMENDATIONS

Recommendations to the Edo State Government

1. The government should institutionalize and enforce a comprehensive State Workplace Mental Health Policy to guide the protection and promotion of employees' psychological well-being.
2. Mandatory annual mental health screenings should be incorporated into routine civil service medical check-ups to enable early detection and management of conditions such as depression and anxiety.
3. Collaboration with relevant health agencies is needed to establish an Employee Assistance Program (EAP) that provides confidential counseling and psychological support, particularly for staff in high-stress ministries.

Recommendations to the Civil Service Commission

1. Mental health literacy and stress management training should be integrated into the orientation programs for all newly recruited public servants.
2. Targeted training should be provided for departmental heads and supervisors to enable early identification of burnout, stress, and emotional exhaustion among staff.
3. Ministries should be encouraged to implement and enforce policies that promote healthy work–life balance, including the proper utilization of annual leave to reduce workload-related stress.

Recommendations to the Ministry of Health

1. The ministry should develop accessible digital mental health resources, including mobile-based tools, to support self-management of anxiety, stress, and depression among public servants.
2. A structured peer-support network should be established within high-risk ministries (such as health, education, security, and technical sectors) to encourage shared coping strategies and reduce stigma.

Recommendations to Individual Public Servants

1. Public servants should establish clear boundaries between work and personal life to minimize the long-term effects of occupational stress.
2. Individuals should practice mindful awareness of stress triggers, with early help-seeking behavior when experiencing persistent low mood, anxiety, or emotional exhaustion.
3. Prompt consultation with qualified mental health professionals is essential when symptoms of severe depression, anxiety, or suicidal thoughts arise.
4. Employees should foster a supportive work environment by encouraging healthy work habits and sharing mental health resources, thereby reducing stigma within the workplace.

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APPENDIX I

DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE
UNIVERSITY OF BENIN, BENIN CITY

KNOWLEDGE, ATTITUDE, PREVALENCE, AND FACTORS INFLUENCING MENTAL HEALTH STATUS AMONG PUBLIC SERVANTS

Dear Respondent,

I am a 600-level medical student of the University of Benin conducting a research project to evaluate the **knowledge, attitude, prevalence, and factors influencing mental health status among public servants in Benin city, Edo state.**

Kindly complete this questionnaire. Your responses will be treated with **strict confidentiality** and will be used solely for academic purposes.

Thank you for your cooperation.

SECTION A: SOCIO-DEMOGRAPHIC INFORMATION

1. **Age (in years):** _____
2. **Sex:** Male ( ) Female ( )
3. **Religion:** Christianity ( ) Islam ( ) African Traditional Religion ( ) Others (Specify) _____
4. **Ethnic group:** Benin ( ) Esan ( ) Etsako ( ) Igbo ( ) Yoruba ( ) Urhobo ( ) Others (Specify) _____
5. **Marital Status:** Single ( ) Married ( ) Widowed ( ) Cohabiting ( )Divorced (Separated ( )
6. **Occupation** _____
7. **Years of Work Experience:** _____
8. **Highest Educational Qualification:** Secondary school ( ) Diploma ( ) Bachelor's degree ( ) Postgraduate diploma ( ) Master's degree ( ) Doctorate(PhD) ( )
9. **Department /Ministry /Unit:** _____
10. **Staff Rank / Level:** Junior staff (level 1-6) ( ) Senior staff(level 7-12) ( ) Directorate senior cadre ( )
11. **Average work hours per day:** _____
12. **Average Monthly Income (₦):** < 70,000 ( ) 70,000 – 199,999 ( ) 200,000 – 299,999 ( ) 300,000 – 399,999 ( ) ≥ 400,000 ( )

SECTION B: KNOWLEDGE OF MENTAL HEALTH AND MENTAL HEALTH DISORDERS

13. Have you heard of mental health or mental health disorders before? (a) Yes ( ) (b) No ( ) *If No, skip to Section C*

14. If Yes, what is your source of information? *(Select all that apply)* (a) Television/Radio ( ) (b) Social media ( ) (c) Workplace trainings/seminars ( ) (d) Health professionals ( ) (e) School/academic materials ( ) (f) Friends or colleagues ( ) (g) Others (Specify) _____ (MRQ)

15. Mental health refers to *(Single response question)*: (a) A person's emotional, psychological, and social well-being ( ) (b) Absence of physical illness only ( ) (c) Permanent mental illness ( ) (d) Ability to work without stress ( )

16. Mental health disorders are conditions that *(Single response question)*: (a) Affect thinking, mood, behavior, or functioning ( ) (b) Occur only in childhood ( ) (c) Are always caused by spiritual factors ( ) (d) Cannot be treated or managed ( )

17. Which of the following are common mental health disorders? *(Select all that apply)* (a)Depression ( ) (b) Anxiety disorders ( ) (c) Substance use disorders ( ) (d) Hypertension ( ) (e) Stress-related disorders ( ) (f) Diabetes mellitus ( )

18. Which of the following symptoms may indicate poor mental health? *(Select all that apply)* (a) Persistent sadness or low mood ( ) (b) Excessive worry or fear ( ) (c) Difficulty sleeping or concentrating ( ) (d) Increased productivity at all times ( ) (e) Loss of interest in daily activities ( )

19. Mental health problems can affect work performance by *(Single response question)*: (a) Reducing productivity and efficiency ( ) (b) Improving concentration at all times ( ) (c)Eliminating workplace stress ( ) (d) Having no effect on work output ( )

20. Early recognition of mental health problems is important because it *(Single response question)*: (a) Allows timely support and treatment ( ) (b) Makes the condition worse ( ) (c) Is unnecessary for adults ( ) (d) Leads to job termination ( )

21. Mental health disorders are best managed through *(Single response question)*: (a) Professional care, social support, and coping strategies ( ) (b) Ignoring symptoms ( ) (c) Isolation from others ( ) (d) Punishment at the workplace ( )

SECTION C: ATTITUDE TOWARDS MENTAL HEALTH AND MENTAL HEALTH CARE

Please pick one answer per row where:

SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

S/N	STATEMENT	SA	A	N	D	SD
22	Mental health is just as important as physical health.					
23	Mental health problems can significantly affect work performance and productivity					
24	Public servants should feel comfortable discussing mental health issues at the workplace					
25	Seeking professional help for mental health problems is a sign of weakness.					
26	Mental health services should be readily available to public servants.					
27	I would be willing to seek help if I experienced a mental health problem					
28	Workplace mental health support programs can improve employees' well-being					
29	Mental health problems can be successfully treated or managed with proper care.					

SECTION D: PREVALENCE OF MENTAL HEALTH PROBLEMS AMONG PUBLIC SERVANTS

Instruction: The following statements describe how you may have felt over the past one week.

Please tick (✓) one option that best applies to you.

Where:

0 = Did not apply to me at all

1 = Applied to me to some degree, or some of the time

2 = Applied to me to a considerable degree, or a good part of the time

3 = Applied to me very much, or most of the time

DEPRESSION

S/N	STATEMENT	0	1	2	3
30	I found it hard to experience positive feelings				
31	I felt that I had nothing to look forward to.				
32	I felt down-hearted and depressed.				
33	I felt that life was meaningless				
34	I was unable to become enthusiastic about anything.				
35	I felt I was not worth much as a person.				
36	I could not seem to get any enjoyment out of the things I did.				

ANXIETY

S/N	STATEMENT	0	1	2	3
37	I felt scared without any good reason				
38	I experienced trembling (e.g. in the hands).				
49	I felt close to panic				

40	I was worried about situations in which I might panic or make a fool of myself.				
41	I felt I was about to lose control				
42	I was aware of dryness of my mouth.				
43	I experienced difficulty breathing (e.g. excessive breathing, breathlessness).				

STRESS

S/N	STATEMENT	0	1	2	3
44	I found it difficult to relax				
45	I tended to over-react to situations.				
46	I felt that I was using a lot of nervous energy.				
47	I found myself getting agitated.				
48	I felt intolerant of anything that kept me from getting on with what I was doing.				
49	I felt that I was rather touchy.				
50	I felt stressed or under pressure.				

SECTION E: FACTORS INFLUENCING MENTAL HEALTH STATUS

Instruction: Please tick (✓) the option that best applies to you.
Response options: Yes ( ) No ( )

51. I experience a high workload or excessive job demands in my workplace. Yes ( ) No ( )

52. Time pressure and tight deadlines at work negatively affect my mental well-being. Yes ( ) No ( )

53. Long working hours or inadequate rest periods affect my mental health. Yes ( ) No ( )

54. The effort I put into my work is not adequately matched by rewards (e.g. salary, recognition). Yes ( ) No ( )

55. I feel there is inadequate institutional support for employees experiencing mental health challenges. Yes ( ) No ( )

56. Lack of clear workplace mental health policies affects my willingness to seek help. Yes ( ) No ( )

57. Fear of stigma or discrimination discourages employees from discussing mental health issues at work. Yes ( ) No ( )

58. The attitudes and behaviour of my colleagues influence my mental well-being. Yes ( ) No ( )

59. Conflicts with supervisors or coworkers negatively affect my mental health. Yes ( ) No ( )

60. Financial difficulties or inadequate income contribute to my stress or emotional distress. Yes ( ) No ( )

61. Personal or family-related problems affect my mental health and work performance. Yes ( ) No ( )

APPENDIX II

ETHICAL APPROVAL

HEALTH RESEARCH ETHICS COMMITTEE (HREC)

UNIVERSITY OF BENIN TEACHING HOSPITAL

P.M.B. 1111 BENIN CITY NIGERIA Telephone: 052-600418 Website: ubth.org

CHIEF MEDICAL DIRECTOR Prof. (Mrs) I.N Ize-Iyamu
DIRECTOR OF ADMINISTRATION Jim Uwadie, Esq
CHAIRMAN Prof. (Mrs.) Antoinette N. Ofili

HREC OFFICE:
Committee email: ubthresearchethics@gmail.com
Registration Number:
NHREC-UBTH-HREC/24/12/2022B

PROTOCOL NUMBER: ADM/E 22/A/VOL. VII/1486549127293

PROPOSAL TITLE: "ASSESSING MENTAL HEALTH STATUS AMONG PUBLIC SERVANTS IN PUBLIC SERVICES IN BENIN CITY, EDO STATE"

PRINCIPAL INVESTIGATOR(S): ERHABOR BENEDICT OSARODION

DEPARTMENT/INSTITUTION: DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, SCHOOL OF MEDICINE, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

DATE CONSIDERED: MARCH 3RD, 2026

DECISION OF THE COMMITTEE: APPROVED

THIS APPROVAL DATES 3/03/2026 TO 2/03/2027. IF THERE IS DELAY IN STARTING THE RESEARCH, PLEASE INFORM THE HREC SO THAT THE DATES OF APPROVAL CAN BE ADJUSTED ACCORDINGLY
REMARK:

CHAIRMAN: PROF. (MRS) A.N. OFILI SIGNATURE & DATE 26

UNIVERSITY OF BENIN TEACHING HOSPITAL ETHICS RESEARCH COMMITTEE Sign..... Date..... BENIN CITY P.M.B. 1111

SUPERVISOR (S): PROF A.I. OBI

DECLARATION BY INVESTIGATOR(S):
PROTOCOL NUMBER (please quote in all enquiries)
Note that no participant accrual or activity related to this research may be conducted outside of these dates and **you are to furnish the committee with the research activities at the completion of the study**. All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study. In multiyear research, endeavor to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification.

Signature & Date 3/3/26

EDO STATE MINISTRY OF EDUCATION,
EDUCATION HUB, IYARO
P.M.B. 1058 BENIN CITY, NIGERIA
Email: min.edu@edostate.gov.ng
Hotline: 08182737088

Our Ref: PRS/DF/200/162

6th April, 2026.

The Honorable Commissioner for Health,
Edo State Ministry of Health,
Benin City, Edo State.

Dear Sir/Madam,

RE: REQUEST FOR PERMISSION TO SHARE ACADEMIC QUESTIONNAIRE AMONG PUBLIC SERVANTS IN THE MINISTRY OF HEALTH

1. The Ministry hereby introduces **Erhabor Benedict Osarodion**, a final year student of the Department of Public Health and Community Medicine, University of Benin, who has requested permission to distribute and collect academic questionnaires.

2. The purpose of the questionnaire is to facilitate a study on **'Assessing mental health status among public servants'**. This is in connection with his research project for the award of the MBBS degree. We respectfully request your approval to share these questionnaires among the public servants within your Ministry.

3. We would be grateful for your necessary cooperation and support in ensuring that interested and willing public servants are given the opportunity to participate in this academic research.

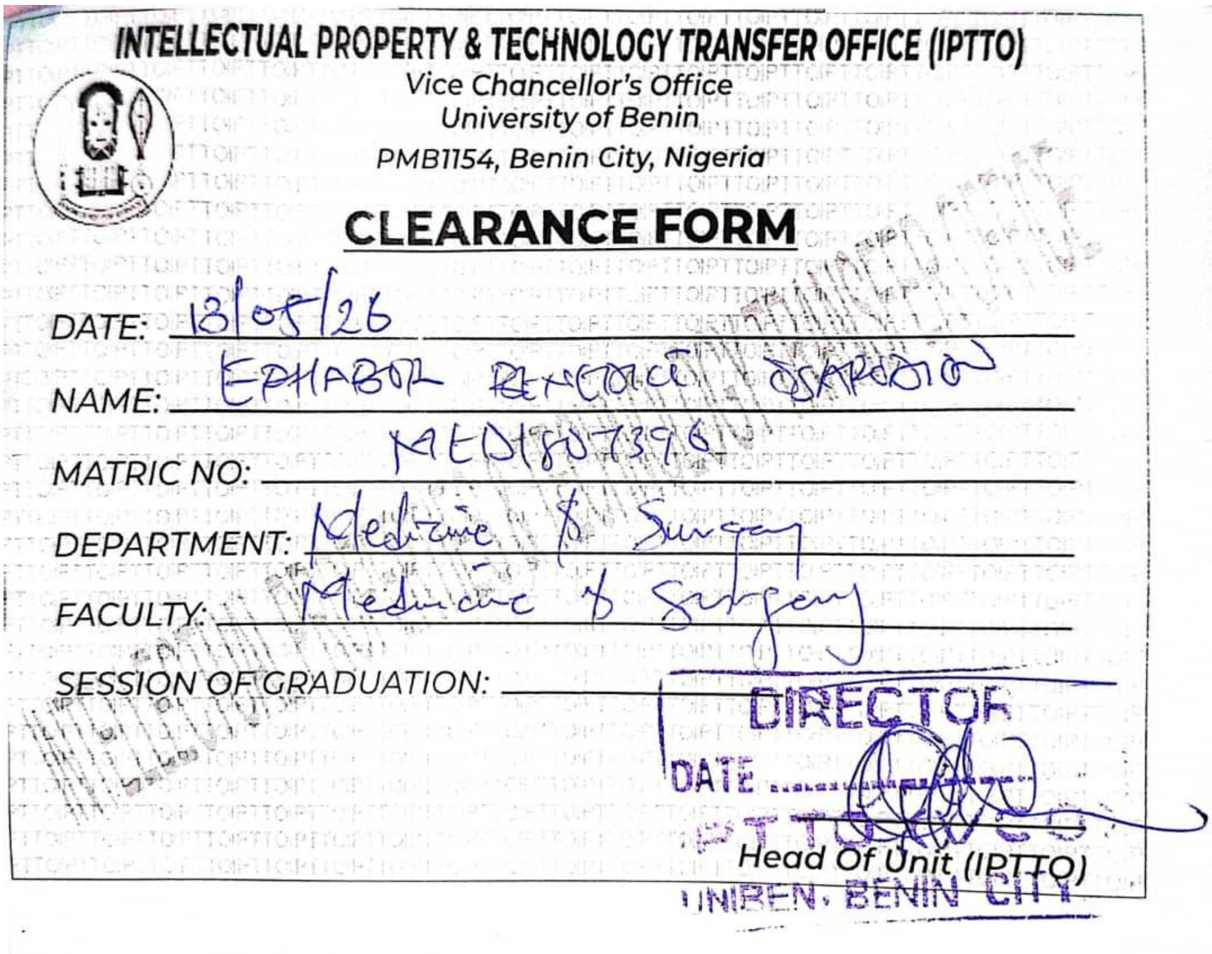
4. Please note that the exercise is strictly for research purposes, and all information collected will be treated with the utmost confidentiality.

5. The Ministry appreciates your usual cooperation. Please accept the assurances of our highest regards.

Orire G. O.
Director, Planning, Research and Statistics
For: Honourable Commissioner for Education.

APPENDIX III

PLAGIARISM TEST RESULT



INTELLECTUAL PROPERTY & TECHNOLOGY TRANSFER OFFICE (IPTTO)

Vice Chancellor's Office
University of Benin
PMB1154, Benin City, Nigeria

CLEARANCE FORM

DATE: 13/05/26

NAME: EPHABOR BENEDICT OSAROBO

MATRIC NO: MED1807396

DEPARTMENT: Medicine & Surgery

FACULTY: Medicine & Surgery

SESSION OF GRADUATION:

DIRECTOR
DATE ....
IPTTO
UNIBEN, BENIN CITY

Head Of Unit (IPTTO)

CS Scanned with CamScanner