ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

SCHOOL OF PSYCHOLOGY

PREVALENCE OF DEPRESSION, ANXIETY, AND STRESS AMONG PEOPLE SEEKING TREATMENT AT AN OUTPATIENT LEVEL AT TIKUR ANBESSA SPECIALIZED HOSPITAL

BY

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Addis Ababa, Ethiopia

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Prevalence of Depression, Anxiety, and Stress among people seeking treatment at an outpatient level at Tikur Anbesa Specialized Hospital.

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Declaration

The researcher hereby declares that the thesis on the title "Prevalence of Depression, Anxiety, and Stress among people seeking treatment at an outpatient level at Tikur Anbesa Specialized Hospital'' is my original work and that all source of materials used for thesis have been properly acknowledged.

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The thesis has been submitted for examination with my approval as a university advisor.

Name of the advisor; Assefa Berihun (PhD)

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Abstract

This study examined the prevalence of depression, anxiety, and stress (DAS) among patients at the outpatient department of Tikur Anbessa Specialized Hospital (TASH) in Addis Ababa, Ethiopia. Mental health issues like DAS are frequently overlooked in outpatient settings, despite their significant impact on patients' well-being and overall health. A cross-sectional survey design was employed to collect data from 294 participants using the DASS-21 scale, a standardized tool for measuring depression, anxiety, and stress. Socio-demographic information, including age, gender, marital status, education level, income, illness duration, and the outpatient department (OPD) they attended, was also collected. The results showed that 65.3% of participants experienced depression, 60.8% anxiety, and 70.1% stress, with 26.5%, 14.6%, and 18.0% classified as extremely severe cases of depression, anxiety, and stress, respectively. Marital status, income level, and OPD department were significant factors affecting DAS levels, with divorced/widowed individuals, those earning less than 5000 Birr per month, and patients from the Oncology department reporting higher levels of mental distress. No significant differences were found based on age or education level. Patients from the Oncology department exhibited significantly higher anxiety and stress levels compared to Internal Medicine patients. These findings highlight the critical need for integrating mental health services into outpatient care settings in Ethiopia. Targeted interventions, especially for divorced/widowed individuals, low-income groups, and high-risk OPD patients, can better address patients' mental health needs and improve outcomes.

Keywords

Depression, Anxiety, Stress and Outpatients

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ACRONYMS AND ABBREVIATIONS

APA: American Psychological Association

COPD: chronic obstructive pulmonary disease

DAS: Depression, Anxiety and Stress

DASS: Depression, Anxiety, Stress Scale

DSM: Diagnosis and Statistical Manual of Mental Disorder

PTSD: Post Traumatic Stress Disorder

SPSS: Statistical Package for Social Science

TASH: Tikur Anbessa Specialized Hospital

TMD: Temporomandibular Disorder

WHO: World Health Organization

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Depression, Anxiety, and stress (DAS) are common mental health disorders that are serious public health concerns across the world. The World Health Organization (WHO) estimates 264 million are affected worldwide by these mental health conditions with depression being the principal cause of disability (World health organization, 2017), where anxiety is the most common mental health disorder that has affected more than 300 million people by 2019 (World Health Organization, 2022). The impact of mental disorders is vast not just for the afflicted individual but also for their families, communities, work situations, and imposing social and economic burden for communities at large (Louis, 2022).

In Ethiopia, mental health disorders are the leading cause of non-communicable diseases with a prevalence that varies across populations(Zergaw et al., 2023). According to WHO'S report an estimate of 8 million people in Ethiopia suffer from depression and anxiety only (Federal Democratic Republic of Ethiopia Ministry of Health, 2012). With more than half a thousand patients seeking treatment from outpatient departments in Ethiopia every day (Arsenault et al., 2021) these figures may not accurately represent the true prevalence, since mental health issues are frequently overlooked. Owing to the bidirectional relationship of mental health problems with physical illnesses, the outpatient department becomes a critical point of contact for patients with mental disorders like DAS.

Tikur Anbessa Specialized Hospital (TASH), located in Addis Ababa, is one of Ethiopia's largest tertiary care centers that receives diverse patient referrals from all over Ethiopia—a large number of patients who might have DAS visit the outpatient level seeking treatment for physical

ailments. However, there is limited research in Ethiopia about the prevalence and severity of these conditions among patients attending this outpatient department.

Despite the recognized importance of mental health, there remains a significant gap in the literature regarding the prevalence and correlation among outpatients in Ethiopian healthcare settings. This study examined the prevalence of DAS among patients seeking treatment at the outpatient department of TASH to understand the burden of mental health in hospital settings. Consequently, it aims to enhance understanding of the mental health landscape in Ethiopia.

1.2 Statement of the problem

Despite the WHO's definition of health as a state of complete physical, mental and social well-being, mental health is often neglected in health systems around the world. Though neglected, mental health together accounts for a huge percentage in the overall disease burden and disability across the globe (World health organization, 2003). Citing the WHO again, about one-quarter of the population around the world today has at least one mental health illness, and it is estimated that depression, anxiety, and stress will be amongst the top causes of disease burden (World health organization, 2017). This problem becomes exacerbated in developing countries where mental health care is still in its infancy.

In Ethiopia, mental health illnesses are one of the leading causes of the disease burden, and according to WHO’s estimate 3.3% and 4.7% of Ethiopians suffer from anxiety and depression, respectively, making these conditions a significant public health concern(Federal Democratic Republic of Ethiopia Ministry of Health, 2016). The national prevalence of depression, anxiety, and stress is similarly high, with studies showing that 29.6%, 31.9%, and 33.7% of the general population, respectively, experience these mental health issues (Salari et al.,

2020). As a result many individuals may be failing to receive the treatment they require in order to retain sound mental health, which in turn affects their quality of life immensely, as well as their effectiveness in contributing as a member of society. For example, patients suffering from chronic conditions such as cancer, heart disease, diabetes, HIV, and tuberculosis may experience worsened outcomes if their mental health needs are not addressed (Federal Democratic Republic of Ethiopia Ministry of Health, 2016). In fact, mental health disorders are known to exacerbate physical health conditions, leading to poorer health outcomes, increased disability, and even premature mortality (Simon et al., 1999). As such, there is an urgent need to explore the prevalence of mental health disorders in outpatient settings to better understand the relationship between mental health and physical health in the Ethiopian context.

A major barrier to addressing mental health issues in Ethiopia is the stigma surrounding mental illness. In many communities, mental health disorders are viewed with bias, and individuals are often reluctant to seek help due to fears of judgment or discrimination. Studies show that stigma significantly reduces the likelihood of individuals seeking treatment, with nearly half of the population refraining from seeking help for mental health issues (Birkie & Anbesaw, 2021).

On the other hand, many patients who do seek care in primary healthcare settings present with somatic symptoms such as headaches, back pain, or gastrointestinal issues, which are commonly associated with mental health conditions like depression and anxiety(Trivedi, 2004). These physical symptoms can complicate diagnosis and often result in patients being treated solely for their physical ailments, without addressing the underlying mental health issues. As a result, untreated they live with mental health disorders can lead to a decreased quality of life.

Ethiopia's healthcare system faces significant challenges in providing adequate mental health care, particularly in tertiary care settings like TASH. While there have been efforts to integrate mental health services into the healthcare system, the availability of mental health professionals remains insufficient. Mental health services are often understaffed, underfunded, and not widely accessible to the general population, especially in rural areas. Additionally, there is a lack of public awareness about the importance of mental health and the availability of mental health services. This knowledge gap contributes to the continued underreporting of mental health issues and a failure to address them in healthcare settings. The absence of a coordinated and holistic approach to healthcare that integrates mental health with physical health treatment is a critical barrier to improving patient outcomes in Ethiopia.

This research aims to address these gaps by examining the prevalence of depression, anxiety, and stress (DAS) among outpatients at TASH. By focusing on this population, the study will provide valuable insights into the mental health challenges faced by individuals already seeking treatment for physical health conditions. Furthermore, it will shed light on how mental health conditions may influence treatment adherence, the management of chronic diseases, and overall health outcomes in a tertiary care setting. Ultimately, this research aims to inform healthcare providers, policymakers, and mental health professionals about the need for an integrated approach to healthcare that addresses both mental and physical health, leading to better outcomes for patients and a more effective healthcare system in Ethiopia.

1.3 Research questions

1. What is the prevalence of Depression, Anxiety, and stress among patients seeking treatment at an outpatient level at Tikur Anbessa Specialized Hospital?

2. What socio-demographic factors (age, sex, marital status; level of education, occupation) and additional variables (including income level and duration of illness) are associated with higher levels of Depression, Anxiety, and Stress among outpatients at Tikur Anbessa Specialized Hospital?

3. How severe are the symptoms of Depression, Anxiety, and Stress among outpatients at Tikur Anbessa Specialized Hospital?

4. Are there significant differences in DAS levels across OPD departments, and do these differences vary by gender?

1.4 Objectives of the study

General Objective:

- ✓ To determine the prevalence of Depression, Anxiety, and Stress among patients seeking outpatient treatment at Tikur Anbessa Specialized Hospital.

Specific Objectives:

1. To assess the prevalence of depression, anxiety and stress among outpatients at Tikur Anbessa Specialized Hospital.

2. To identify the relationships between socio-demographic factors (such as age, sex, marital status, level of education, and occupation) and additional variables (including income level and duration of illness) with the levels of Depression, Anxiety, and Stress among outpatients at Tikur Anbessa Specialized Hospital.

3. To assess the levels (severity) of Depression, Anxiety and Stress among outpatients at Tikur Anbessa Specialized Hospital.

4. To assess differences in Depression, Anxiety, and Stress (DAS) categories across OPD departments and between genders.

1.5 Significance of the study

This study is crucial in highlighting the burden of mental health disorders, specifically Depression, Anxiety, and Stress (DAS) among individuals seeking treatment for physical complaints in tertiary care settings like TASH. In Ethiopia, where mental health awareness remains limited, integrating mental health screening and management into existing healthcare systems is crucial. Addressing both mental and physical health through holistic care models can significantly improve patient outcomes and align with global health standards.

Mental health disorders such as DAS negatively impact health-seeking behaviors, treatment adherence, and the progression of chronic illnesses like cancer, diabetes, HIV, and tuberculosis(Federal Democratic Republic of Ethiopia Ministry of Health, 2016). This research offers valuable data for healthcare providers to support patients more effectively, reduce co-morbid conditions, and enhance care quality. For policymakers, the findings underscore the need for integrated mental health services to address the dual burden of mental and physical illnesses, ensuring more comprehensive healthcare strategies.

Understanding the prevalence of DAS in outpatient departments is crucial for many reasons. Primarily, it can shed light on the needs of mental health among patients. Secondly, it can provide an understanding of the association of mental health disorders with other medical issues, urging integrated treatment approaches. Finally, it can also give insights to policy developers and resource allocation, ultimately improving mental health outcomes in Ethiopia.

1.6 Delimitations of the study

The study only included outpatients from TASH, which may not be representative of patients in other healthcare settings. Patients below the age of 18 are also excluded. Another delimitation is, the research only focused on DAS while excluding other mental illnesses.

1.7 Operational definitions

Depression- a condition marked by sadness, emptiness, hopelessness, and loss of interest for most of the day as measured by DASS depression sub-scale.

Anxiety- is a mental problem related to autonomic arousal, skeletal muscle tension, and situational aspects as measured by DASS anxiety sub-scale.

Stress - refers to the sum of physical, mental, and emotional stress or tension on a person as measured by DASS Stress sub-scale.

Patient: a person that is seeking medical help in health ~~medical~~ facilities and has a card number containing a medical record.

Outpatient: An outpatient is a patient who receives medical care, including diagnosis, treatment, or consultation, at a healthcare facility without being admitted for an overnight stay.

CHAPTER TWO: LITERATURE REVIEW

2.1 Depression

According to the World Health Organization (WHO), depression is a common mental health condition characterized by a persistent low mood, loss of interest or pleasure in activities, and a diminished ability to function. Globally, depression affects approximately 4.3% of the

population, with an estimated 3.8% prevalence across all age group (*Depressive Disorder*, n.d.). Depression contributes significantly to the global burden of disease and is the leading cause of disability worldwide.

In Ethiopia, as in many African countries, the prevalence of depression is notably higher. Studies estimate that 6.8%–9.1% of the population experiences depressive symptoms, with the condition contributing to a significant share of the mental health burden in the country(Bitew, 2014). Factors such as socioeconomic challenges, lack of mental health awareness, and limited access to healthcare services exacerbate the prevalence and impact of depression in Ethiopia.

The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), categorizes depressive disorders into eight distinct types. These categories vary in terms of their duration, timing, and presumed causes. Common symptoms include pervasive feelings of sadness, emptiness, irritability, and associated physical or cognitive changes that impair daily functioning. For instance, major depressive disorder is marked by significant somatic and cognitive dysfunction, while persistent depressive disorder (dysthymia) involves chronic depressive symptoms lasting for two or more years (*Diagnostic and Statistical Manual of Mental Disorders*, 2013). Below, theories attempting to explain depression and the relationship between physical illness and depression is discussed.

2.1.1 Theories of depression

Numerous hypotheses have been put up to explain how depression develops and maintains. The most prominent ones include perspectives from the cognitive, neurochemical, receptor, and learning domains.

Cognitive theories postulated by Beck, Brown & Harris, and Abramson highlight negative thought patterns associated with depression. (Bebbington, 1985) on the contrary,

neurochemical and receptor theories propose deficient neurotransmission in critical brain sites(Nair & Sharma, 1989) while learning theory provides a foundation for understanding depression through behavioral interventions and behavioral activation techniques, focusing on the interchange between behavior and the environment, reinforcement, and aversive control (Ramnerö et al., 2016). These and other theories are discussed in detail below.

Psychoanalytic theories

Psychoanalytic concepts of depression refer to the theoretical discussions and ideas proposed by various psychoanalytic writers regarding the understanding and treatment of depression. Major contributors to this theory include Freud, Abraham, and Mabel Blake Cohen. These concepts aim to explore the underlying psychological factors, unconscious conflicts, and early life experiences that may contribute to the development and maintenance of depression. They also focus on the examination of defense mechanisms like suppression and displacement, as well as the exploration of unresolved childhood traumas and conflicts (Grinker, 1961).

Cognitive theories

The cognitive theories of depression were put forward by Beck and his colleagues, Brown & Harris, and Abramson and her colleagues. These theories aim to explain the cognitive processes and patterns of thinking that contribute to the development and maintenance of depression (Bebbington, 1985). These theories explain depression in terms of distorted and biased thinking patterns, known as the negative cognitive triad, which includes negative thoughts about oneself, the future, and the world(Atherley, 1988).

Beck's model suggests that negative thoughts and beliefs about oneself, the world, and the future contribute to depressive symptoms. On the other hand, Brown & Harris emphasize the importance of social factors, such as adverse life events and lack of social support, in the onset and prognosis of depression (Bebbington, 1985) while Abramson, Seligman, and Teasdale focus

on the interaction between negative cognitive styles and negative life events, suggesting that a negative cognitive style in individuals will more likely to develop depression when faced with negative events(Robins & Block, 1989).

A molecular and cellular theory of depression

This theory of depression suggests stress-induced neuronal changes and altered neurotrophic factors contribute to depression, offering insights for novel therapeutic targets. It postulates stress decreases brain-derived neurotrophic factor expression, potentially leading to atrophy of stress-vulnerable hippocampal neurons, which may be linked to depression (Duman, 1997).

Inflammatory theory of depression

The inflammatory theory of depression suggests that an active inflammatory process in the human body plays a significant role in the onset of depressive disorders. Inflammatory markers such as inflammatory enzymes, proinflammatory and anti-inflammatory cytokines, and oxidative stress are considered to be involved in this process. In addition to the impact on mood, cytokines can also affect cognitive function, leading to reduced efficiency of cognitive functions in individuals with depression (Gałecki & Talarowska, 2018).

Learned-Helplessness Theory of Depression

According to this theory, experiencing failure or negative events can lead to decreased motivation and an increased risk of depression (Scherer, 2022). Studies show that learned helplessness can induce depressed-like behaviors and psychophysiological changes, although there is limited evidence linking it to anhedonia, a core symptom of depression in humans (Song & Vilares, 2021).

Biopsychosocial model of depression

The biopsychosocial model seeks to combine two main perspectives: the biomedical perspective, which focuses on biological factors like brain function, and the psychosocial perspective, which emphasizes the role of life experiences and social context in mental health.(Garcia-Toro & Aguirre, 2007).

The biopsychosocial model in depression has evolved through time, emphasizing the integration of biological, psychological, and social factors in understanding and treating depression. Recent research by Schotte proposes a comprehensive biopsychosocial diathesis-stress model of depression, highlighting the interaction between psychobiological vulnerability and stressors in triggering depressive symptoms(Schotte et al., 2006).

There isn't a single, most accepted theory of depression since the understanding of depression is multifaceted and encompasses various theoretical perspectives. However, each of these theories provides valuable knowledge of the intricate nature of depression. In practice, psychologists often use an integrative approach, combining elements from multiple theories to tailor treatment to the individual's needs.

2.1.2 Depression and physical illness

Several studies indicate a bidirectional relationship between depression and physical illness where individuals with depression were more prone to physical illnesses and vice versa where physical illnesses can increase the likelihood of depression.(Bica et al., 2017; Lobo, 2023). Empirical pieces of evidence indicate that depression coexists with various physical conditions such as cardiovascular disease, chronic obstructive pulmonary disease (COPD), and allergies (Dinesh et al., 2014; Grover et al., 2017).

Some of the mechanisms in which depression causes physical illness and consequently leads patients to general hospitals is through alterations in the hypothalamic-pituitary axis, resulting in excess cortisol and cytokines, which causes impairments in immune function, increased risk of cardiovascular issues, and disruptions in mood and sleep and inflammation-related diseases. Another mechanism is that unhealthy lifestyles which are associated with depression, such as smoking, obesity, and physical inactivity contribute to the development of physical illnesses, patients using antidepressant medications for depression can have physical side effects that may contribute to the development of illnesses additionally as shown in previous researches, the negative emotions, low moods, and lack of social support linked to depression can lead to the onset and progression of cardiovascular risk factors and diseases (Bica et al., 2017).

2.2 Anxiety

The American Psychiatric Association defines anxiety as a state of excessive worry, fear, or apprehension that is often disproportionate to the actual threat or situation. The APA defines anxiety disorders as a group of mental health conditions where anxiety is a prominent feature The body frequently reacts to imagined threats by tightening its muscles, quickening respiration, and quickening heartbeat(*APA Dictionary of Psychology*, n.d.). Even though anxiety and fear are sometimes used interchangeably, there are conceptual and physiological differences between the two. While fear is a suitable, present-oriented, transient reaction to a clearly defined and particular threat, anxiety is thought of as a future-oriented, long-acting reaction centered on a diffuse threat(*Diagnostic and Statistical Manual of Mental Disorders*, 2013). The WHO states anxiety disorders as one of the world's most common mental disorders that has affected 301 million people in 2019. The worldwide prevalence is 4% occurring higher in women than

men(*Anxiety Disorders*, n.d.). On the Diagnostic manual of mental disorders, 7 categories of anxiety disorders are listed with shared feature of excessive fear and anxiety and related behavioral disturbances. In some, the level of fear or anxiety is reduced by pervasive avoidance behaviors (*Diagnostic and Statistical Manual of Mental Disorders*, 2013). Like depression, anxiety disorders are also closely linked to physical illnesses, with a bidirectional association leading to significant impairment and increased morbidity. Studies show that individuals with anxiety disorders have higher rates of various medical conditions such as cardiac disorders, hypertension, gastrointestinal issues, genitourinary problems, and migraines (Härter et al., 2003; Kariuki-Nyuthe & Stein, 2015). Below several theories on anxiety and the association between physical illnesses are discussed.

2.2.1 Theories of anxiety

Numerous theories of anxiety have been proposed in psychology, the most prominent ones are; Psychodynamic theory, suggesting the unconscious conflicts play a significant role in anxiety disorders and symptoms with an emphasis of the connection between unconscious processes and psychological functioning(Anxiety, 2022) and the biological theories, which include neurochemical, genetic, and cognitive factors(Andri & Dewi, 2011). Overall, these theories provide insights into the multidimensional nature of anxiety and inform therapeutic approaches for its management. These and other theories are seen in the next section.

Freud's Theories of Anxiety

Freud's first theory, the toxic theory, suggests that libido is converted into anxiety through repression, but in his later work, Freud considered anxiety as the fundamental problem of neurosis, focusing more on the mechanics than the origins of anxiety. Freud believed that anxiety arises from intrapsychic conflict, where different parts of the personality oppose each

other, leading to repression and dissociation (Crosby, 1976). Freud categorized anxiety into reality anxiety, neurotic anxiety, and moral anxiety, reality anxiety arises in response to real, external threats or dangers, on the other hand, neurotic anxiety relates to a fear of losing control over impulses or behaviors particularly instincts led by id, and moral anxiety according to Freud is a type of anxiety arising from conflicts between the ego and the superego. Defense mechanisms like repression and projection play a role in managing anxiety according to Freud's theory of anxiety(S. R. Pitman & Knauss, 2020).

Gray's Theory of Anxiety

According to this theory, anxiety consists of conditioned fear and conditioned or anticipatory frustration. Conditioned fear refers to fear response that are learned through association based on the classical conditioning principle while conditioned or anticipatory frustration involves anxiety related to the anticipation of potential frustration or failure. (Grinker, 1961).

Psychodynamic theory of anxiety

The Psychodynamic theory of anxiety suggests that unconscious conflicts are characteristic of anxiety disorders and symptoms, with an emphasis on the influence of unconscious forces on human behavior and psychological functioning. The theory examines the interaction between unconscious processes and daily experiences, expanding its focus beyond individual minds to include dynamics within families, groups, and systems. Claiming to treat anxiety a comprehensive psychodynamic approach is needed which integrates biological, genetic, and clinical techniques developed by Sigmund Freud a century ago (S. R. Pitman & Knauss, 2020).

Biological theories of anxiety

Biological theories of anxiety encompass various factors such as neurochemical, metabolic, genetic, and neuroscientific aspects(Domschke, 2012; Gregurek & Gregurek, 2016; Kyriakoulis & Kyrios, 2023). Genetic studies have highlighted the significant heritability of anxiety disorders, with specific genes involved in significantly increasing influence susceptibility and risk for developing anxiety disorders(Burijon, 2007) but it's important considering the interaction between genetic vulnerability and environmental stressors that are mediated by epigenetic processes since it plays a crucial role in the onset of anxiety disorders(McNaughton, 2014).

2.2.3 Anxiety and physical illness

Anxiety commonly co-occurs with physical illnesses, in people with physical diseases, anxiety and depression are prevalent (Akbar et al., 2022). Since, the comorbidity of anxiety with common medical conditions leads to significant impairment and economic costs(Yang et al., 2021), the recognition and addressing of anxiety in individuals with physical illnesses is crucial for improving overall well-being and optimizing treatment outcomes.

Another noteworthy factor is that anxiety can be mistaken for other medical conditions due to overlapping symptoms which leads to misinterpretation and a potential misdiagnosis. As research indicates, individuals with anxiety disorders often exhibit somatic symptoms that mimic various medical conditions, such as cardiovascular, respiratory, gastrointestinal issues, and neurological disorders(Meuret et al., 2020) ending patients in a general hospital adding to the burden on disease. Additionally, the under-recognition of somatic symptoms associated with panic attack in primary care settings has led to unnecessary diagnostic procedures and referrals to specialists, highlighting the challenges in distinguishing anxiety from physical ailments (Aquin

et al., 2017). The reason being, panic disorders may manifest as physical symptoms such as cardiorespiratory and balance system abnormalities, leading to a decline in physical fitness, which could be misinterpreted as solely physical issues (Perna & Caldirola, 2018) consequently leading individuals to emergency room. Additionally, the fear of physical symptoms in panic disorder can exacerbate the issue, as individuals may misinterpret normal bodily sensations as harmful, perpetuating the cycle of anxiety and physical symptoms which leads them to seek medical attention more than individuals without anxiety disorder (Rahe, 1988). This misattribution of anxiety-related symptoms as purely physical can complicate diagnosis and treatment, highlighting the importance of distinguishing between anxiety and physical disorders for appropriate management (Muotri et al., 2007). Therefore, it is crucial for healthcare providers to be aware of these complexities to ensure accurate identification and appropriate treatment of anxiety disorders.

2.3 Stress

Stress refers to the strain from the conflict between our external environment and us, leading to emotional and physical pressure (Amin & Ahmad, 2018). In optimal amounts stress is normal it can even enhance motivation in simple tasks but hinder performance in complex ones, impacting individuals at school and work (Grafenauer Ekart, 2023).

Stress causes modifications to almost every bodily system, which affects how people feel and act. Examples of symptoms involving body systems are palpitations, perspiration, dry mouth, shortness of breath, fidgeting and rapid speech((*APA Dictionary of Psychology*, n.d.).

The prevalence of stress in different region differs, for instance in a in a systematic study done in Sub-Saharan Africa stress-related disorders like PTSD, Adjustment Disorder, Complex PTSD, and Prolonged Grief Disorder are prevalent with rates ranging from 3.7% to 18.6% (Ng et

al., 2020). Additionally, a study across three sub-Saharan African countries namely Nigeria, Kenya, and Ghana, found that a minimum of 15.6% of adults reported experiencing psychological distress, with urban and rural areas showing varying levels of distress (Ben-Ezra et al., 2020). Furthermore, stress among healthcare professionals, particularly doctors, is a significant concern, with rates as high as 51% in certain regions (Assefa et al., 2023). These results underscore the importance of addressing stress and related disorders in African populations to improve mental health outcomes.

In Ethiopia, the prevalence of stress varies across different populations as well for in a study of medical students, an overall of 44% stress were found among medical students at Haramaya University, Ethiopia((Asfaw et al., 2021). With a close prevalence of occupational stress among health care professionals in Ethiopia with 52.5% prevalence (Girma et al., 2021). On the hand, stress levels are higher in post-war districts of Northern Ethiopia which was 76.1%, indicating a high burden of stress among the population studied (Tadese et al., 2022). The impact of stress on societies and organizations is vast; economic costs and poor health outcomes affect productivity, health, and well-being (Chen et al., 2023). Therefore, proper diagnosis and management is crucial in healthcare.

Theories of stress

Early stress theories mainly looked at how bodies react to stress with automatic responses like the fight-or-flight reaction. Over time, newer models began to consider not just physical reactions to stress but also cognitive and emotional aspects. For instance, the Transactional Model examines how stress is interpreted and managed, while the Salutogenic Model focuses on factors that support health. The Conservation of Resources Theory addresses how individuals strive to protect their resources and the stress associated with threats to them. More recent

theories explore work-related stress, analyzing how factors such as job demands and control, the balance of rewards versus effort, perceptions of fairness, and available resources impact stress levels and overall well-being(Hou & Tao, 2023; Siegrist, 2023). Although various theories on the psychology of stress are present, the 1936, Han's Selye Biophysical modelling of the stress theory will only be discussed below.

Biophysical Modelling of the Stress Theory

The Biophysical Modelling of Stress Theory offers a comprehensive framework by integrating physiological and psychological aspects to understand stress. This model examines how stress triggers physiological changes, such as the release of stress hormones like cortisol and adrenaline, which prepare the body for a "fight-or-flight" response taken from Hans(Selye, 1956). It also considers psychological processes, including cognitive appraisal (how individuals perceive and evaluate stressors) and emotional reactions (such as anxiety or frustration)(Kavanagh, 1986). By highlighting the interaction between these physiological and psychological systems, the Biophysical Modelling of Stress Theory provides a holistic view of how stress responses are shaped and how they impact overall health and well-being (McEwen, 2007). This integrated approach is essential for understanding the complex dynamics of stress and its effects.

2.3.1 Stress and physical illness

Stress is often associated with physical illness, and social factors along with stress play a significant role in illnesses like rheumatoid arthritis, blood pressure, coronary heart disease, and cholesterol levels (Cassel, 2017). Chronic stress might also weaken the immune system leading to viral infection, it also causes exacerbation of Asthma, diabetes, ulcers and atherosclerosis

(Salleh, 2008). On the other hand, the presence of chronic medical illness can lead to stress making the impact both psychological and physical (Riccio et al., 2018).

2.4 Empirical evidence

2.4.1Earlier International studies on DAS

After the pandemic of COVID-19, the prevalence of DAS has increased across the globe. Numerous studies show that the prevalence rates of these mental health issues have risen compared to pre-pandemic levels, with depression exhibiting the largest elevation globally (Nageswaran & Devi, 2021). Factors linked to higher levels of DAS were uncertainty, isolation, extended quarantine periods, lack of exercise, and demographic variables like age, gender, and marital status. The pooled global prevalence estimates during the pandemic were depression at 28.18%, anxiety at 29.57%, and stress at 25.18% among the general population (Mahmud et al., 2022), indicating a widespread impact on mental health worldwide.

On the other hand, studies conducted on healthy populations show a lower prevalence of DAS. For instance, a study on healthy and productive populations found mild to moderate levels of DAS in 22.1%, 23%, and 15.2% of the participants, respectively, while observing severe or extremely severe levels in 5.1%, 8.7%, and 7.3% of the participants (Grover et al., 2017). In a similar study conducted in Iran, the Yazd population exhibited a prevalence of 29%, 32.2%, and 34.8% for depression, anxiety, and stress, respectively (Mirzaei et al., 2019)Comparable levels of depression, anxiety, and PTSD were found in civilians living in areas affected by conflict or war, with aggregate prevalence rates of 28.9%, 30.7%, and 23.5%, respectively, while military personnel exhibited significantly higher rates (Lim et al., 2022).

Intriguingly, the prevalence of DAS is consistently higher in people with physical illnesses or those seeking help from health institutions when compared to the population groups

mentioned above. For instance, a study investigating anxiety and depression characteristics among patients in general hospitals in China reported prevalence rates of 63.3%, 75.1%, 57.1%, and 81.2%, respectively, for anxiety, depression, and their comorbidity (Yang et al., 2021). In another study of chronic Temporomandibular Disorder (TMD) patients, an overall prevalence of depression of 48.1% and anxiety of 74% was reported (Sruthi et al., 2018).

During the COVID-19 pandemic, a systematic review and meta-analysis revealed pooled prevalence rates of depression and anxiety at 48% and 47%, respectively, among the general population across Africa. These rates highlight the significant mental health burden faced by communities in this region, exacerbated by the pandemic's socio-economic and health-related challenges(Bello et al., 2022). A community-based study in Ghana also reported notable comorbidity between depression, anxiety, and stress among adults. Approximately 9% of individuals experienced depression, and 10% reported anxiety, with income and social support identified as key factors influencing these outcomes (Amu et al., 2021).

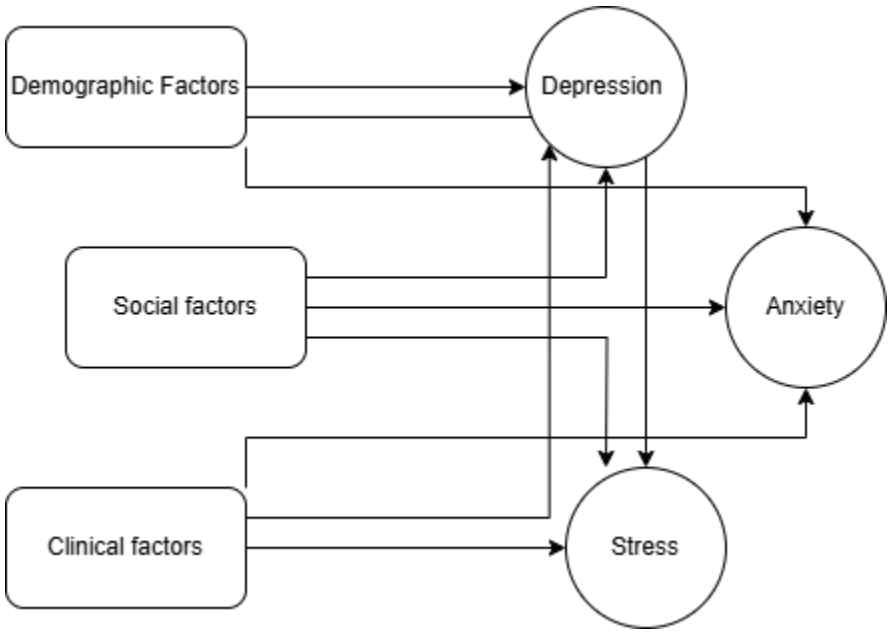
2.4.2Earlier Local or national studies on DAS

A few national studies have been done on the prevalence of DAS among different population groups in Ethiopia, they are discussed below. In a study conducted at Kaliti High-Security Correction Center to assess the prevalence of DAS 78% of inmates reported symptoms of depression, 62.8% reported symptoms of anxiety, and 64.9% reported symptoms of stress, that ranged from mild to severe (Mulu, 2021). Another study done among medical students indicated an overall prevalence of depression, anxiety, and stress of 47.5%, 61.2%, and 36.6%, respectively(Belay, 2018). Among counseling service providers the prevalence of DAS was 54%, 74.3%, and 43.4% respectively (Besfat, 2020). In Ethiopia, a comparison of anxiety and depressive symptoms between patients with general medical conditions and community residents

revealed that those with medical conditions at health centers exhibited twice the level of anxiety and depressive symptoms compared to healthy individuals in the community. (Misgan & Belete, 2021)

International studies unanimously imply a higher level of prevalence of DAS among people seeking medical care or having a chronic illness in comparison to other population groups, even from groups where a higher prevalence is expected such as populations in conflict or war. A study hasn't been done in Ethiopia that measures the prevalence of DAS among patients seeking medical care, which was the knowledge gap this research intended to fill.

2.5 Conceptual framework



CHAPTER THREE: METHODOLOGY

3.1 Study design

This study used a cross-sectional survey design, collecting data at a single point in time to capture the prevalence of Depression, Anxiety, and Stress (DAS) among the outpatient population. This approach was chosen because it provides a quick and effective way to understand the mental health status of the specific group.

A quantitative method was used, allowing for the objective measurement of DAS through the DASS-21 scale, a well-established tool known for its reliability and validity. This approach made it possible to analyze patterns and relationships within the data, such as how factors like age, gender, or medical history might be linked to DAS.

The study period, designated for data collection was Sept 2024. A permission to collect data was received from responsible bodies at TASH.

3.2 Study area

The survey was carried out at TASH, located in Arada Sub-city, Addis Ababa, Ethiopia.

Addis Ababa serves as the capital city of Ethiopia. The demographic of Addis Ababa is projected to reach 5,704,000 people by the year 2024. The city as a whole is segmented into 11 sub-cities. As per the city profile of Addis Ababa in 2021, it is noted that there are 39 government-operated health centers and 28 health posts, alongside 359 privately owned health clinics and 40 hospitals(City Profile Addis Ababa, 2021). Please check number of hospitals, health centres and health posts owned by the government.

TASH stands as the primary referral hospital in the nation. Presently, it functions as the principal teaching hospital for clinical and preclinical education across various fields. Moreover,

it operates as a facility offering specialized clinical services not accessible in other public or private medical institutions to the entire populace. The hospital's patient care is provided by the different departments, faculties, and residents undergoing specialty training within the School of Medicine. It has 800-bed approximately seeing 370,000-400,000 patients a year. 80,000 patients visit the emergency department per year. The hospital has 169 specialists, 65 non-teaching doctors, 25 fellows, 500 Residents, 1396 medical students, and 99 Interns(Gudeta, 2023).

The reason Tikur Anbessa was chosen for this study is because Tikur Anbessa is a tertiary care hospital that provides specialized care for patients from all around Ethiopia, who might have little or no awareness of Depression, anxiety, and stress and even lower access to mental health services. Additionally, many patients come to Tikur Anbessa referred from their respective cities for better treatment, meaning the traveling, the prices, and concerns related to one's health might harm their mental health.

3.3 Source population

All patients visiting the outpatient department of TASHs who are above the age of 18 are considered the source population. According to the community-based health insurance (CBHI) office at TASH, 29, 900 individuals visited the outpatient department between June 2023 and June 2024, with a gender distribution of 56% female (16,744) and 44% male (13,156).

Between March and May 2024, 7,488 individuals visited the outpatient department, with 52% being female (3,889) and 48% male (3,599). A monthly average of 1105 individuals visited out patients. During the week of June 17-21, 2024, the department has treated 455 patients, 48% female (219) and 51% male (236).

The variance in the number of individuals visiting the OPD is influenced by external factors such as political issues, safety concerns, transportation challenges, and the temporary closure of OPDs due to infrastructure developments or examinations for hospital staff. These factors were considered during sampling to ensure that the study sample accurately reflects the outpatient population during typical and atypical conditions.

3.4 Study Population

The study population consisted of patients attending the outpatient departments (OPDs) at Tikur Anbessa Specialized Hospital**.** The OPDs included in the study were Internal Medicine, Surgery, Gyni/Obs, and Oncology departments. Participants were individuals aged 18 years and above seeking treatment or consultations during the study period.

3.5 Sample size determination

To determine the minimum number of individuals to participate in the study a single population proportion formula was used. In this study, a Confidence Level of 95% (Z = 1.96), an Estimated Proportion of p=0.5% (because absence of previous studies), a Margin of Error of E=0.05, and a Population Size of 455 patients was used.

$$n = \frac{Z^2 * p * (1 - p)}{E^2}$$

Where:

- n= required sample size
- Z= Z-score corresponding to the desired confidence level (e.g., 1.96 for 95% confidence)

- p= estimated proportion of the population (if unknown, use 0.5 for maximum variability)
- E = margin of error (desired level of precision, expressed as a decimal)

The initial sample size calculation, before being adjusted for the population size

$$n = \frac{1.96^2 * 0.5 * (1-0.5)}{0.05^2} = \frac{3.8416 * 0.25}{0.0025} = \frac{0.9604}{0.0025} = 384.16$$

Since the study population is less than 10,000 (1105), it was adjusted using the finite Population correction factor.

$$n_{adj} = \frac{n}{1+\left(\frac{n-1}{N}\right)} = \frac{385}{1+\left(\frac{385-1}{455}\right)} = \frac{385}{1+\frac{384}{1105}} = \frac{385}{1.3475} \approx 286$$

Then, the adjusted formula is 286, when we add a 10% non-response rate, the sample size becomes 314.

3.6 Sampling technique

The sampling method employed in this study was convenience sampling. This approach was selected due to practical considerations such as limited time, resource constraints, and ease of access to participants within the OPD setting. Patients were included based on their availability, willingness to participate, and physical ability to complete the questionnaire during their OPD visits.

3.7 Inclusion and exclusion criteria

Inclusion Criteria

Participants included in the study are those that meet the following criteria, if their age is 18 or above, if they are visiting the outpatient department of TASH during the study period, if

they consent to participate, and if they are cognitively able, meaning they can understand and complete the DASS-21 questionnaire.

Exclusion Criteria

Participants excluded from the study are those unable to consent, inpatients or in emergency care, and have acute medical conditions that put them in significant discomfort.

3.8 Study variables

The dependent variables are depression, anxiety, and stress (DAS), which are operationally defined. The independent variables include age (in years), sex (male or female), marital status (single, married, widowed, or divorced), religion (Orthodox, Protestant, Muslim, or others), economic status (low, average, or high), education level (illiterate, primary school, secondary school, or above), outpatient department (surgery, internal medicine, gynecology/obstetrics, or oncology), and duration of illness (less than 5 years, 5–10 years, or more than 10 years).

3.9 Measures or instruments

A questionnaire consisting of two parts was prepared. The first part covered the socio-demographic characteristics of the study participants, comprising seven questions: age, gender, marital status, religion, economic status (low, average, or middle), education level (illiterate, primary school, secondary school, or above), and duration of illness (less than 5 years, 5–10 years, or more than 10 years). Information on the outpatient department (OPD) was recorded separately by the data collector, the second part is an Amharic translation of the DASS-21 scale which is a standardized instrument for assessing the psychological conditions of patients visiting the outpatient level. This scale is known for its widespread utilization, it is designed to measure

the levels of DAS. The scale consists of three subscales, each with 7 items measuring depression, anxiety, and stress(Basha & Kaya, 2016). The questionnaire had 28 questions in total.

DASS-21 scale possesses a strong psychometric properties. It has good construct validity where its three factor structure, (Depression, Anxiety and Stress) consistently been confirmed across different populations. It's reliability has been tested across multiple studies, showing high internal consistency, with a Cronbach's alpha exceeding 0.80 for each subscale(Antony et al., 1998). It uses a Likert scale format, where participants rate the extent to which they have experienced each symptom over the past week on a scale from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time).

The scores for each subscale are calculated by summing the scores for the relevant seven items and then multiplying by two to match the full DASS-42 scoring. The total score for each subscale ranges from 0 to 42. The severity of symptoms is categorized as follows:

- **Depression Subscale:** Normal (0-9), Mild (10-13), Moderate (14-20), Severe (21-27), Extremely Severe (28+).
- **Anxiety Subscale:** Normal (0-7), Mild (8-9), Moderate (10-14), Severe (15-19), Extremely Severe (20+).
- **Stress Subscale:** Normal (0-14), Mild (15-18), Moderate (19-25), Severe (26-33), Extremely Severe (34+).

A pilot study was conducted prior to data collection to identify and address potential issues. The reliability of the instrument was assessed using Cronbach's alpha, which yielded a value of 0.845 for the DASS-21, indicating high internal consistency. Content validity was

evaluated through Pearson's correlation coefficient, with a value of 0.78, exceeding the critical value and indicating strong validity. Thus, the questionnaire was deemed both reliable and valid.

3.10 Data collection procedure

A pilot test was conducted on 30 patients, representing approximately 13% of the sample size. This preliminary test purpose was to identify any potential issues with the questionnaire, the data collection process, or the participants' comprehension of the questions. After that the feedback obtained from the pilot test was used to adjust the questionnaire before the main data collection begins.

During the data collection, participants were recruited from the outpatient department (OPD) of TASH. Patients who met the inclusion criteria were approached while they wait in the OPD. Those who consent to participate was given the DAS Scale-21 (DASS-21) questionnaire to complete. Although the questionnaire was self-administered, some patients needed help in filling the questionnaire since they were illiterate, and some participants who needed assistance in filling some questions or needed help.

The data collected from the questionnaires was entered into SPSS software version 25.0. To ensure accuracy, the data entry process was checked a few times.

3.11 Data analysis

Descriptive statistics, including numbers, frequencies, and percentage values, was employed to summarize socio-demographic characteristics and the levels of DAS. Inferential statistics was used to analyze group differences in DAS scores based on socio-demographic variables, particularly sex, age, and marital status. A t-test was employed to determine differences between male and female patients, while One-Way ANOVA was used to compare differences across predefined age groups (e.g., 18-35, 36-55. 56+) and marital statuses (e.g.,

single, married, divorced/widowed) among patients visiting TASH's outpatient department. After which post hoc was run when comparisons deemed statistically significant.

3.12 Data Quality Assurance

To have a high-quality data collection, several procedures was implemented. Prior to data collection, two data collectors received training, covering the study's objectives, the questionnaire (DASS-21), and data collection techniques. The data collectors then provided participants with clear explanations about the study to address any potential misunderstandings and to ensure informed consent. A pilot study was also conducted beforehand to identify and resolve any issues with the questionnaire or data collection procedures, allowing for adjustment before the data collection. Throughout the data collection completed questionnaires were checked for accuracy and completeness.

3.13 Ethical consideration

Ethical clearance and a letter of support from Addis Ababa University was provided for TASH outpatient department head for approval. On the days of data collection, this documents were provided for OPD staff after that, participants willing to participate in the study were given a brief explanation about the study and confidentiality. After that consent was received. Participants were ensured of their voluntary participation and right to terminate at any time they want. Throughout the study, strict confidentiality was ensured.

CHAPTER 4: RESULTS

The findings and results of this research are presented in this chapter, which has two sections, the first is descriptive statistics which presents the socio-demographic data of the respondents and the duration of illness leading to the OPD and in second section inferential statistics methods like One way ANOVA, post-hoc comparisons and t-test are used to analyse DAS were used to analyse if there was a statistically significant difference among patients in DAS in terms of age group, gender, marital status, educational status, level of income, and duration of illness.

Table 1
Sociodemographic Characteristics of respondents

Socio-demographic characteristics	n	%
Gender		
Female	141	48.0
Male	153	52.0
Religion		
Orthodox	168	57.1
Islam	64	21.8
Protestant	55	18.7
Other	7	2.4
Monthly Income		
<5000 Birr	213	72.4
5000–15,000 Birr	68	23.1
>15,000 Birr	13	4.4
Education Level		
Illiterate	81	27.6
Primary	42	14.3
Secondary and above	171	58.2

Note. *N = 294.*

On table 1, a summary of socio-demographic characteristics of the respondents is shown of 294 outpatients that were included in the study. Socio-demographic variables, age, marital status, age religion and education level are described below.

The majority of respondents are aged 35-59 years (38.1%), with 34.4% under 35 and 27.6% over 60. The sample is nearly balanced between males (52.0%) and females (48.0%). Most individuals identify as Orthodox Christians (57.1%), followed by Islam (21.8%) and Protestant (18.7%), with 2.4% following other religions. A significant number of the population earns less than 5000 Birr monthly (72.4%), and more than half (58.2%) have attained secondary education or higher.

Table 2
Duration of Illness Among respondents

Duration	n	%
Less than 5 years	164	55.8
5–10 years	71	24.1
More than 10 years	59	20.1

Note. *N = 294.*

Table 2 shows the frequency of duration of illness leading to OPD, where 55.8% reported being ill for less than 5 years, while 24.1% had illness durations of 5-10 years, and 19.4% for more than 10 years.

Table 3
Frequency and percentage distribution of OPD visits by department.

OPD	n	%
Surgery	84	28.6
Internal Medicine	97	33.0
Gynecology/Obstetrics	71	24.1
Oncology	42	14.3

Table 3 shows the distribution of OPD visits by department. Internal Medicine accounted for the highest proportion (33.0%) of visits, followed by Surgery (28.6%), Gynecology/Obstetrics (24.1%), and Oncology (14.3%).

4.1 Prevalence and Level of Depression, Anxiety and Stress among out patients at TASH

Table 4
The prevalence of depression, anxiety and stress among out patients at TASH

Severity Level	Depression	Anxiety	Stress
Normal	102 (34.7%)	115 (39.1%)	88 (29.9%)
Mild	32 (10.9%)	40 (13.6%)	29 (9.9%)
Moderate	44 (15.0%)	57 (19.4%)	68 (23.1%)
Severe	38 (12.9%)	39 (13.3%)	56 (19.0%)
Extremely Severe	78 (26.5%)	43 (14.6%)	53 (18.0%)

Note. *N = 294*

Table 4 describes the prevalence of DAS among people visiting OPD at TASH. According to the DASS-21 manual, the severity of DAS was divided among 5 categories of Normal, mild, moderate, severe and extremely severe.

From the total of 294 respondents who participated in this study, the total prevalence of depression was found to be 65.3 % according to DASS-21 scale. The table above shows that 102(34.7%) were classified as normal in terms of depression, while 32(10.9%) had mild depression, 44(15%) moderate depression, 38(12.9%) has severe depression and while 78(26.5%) experienced extremely severe depression.

From the total respondents, 179 (60.8%) were classified to have anxiety, where 115(39.1%) fell into the normal range, whereas 40(13.6%) had mild anxiety, with 57(19.4%) had

moderate level of anxiety, 39(13.3%) had severe level of anxiety and 43(14.6%) experienced extremely severe anxiety.

In terms of stress, 206 (70.1%) where classified to have some level of stress with 29.9% being classified as normal, whereas 206 (70.1%) were classified with mild level of stress, moderate stress by 68 (23.1%), severe stress by 56 (19.0%), and extremely severe stress by 53 (18.0%).'

Table 5
Group Statistics for Depression, Anxiety, and Stress by Gender

Measure	Gender	N	Mean	SD
Depression	Male	153	17.90	13.08
	Female	141	16.54	11.56
Anxiety	Male	153	14.13	10.66
	Female	141	13.62	9.78
Stress	Male	153	16.63	10.59
	Female	141	17.13	10.68

Note*. This table presents mean scores and standard deviations for depression, anxiety, and stress across male and female participants.*

Table 6
Independent t-test of respondents by Gender Differences in DAS Scores

Variable	N	Mean	Std.	t	df	Sig. (2-tailed)
Depression	292	1.356	1.445	0.939	292	0.349
Anxiety	292	0.514	1.196	0.429	292	0.668
Stress	292	-0.507	1.241	-0.409	292	0.683

Note. *Levene's test was conducted for each DAS score, and t-tests were used to compare gender differences, with results showing mean differences, standard errors, and 95% confidence intervals.*

Tables 6 present the independent t-test conducted to compare the means of DAS scores between two groups of participants: male and female. Since the p-values are all greater than 0.05 it indicates that there was no a statistically significant difference between the groups, male and female. This means that both male and female patients are suffering from depression, anxiety and stress equally.

Table 7

One-Way Analyses of Variance of respondents on Depression, Anxiety, and Stress by Age Group

		SS	df	MS	F	Sig.
Depression	Between groups	345.815	2	172.908	1.131	.324
	Within groups	44506.553	297	152.978		
Anxiety	Between groups	97.310	2	48.655	0.463	.630
	Within groups	30590.758	297	105.134		
Stress	Between groups	491.152	2	245.576	2.196	.113
	Within groups	32541.937	297	111.854		

***Note**: **P-value** for Depression, Anxiety, and Stress: All are **not significant**, as all p-values are greater than 0.05 (i.e., **p > 0.05**).*

Table 7 presents the summary of a one-way ANOVA that was performed to identify the differences in depression, anxiety, and stress scores among outpatients based on age group. The results of the analysis revealed the following:

For Depression the one-way ANOVA showed no statistically significant difference in depression scores among the age groups at the $p > .05$ level, $F(2, 291) = 1.131$, $p = .324$. For Anxiety, there was no statistically significant difference in anxiety scores among the age groups at the $p > .05$ level, $F(2, 291) = 0.463$, $p = .630$. For Stress, the one-way ANOVA showed no statistically significant difference in stress scores among the age groups at the $p > .05$ level, $F(2, 291) = 2.196$, $p = .113$. While not significant, the result for stress approached significance. In summary, the analysis did not show significant differences in the levels of depression, anxiety, or stress based on age group in this dataset.

Table 8

One-Way Analyses of Variance of respondents on Depression, Anxiety, and Stress by marital status

Variable		SS	df	MS	f	Sig.
Depression	Between groups	190.522	2	95.261	3.881	.022*
	Within groups	7139.174	297	24.532		
Anxiety	Between groups	136.875	2	68.438	3.167	.044*
	Within groups	6290.914	297	21.614		
Stress	Between groups	222.810	2	111.405	4.916	.008*
	Within groups	6590.691	297	22.648		

Note: *Significant differences were found in depression ($p = .022$), anxiety ($p = .044$), and stress ($p = .008$) scores by marital status, as indicated by the asterisks.*

Table 8 describes the results of a one-way ANOVA comparing groups by scores of depression, anxiety and stress. For Depression, the one-way ANOVA indicated a statistically significant difference in depression scores among age groups at the $p < .05$ level, $F(2, 291) =$

3.881, p = .022. For Anxiety , the one-way ANOVA also revealed a statistically significant difference in anxiety scores among age groups at the $p < .05$ level, $F(2, 291) = 3.167$, $p = .044$. For Stress, the one-way ANOVA showed a statistically significant difference in stress scores among age groups at the $p < .05$ level, $F(2, 291) = 4.916$, $p = .008$. In summary, the analysis indicated significant differences in the levels of depression, anxiety, and stress based on marital status in this dataset.

Since there was a significant difference among marital status, further analysis was run using post hoc (Bonferroni) to compare individual groups. Which is shown on the table below.

Table 9

Post hoc comparisons for DAS among respondents based on marital status

	Marital Status Comparison	Mean Difference (I-J)	p-value
Depression	Single vs. Married	-0.366	1.000
	Single vs. Divorced/Widowed	-6.276*	0.027
	Married vs. Single	0.366	1.000
	Married vs. Divorced/Widowed	-5.910*	0.028
	Divorced/Widowed vs. Single	6.276*	0.027
	Divorced/Widowed vs. Married	5.910*	0.028
Anxiety	Single vs. Married	-0.479	1.000
	Single vs. Divorced/Widowed	-4.793*	0.047
	Married vs. Single	0.479	1.000
	Married vs. Divorced/Widowed	-4.314	0.067
	Divorced/Widowed vs. Single	4.793*	0.047
	Divorced/Widowed vs. Married	4.314	0.067
Stress	Single vs. Married	0.073	1.000
	Single vs. Divorced/Widowed	-5.800*	0.014
	Married vs. Single	-0.073	1.000
	Married vs. Divorced/Widowed	-5.873*	0.008
	Divorced/Widowed vs. Single	5.800*	0.014
	Divorced/Widowed vs. Married	5.873*	0.008

Note: **The mean difference is significant at the 0.05 level.*

Table 9 of the post hoc comparisons reveals there is a significant differences in depression, anxiety, and stress scores among outpatients based on marital status. For depression, Divorced/widowed individuals reported significantly higher scores compared to both singles (Mean Difference = -6.276, p = .027) and married individuals (Mean Difference = -5.910, p = .028). In terms of anxiety, Divorced/widowed individuals also experienced significantly higher levels than singles (Mean Difference = -4.793, p = .047), while the difference between married and Divorced/widowed individuals was not statistically significant (Mean Difference = -4.314, p = .067). Regarding stress, Divorced/widowed individuals again showed significantly higher scores than singles (Mean Difference = -5.800, p = .014) and married individuals (Mean Difference = -5.873, p = .008). Overall, the post hoc analysis results indicate that Divorced/widowed individuals experience significantly higher depression, anxiety and stress levels than both singles and married individuals, demonstrating that marital status significantly affects DAS levels.

Table 10

One-Way Analyses of Variance of respondents on Depression, Anxiety, and Stress by Education Level

Variable		SS	df	MS	F	Sig.
Depression	Between groups	190.522	2	95.261	0.899	0.408
	Within groups	7139.174	291	24.55		
Anxiety	Between groups	136.875	2	68.438	2.193	0.113
	Within groups	6290.914	291	21.65		
Stress	Between groups	222.810	2	111.405	1.650	0.194
	Within groups	6590.691	291	22.65		

Table 10 describes a one-way ANOVA that was conducted to examine the differences in levels of depression, anxiety, and stress among outpatients based on their education level

(Iliterate, Primary, and Secondary and above). The analysis revealed that there is no statistically significant differences for any of the dependent variables. For Depression the F-value was 0.899 with a p-value of .408, indicating that the mean depression scores do not differ significantly across education levels. Similarly, for Anxiety, the F-value was 2.193 with a p-value of 0.113, showing no significant differences in anxiety levels based on education. Lastly, for Stress, the F-value was 1.650 with a p-value of .194, which also indicates there is no significant differences in stress levels across the groups. Overall, these results suggest that education level does not have a significant impact on the mental health outcomes of depression, anxiety, or stress among the participants in this study.

Table 11
One-Way Analyses of Variance of respondents on Depression, Anxiety, and Stress by Duration of Illness

Variable		SS	df	MS	f	Sig.
Depression	Between groups	0.276	2	0.138	0.276	0.759
	Within groups	291	1	1.000		
Anxiety	Between groups	0.711	2	0.355	0.711	0.492
	Within groups	291	1	1.000		
Stress	Between groups	0.210	2	0.105	0.210	0.811
	Within groups	291	1	1.000		

Table 11 shows a one-way ANOVA comparing groups of DAS by duration of illness. It shows depression has an F-value of 0.276 with a p-value of .759, meaning with no statistically significant differences in across the different durations of illness. Similarly, the F-value in anxiety of 0.711 with a p-value of .492, indicating that there also is no statistically significant differences in anxiety levels among the groups. Again, for stress the F-value is 0.210 with a p-

value of .811, which further suggests that there are no statistically significant differences in stress levels based on the duration of illness.

Table 12
One-Way Analyses of Variance of respondents on Depression, Anxiety, and Stress by Monthly Income

Variable		SS	df	MS	F	Sig.
Depression	Between groups	2088.828	2	1044.414	7.107	.001*
	Within groups	42763.539	291	146.954		
Anxiety	Between groups	595.372	2	297.686	2.879	.058
	Within groups	30092.696	291	103.411		
Stress	Between groups	1583.550	2	791.775	7.326	.001*
	Within groups	31449.538	291	108.074		

Note: *P-values for Depression and Stress are significant (P = .001), showing meaningful group differences. The P-value for Anxiety (P = .058), however, is not significant, exceeding the threshold of 0.05.*

Table 12 shows a one-way ANOVA comparing groups of DAS by monthly income. As it's shown above depression has an F-value of 7.107 with a p-value of .001, indicating a statistically significant difference among different income groups. While the F-value for anxiety is 2.879 with a p-value of .058. While this is close to significance it is above 0.05, which indicates that there are no statistically significant differences in anxiety levels across the income groups. On the other hand, the F-value of stress is 7.326 with a p-value of .001, suggesting a statistically significant difference in stress levels among the different income groups. To further identify which monthly income group is statistically significant for the score of DAS among outpatients, a post-hoc was done for depression and anxiety. The results shows a significant differences between those earning < 5000 Birr and > 15,000 Birr (Mean Difference = -11.573, p = .016) suggesting that a higher income is associated with lower depression scores.

Similarly, a significant differences were found between in those earning < 5000 Birr and > 15,000 Birr (Mean Difference = -9.488, p = .023) indicating higher income levels are linked to lower stress scores.

Table 13
Two-Way ANOVA Results of respondents for Depression Categories by Gender and OPD

Source	Sum of Squares	df	Mean Square	F	Sig.
Gender	2.088	1	2.088	0.799	0.372
OPD	19.908	3	6.636	2.541	0.057
Gender × OPD	15.964	3	5.321	2.038	0.109
Error	746.855	286	2.611		
Total	3184.000	294			
Corrected Total	784.000	293			

Table 13 shows a two-way ANOVA that was conducted to examine the effects of gender and OPD department on depression categories (normal, mild, moderate, severe, and extremely severe). The analysis revealed a marginally significant main effect of OPD department on depression categories, F(3 ,286)=2.541, p=.057, suggesting potential differences in depression categories across departments. However, the effect of gender was not significant, F(1, 286)=0.799, p=.372, nor was the interaction between gender and OPD department, F(3, 286) = 2.038, p =.109. The model explained 4.7% of the variance in depression categories (adjusted R^2 = 2.4%).

Table 14
Two-Way ANOVA Results of respondents for Anxiety Categories by Gender and OPD

Source	Sum of Squares	df	Mean Square	F	Sig.
Gender	0.819	1	0.819	0.382	0.537
OPD	19.020	3	6.340	2.955	0.033
Gender × OPD	5.324	3	1.775	0.827	0.480
Error	613.716	286	2.146		
Total	2487.000	294			
Corrected Total	639.486	293			

Table 14 shows a two-way ANOVA that was conducted to examine the effects of gender and outpatient department (OPD) on anxiety categories. The results indicated a statistically significant main effect of OPD on anxiety categories, $F(3, 286) = 2.955$, $p = 0.033$. This suggests that anxiety levels differ across the OPD groups. However, there was no significant main effect of gender, $F(1, 286) = 0.382$, $p = 0.537$, indicating that anxiety categories were similar for males and females. Additionally, the interaction effect between gender and OPD was not significant, $F(3, 286) = 0.827$, $p = 0.480$, suggesting that the relationship between gender and anxiety categories did not vary by OPD.

Table 15

Bonferroni Post Hoc Comparisons of Anxiety Categories of respondents Across OPD Departments

OPD Comparison	Mean Difference (I-J)	p-value
Surgery vs. Internal Medicine	0.22	1.000
Surgery vs. Gyni/Obs	-0.13	1.000
Surgery vs. Oncology	-0.58	0.216
Internal Medicine vs. Gyni/Obs	-0.34	0.802
Internal Medicine vs. Oncology	-0.80	0.020
Gyni/Obs vs. Oncology	-0.46	0.665

***Note**: The only significant difference was observed between Internal Medicine and Oncology (p = 0.020).*

Since there was a statistically significant difference is noted among anxiety across OPD groups, a Post hoc comparisons of anxiety categories across OPD departments was run using Bonferroni adjustments. The table shows the mean differences between OPD groups and their respective p-values. A significant difference was found between Internal Medicine and Oncology departments ($p = 0.020$), with patients in the Oncology department reporting higher anxiety levels. All other pairwise comparisons were not statistically significant ($p > 0.05$).

Table 16
Two-Way ANOVA Results of respondents for Stress Categories by Gender and OPD Department.

Source	Sum of Squares	df	Mean Square	F	p-value
Corrected Model	31.166	7	4.452	2.277	0.029
Intercept	1345.006	1	1345.006	687.795	0.000
Gender	0.244	1	0.244	0.125	0.724
OPD	24.265	3	8.088	4.136	0.007
Gender × OPD	6.576	3	2.192	1.121	0.341
Error	559.283	286	1.956		
Total	2154.000	294			
Corrected Total	590.449	293			

Table 16 presents the results of the Two-Way ANOVA examining the effects of gender and OPD department on stress categories. The analysis revealed a significant main effect of OPD ($F(3, 286) = 4.136$, $p = 0.007$), indicating that stress levels significantly differ across the four OPD departments. However, gender did not have a significant effect on stress categories ($F(1, 286) = 0.125$, $p = 0.724$), and the interaction between gender and OPD department was not significant ($F(3, 286) = 1.121$, $p = 0.341$). The model explained 5.3% of the variance in stress categories (Adjusted $R^2 = 3.0\%$).

Table 17
Bonferroni Post Hoc Comparisons of Stress Categories of respondents Across OPD Departments.

OPD Comparison	Mean Difference (I-J)	p-value
Surgery vs. Internal Medicine	0.22	1.000
Surgery vs. Gyni/Obs	-0.13	1.000
Surgery vs. Oncology	-0.58	0.216
Internal Medicine vs. Gyni/Obs	-0.34	0.802
Internal Medicine vs. Oncology	-0.80	0.020
Gyni/Obs vs. Oncology	-0.46	0.665

Table 17 presents the results of the Bonferroni post hoc comparisons for stress categories across different OPD departments. A significant difference was found between Internal Medicine and Oncology ($p = 0.020$), with Oncology patients reporting significantly higher stress levels compared to those in Internal Medicine. Other pairwise comparisons were not statistically significant ($p > 0.05$).

CHAPTER 5: DISCUSSION

The primary objective of this study was to determine the prevalence of Depression, Anxiety, and Stress among patients seeking outpatient treatment at Tikur Anbessa Specialized Hospital and explore the influence of socio-demographic factors.

The findings indicate that a significant proportion of outpatients at TASH are experiening varying levels of depression, anxiety, and stress (DAS). With a prevalence 65.3%, 60.8%, and 70.1% of Depression, anxiety and stress levels respectively.

5.1 Prevalence and Level of Depression, Anxiety and Stress among outpatients at TASH

The findings of this study highlight that the majority of outpatients experience some level of DAS. Particularly, 26.5% experienced extremely severe depression, 14.6% experienced extremely severe anxiety, and 18.0% experienced extremely severe stress.

On the other side, several international and national studies reported a much lower prevalence of DAS than when compared to the current study. For instance, the finding of the prevalence of DAS in this study was more than twice than the pooled global prevalence done during the pandemic(Mahmud et al., 2022), it is also twice higher than studies done on healthy populations(Grover et al., 2017) even more interestingly, the prevalence of outpatients at TASH is more than twice when compared to populations affected by war(Lim et al., 2022).

Elevated levels of depression, anxiety, and stress (DAS) in healthcare settings, compared to the general population, align with international studies. For example, a study conducted in China reported prevalence rates of 63.3% for anxiety and 75.1% for (Yang et al., 2021).

Some socio-demographic factors were revealed to significantly affect DAS levels, one such factor is marital status, the analysis revealed that Divorced/widowed individuals reported higher levels of depression (mean difference = -6.276, p = .027), anxiety (mean difference = -4.793, p = .047), and stress (mean difference = -5.800, p = .014) compared to singles and married individuals. This aligns with other international studies for instance, a study that studied associations between relationship status and mental well-being in different life phases found out marriage or intimate relationship is associated with better mental wellbeing while being divorced/widowed was associated with depression and/or low self-esteem(Grundström et al., 2021). This finding suggests the value of social support for mental wellbeing.

Another Socio-demographic factor that had a significant impact is monthly income with an indication that lower monthly income being associated with higher levels of depression and stress, with a significant difference observed between those earning less than 5000 Birr and those earning more (depression: F(2, 291) = 7.107, p = .001; stress: F(2, 291) = 7.326, p = .001). this also is consistent with other studies, for example a study that analyzed the socioeconomic status of participants with the level of anxiety/depression found that low-income respondents had larger mental health burden in anxiety and depression(Qian et al., 2023).

On the other hand, age group and education level where not show statistically significant differences in DAS levels did. Although other studies have sometimes found that younger or less-educated individuals report higher levels of mental health issues, this was not observed in this study. The reason for this could that the outpatient population at TASH may face similar stressors related to their physical illnesses, or the presence of DAS led them to physical illness, which may overshadow differences in age or educational background.

Overall, these findings underscore the importance of addressing the mental health needs of outpatients, the need to integrate mental health care with the current healthcare system is crucial in addressing these mental health issues.

The findings of this study indicate that the outpatient department (OPD) plays a significant role in influencing anxiety and stress categories, while depression categories show only marginal differences across OPD groups. Specifically, patients in the Oncology department reported significantly higher levels of anxiety and stress compared to those in Internal Medicine. These results suggest that certain OPD groups may face unique mental health challenges due to the nature of their illnesses and treatments.

International and national studies have highlighted similar trends, where patients in specialized healthcare settings report higher levels of DAS compared to the general population. For instance, the elevated levels of anxiety and stress observed among Oncology patients align with findings from a study in the United States, which reported heightened anxiety in cancer patients due to uncertainty and fear associated with their diagnosis(A. Pitman et al., 2018).

The results emphasize the need for targeted mental health interventions in high-risk OPD departments, such as Oncology, to address the elevated anxiety and stress levels. Integrating mental health services into routine outpatient care, particularly for departments handling severe or chronic illnesses, could improve the psychological well-being of patients and enhance overall treatment outcomes.

5.2 Study limitations

Despite the significant findings, this study has limitations. The self-reported measures of mental health may introduce biases. Additionally, the study was conducted in a single hospital, which may limit the generalizability of the findings to other healthcare settings in Ethiopia.

CHAPTER 6: SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 Summary

The study's main purpose was to determine the prevalence and severity of depression, anxiety, and stress (DAS) among outpatients at Tikur Anbessa Specialized Hospital (TASH). Additionally, the study sought to explore how demographic factors such as age, marital status, educational status, income level, and duration of illness contributed to differences in DAS.

A quantitative research approach was used to achieve these objectives, with data collected from 294 outpatients. Descriptive statistics were used to summarize the socio-demographic characteristics of the participants. To examine the relationships between DAS (depression, anxiety, and stress) and socio-demographic factors, inferential statistical methods, including one-way ANOVA, two-way ANOVA, post-hoc comparisons, and t-tests, were applied.

The results revealed that 65.3% of participants experienced depression, 60.8% experienced anxiety, and 70.1% experienced stress. The analysis indicated a statistically significant difference in the levels of DAS based on marital status, with divorced or widowed individuals reporting significantly higher levels of depression, anxiety, and stress compared to single or married individuals. There was also a significant difference in DAS levels based on monthly income, where lower-income individuals reported higher levels of depression and stress. Additionally, DAS levels varied across outpatient departments (OPD). Patients in the Oncology department exhibited significantly higher anxiety and stress levels compared to those in Internal Medicine, while no significant differences were observed between other OPD groups.

6.2 Conclusion

In conclusion, this study demonstrates a high prevalence of DAS among outpatients at TASH, particularly among divorced or widowed individuals and those with lower income. The

findings also highlight significant variations in anxiety and stress levels across outpatient departments, with patients in the Oncology department reporting the highest levels of mental distress. This suggests that a substantial portion of patients, already struggling with physical health challenges, are concurrently burdened by poor mental well-being. To address this dual burden, future research should explore interventions tailored to the specific needs of high-risk groups, including individuals with lower income, those facing marital challenges, and patients attending departments such as Oncology.

6.3 Recommendation

The high prevalence of DAS among outpatients and emphasizes the importance of integrating mental health support into outpatient care. Since the patients are already seeking help, and a working system of health care is already present, integrating mental health care into the health care system into existing system could be a cutting-edge management to mental health problems. This can be done

- Health service providers should screen for mental health disorders during triage to enable early identification and personalized treatment, focusing on vulnerable groups such as widowed individuals, low-income patients, and those in high-stress outpatient departments.
- Healthcare professionals, such as counselors and social workers, should provide targeted psychological interventions, including group counseling and support programs, tailored to the unique needs of vulnerable populations.
- Professionals working closely with vulnerable groups, including counselors, social workers, and health workers, should understand the contributing factors to

depression, anxiety, and stress to modify these problems and promote psychological health.

- Policymakers and community leaders should integrate mental health services into Ethiopia's community-based health insurance and implement psychoeducation programs to reduce stigma and encourage help-seeking behavior.

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APPENDICES

Appendix A: Questionnaires in English

ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

SCHOOL OF PSYCHOLOGY

Questionnaires for outpatients

Research Title: - Prevalence of Depression, Anxiety, and Stress among people seeking treatment at an outpatient level at TASH

Introduction:
The main objective of this survey is to assess the mental health status of outpatients at Tikur Anbessa Hospital in Addis Ababa, specifically focusing on conditions such as depression, anxiety, and stress-related issues.

Since your responses to the questions in this survey are critical, I kindly ask you to provide truthful and clear answers to all the questions. Dear participants, when completing this survey, you are not required to provide your name. The study will analyze the information collected in this manner to suggest solutions for the relevant issues.

Thank you very much for taking the time to cooperate and complete this survey!

Consent to participate in the study (Signature) _____

Participant Identification Number _____

Part I - Socio demographic information

1. Age: _____
2. Gender: Male ☐ Female ☐
3. Marital Status: Single ☐ Married ☐ Divorced/Separated ☐
4. Educational Level: Illiterate ☐ Primary School ☐ Secondary School and Above ☐
5. Religion: Orthodox ☐ Islam ☐ Protestant ☐ Other ☐
6. Duration of illness for which you sought outpatient care:

   Less than 5 years ☐ 6-10 years ☐ More than 10 years ☐
7. Monthly Income:

   Less than 5000 Birr ☐ 5000-15,000 Birr ☐ More than 15,000 Birr ☐

Part two

DASS-21

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

The rating scale is as follows

0 Did not apply to me at all

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 time

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

Number	Questions	0	1	2	3
1.	I found it hard to wind down				
2.	I was aware of dryness of my mouth				
3.	I couldn't seem to experience any positive feeling at all				
4.	I experienced breathing difficulty (eg, excessively rapid breathing. breathlessness in the absence of physical exertion)				
5.	I found it difficult to work up the initiative to do things				
6.	I tended to over-react to situations				
7.	I experienced trembling (eg, in the hands)				
8.	I felt that I was using a lot of nervous energy				
9.	I was worried about situations in which I might panic and make a fool of myself				
10.	I felt that I had nothing to look forward to				
11.	I found myself getting agitated				

12.	I found it difficult to relax				
13.	I felt down-hearted and blue				
14.	I was intolerant of anything that kept me from getting on with what I was doing				
15.	I felt I was close to panic				
16.	I was unable to become enthusiastic about anything				
17.	I felt I wasn't worth much as a person				
18.	I felt that I was rather touchy				
19.	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)				
20.	I felt scared without any good reason				
21.	I felt that life was meaningless				

Appendix B: Questionnaires in Amharic

መግቢያ፡ የዚህ መጠይቅ ዋና አላማ በአዲስ አበባ ጥቁር አንበሳ ሆስፒታል የሚገኙ ተመላላሽ ታካሚዎችን የስነልቦና ሁኔታ ማለትም የድብርት ወይም ድባቴ፤ የጭንቀትና ውጥረት ችግሮች ሁኔታ ለመዳሰስ ነው፡፡ ለጥናቱ ግብ እርስዎ በመጠይቁ ላይ የሚሰጡት ምላሽ ወሳኝ በመሆኑ በሁሉም ከፍሎች ላይ ላሎት ጥያቄዎች እውነተኛ እና ግልጽ የሆነ ምላሽ እንዲሰጡ በትህትና እጠይቃለሁ ። ውድ የዚህ ጥናት ተሳታፊዎች ይህንን መጠይቅ በሚሞለበት ጊዜ ስምዎትን መፃፍ አይጠበቅቦትም፡፡ ጥናቱ በዚህ መንገድ የተሰበሰቡ መረጃዎችን መሰረት በማድረግ ለሚመለከተው አካለ የመፍትሄ አቅጣጫዎችን ያስቀምጣል፡፡ ውድ ጊዜዎትን ሰጥተው መረጃውን ለመሙላት ስልተባበሩኝ ከልብ አመሰግናለሁ!

በጥናቱ ለመሳተፍ ፈቃደኝነት የማረጋገጫ ፊርማ _____

የተሳታፊ መለያ ቁጥር_____

ክፍል አንድ፡ አጠቃላይ መረጃ

መመሪያ፡ ለሚከተሉት ጥያቄዎች እያንዳንዱን ጥያቄ በጥሞና በማንበብ ወይም በመዳመጥ፣ በተቀመጠው ሳጥን ውስጥ፡ የ"✓" ምልክት በማድረግ ወይም የተጠየቀውን መረጃ በመጻፍ መልስ ይሰጡ፡፡ ባዶ ቦታ ላይ መሙላት በሚያስፈልግ፡ ተገቢ መልስ ይስጡ፡፡

1. ዕድሜ፡ _____
2. ጸታ: ወንድ ☐ ሴት ☐
3. የ ትዳር ሁኔታ: ያላገባ/ች ☐ ያገባ/ች ☐ የተለያዩ ☐
4. የ ትምህርት ደረጃ፡ ያልተማረ ☐ አንደኛ ደረጃ ☐ ሁለተኛ ደረጃ ና ከዚያ በላይ ☐
5. ሃይማኖት፡ ኦርቶዶክስ ☐ እስልምና ☐ ፕሮቴስታንት ☐ ሌላ ☐
6. ወደ ተመላላሽ ህክምና የዳረጎት ህመም የጊዜ ቆይታ:

ከ5አመታት በታች ☐ ከ 6-10 አመታት ☐ ከ10 አመታት በላይ ☐

7. ወርሃዊ የገቢ መጠን

ከ5000 ብር በታች ☐ ከ5,000-15,000 ብር ☐ ከ15,000 ብር ባላይ ☐

ከፍል ሁለት፡ የ ድባቴ፤ ከባድ ጭንቀት እና ውጥረተ መለኪያ

ከዚህ በታች የተዘረዘሩትን እያንዳንዱን ጥያቄዎች ካነበቡ በኃላ መልስ ነው በማለት የሚመርጡትን ከተዘረዘሩት አራት

አማራጮች ውስጥ በአለፈው አንድ ሳምንት ውስጥ እርሶን በይበልጥ ይገልጻል በማለት የሚመርጡትን የ☒ ምልክት

በማደረግ መልስ ይስጡ፡፡ የ መለኪያ ደረጃ እንደሚከተሉት ተዘርዝርዋል፡

0- **ፈጽሞ የእኔን ሁኔታ አይገልጽም (አልቀበለውም**)

1- **አንዳንድ ጊዜ (አልፎ አልፎ)**

2 - **ብዙ ጊዜ (በተደጋጋሚ)**

3 - **እጅግ በጣም ብዙ ጊዜ (ሁል ጊዜ**)

ቁጥር	*ዐረፍተ-ነገሮች*	0	1	2	3
1.	*መጨነቅ በማቆም ዘና ለማለት ይከብደኝ ነበር*				
2.	*አፌ ሲደርቅ ይታወቀኝ ነበር*				
3.	*ምንም አይነት ጥሩ ስሜት እየተሰማኝ አልነበረም*				
4.	*ለመተንፈስ እቸገር ነበር (ለምሳሌ-ከልክ ያለፈ ቶሎ ቶሎ መተንፈስ፣ ያለምንም አካላዊ እንቅስቃሴ ትንፋሽ ማጣት)*				
5.	*ማንኛውንም ነገር ለማከናወን ተነሳሽነትን አጣለሁ*				
6.	*እንዳንድ ነገሮችን ከተገቢው በላይ አጋንንናለሁ*				
7.	*መንቀጥቀጥ አጋጥሞኛል(ለምሳሌ-እጄ ላይ)*				
8.	*አዕምሮየ ሲወጣጠር ይታወቀኝ ነበር*				
9.	*አንዳንድ አጋጣሚዎች ላይ ተጨንቄ እራሴን እንዳላዋርድ እሰጋ ነበር*				
10.	*ተስፋ የማደርገው ወይም በጉጉት የምጠብቀው ነገር አልነበረም*				
11.	*የመንፈስ መረበሽ ውስጥ እራሴን አገኘዋለሁ*				
12.	*የመዘናናት መንፈስ ውስጥ መግባት ይከብደኛል*				
13.	*የሀዘን ስሜት ይሰማኝ ነበር*				

14.	ከማንኛውም እያደረኩት ከነበረው ነገር የሚያስቆመኝን ነገር መታገስ አልችልም				
15.	ልረበሽ ትንሽ የቀረኝ እንደሆነ ይሰማኛል				
16.	ለማንኛውንም ነገር በጥሩ ስሜት ማየት አቅቶኝ ነበር				
17.	እንደ ሰው ምንም የማልረባ መስሎ ይሰማኝ ነበር				
18.	ትንሽ የሚበቃው እንደሆንኩ ይሰማኛል				
19.	የአካል እንቅስቃሴ በሌለበት የልቤን ድርጊት አስተውል ነበር(ምሳሌ-የልብ ምት መጠን መጨመር፣ የልብ ምት መዝለል)				
20.	ያለምንም ምክንያት ፍርሃት ይሰማኛል				
21.	ህይወት ትርጉም እንደሌው ይሰማኛል				