COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

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Mental Illness Beliefs, Perceived Stigma, and Delayed Help-seeking Behavior Among Psychiatric Patients in Selected Public Hospitals of Addis Ababa, Ethiopia

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Addis Ababa, Ethiopia

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A Thesis Submitted to the School of Psychology of Addis Ababa University in Partial Fulfillment of the Requirements for the Masters of Arts (MA) Degree in Counseling Psychology

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Addis Ababa, Ethiopia

Declaration

I, the undersigned, declare that the work contained in the body of this research thesis is my own original work and has not been submitted for any award. All information from other published and unpublished sources is properly cited and authenticated in accordance with relevant scholarly practice.

Signature Date

Certification

This is to certify that **Tsion Chala** carried out under my supervision of thesis " **Mental illness Beliefs, perceived stigma, and Delayed help-seeking Behavior among psychiatric patients in selected public Hospitals of Addis Ababa, Ethiopia**" The work is original and eligible to be submitted, meeting the requirements for obtaining a Master of Arts in Counseling Psychology.

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Abstract

Delayed help-seeking behavior among individuals with mental illness remains a critical barrier to timely psychiatric intervention, particularly in low-resource settings like Ethiopia, where cultural beliefs, stigma, and socio-demographic factors play a significant role. This study aimed to examine prevailing mental illness beliefs, assess the extent and duration of delayed help-seeking, determine the role of perceived stigma, and identify socio-demographic and clinical factors contributing to delays. A descriptive cross-sectional design was employed, and a total of 399 participants were selected using stratified systematic sampling to ensure diverse representation. Data were collected through standardized questionnaires measuring mental illness beliefs, perceived stigma, and help-seeking behavior. Binary logistic regression analysis was conducted to identify predictors of delay. The findings indicated that many patients perceived mental illness as a form of religious punishment. A majority of respondents agreed with statements reflecting supernatural etiology (M = 3.58, SD = 0.49) and punishment for sin (M = 3.48, SD = 0.50), suggesting that culturally embedded spiritual beliefs strongly influence perceptions of mental illness. The mean scores for supernatural (M = 3.62, SD = 0.31), biomedical (M = 3.64, SD = 0.33), and psychosocial beliefs (M = 3.65, SD = 0.30) indicated moderate endorsement across all domains. The logistic regression model was statistically significant, $\chi^2(16) = 334.78$, $p < .001$, with a Nagelkerke R^2 of .836, indicating strong predictive power. Education level, perceived stigma (Exp(B) = 13,649.66, $p < .001$), and mental illness beliefs (Exp(B) = 31.27, $p = .025$) were significant predictors of delayed help-seeking. Additional factors such as gender, marital status, and place of residence also contributed to the delay.

Overall, the results demonstrate that deeply rooted cultural and religious beliefs, together with perceived stigma, substantially influence patients' decisions to delay professional treatment. These findings emphasize the need for culturally sensitive mental health education, community-based stigma reduction initiatives, and equitable access to psychiatric services. It is recommended that community awareness campaigns utilize media and cultural platforms to promote mental health as a treatable condition and foster public acceptance.

Keywords: Help-seeking behavior, Mental illness beliefs, Perceived stigma, Psychiatric patients, Socio-demographic factors

Chapter One: Introduction

1.1 Background of the Study

Mental health is among the foundations of general health, and the World Health Organization defines it as a state of well-being in which an individual attains his or her own potential, copes with daily stresses, and operates efficiently and makes a positive contribution to society (World Health Organization, 2021). Mental illness involves a set of disorders that affect emotion, cognition, and behavior, such as depression, anxiety disorders, schizophrenia, and bipolar disorder (American Psychiatric, 2022). Although extremely common, mental disorders are under-treated across the globe, particularly in low and middle-income countries (LMICs), with more than 75% treatment gaps (Charlson, 2022). The treatment gap for mental disorders is fueled by a multitude of drivers ranging from culture to stigma, as well as health-seeking behavior. Mental illness concepts encompass the socially and culturally constructed ideas regarding the causes, nature, and treatments of mental disorders (Nguyen, 2023).

These beliefs influence symptom perception and seeking or delaying professional help. For example, in most cultures, mental illness is viewed as being caused by supernatural forces, moral deficits, or personal vulnerabilities, and this deters early utilization of mental health services (Ali, 2021). Questionnaires like the beliefs about mental illness questionnaire have been utilized to measure the prevalence of such beliefs and their effect on behavior (Patel, 2020). Mental health remains a global issue with increasing interest in the psychological, social, and cultural processes that construct individuals' understandings and responses to mental illness. Social skills and emotional regulation lie at the heart of mental health functioning, governing the manner in which individuals manage adversity and interact with others. Emotion regulation, defined as responding or modulating one's emotional experiences such that they match appropriately with situational context, has been both implicated in seeking help and compliance with therapeutic protocols (Gross, 2021). In a similar vein, lack of social skills pertaining to communication, empathetic interpellation, and resolution of conflict might intensify psychiatric symptoms and delayed exposure to treatment modalities (Zhou et al., 2022). These psychosocial processes hold a particular salience for contexts where resources happen to be limiting, whereby beliefs pertaining to stigma cumulatively intersect with a lack of effective mental health services.

Stigma, perceived, is defined for a person such that the belief reflects how society treats or undervalues those suffering from mental illness (Kola, 2021).

Societal beliefs, policies, and internalized self-stigma, which is characterized by shame-related emotions and lack of self-esteem, are especially salient (Thornicroft, 2019). Empirical evidence across the globe consistently documents that this stigma is a barrier to seeking treatment, decreases adherence to treatment plans, and has a detrimental effect on clinical outcomes (Clement, 2023). Perceived devaluation-dis-crimination is a legitimate measure oftentimes employed for texts on mental health when gauging the extent of stigma (Schomerus, 2021). The devaluation-discrimination scale is a standardized measure that has extensively been used in mental health research to assess stigma levels (Schomerus, 2021). Help-seeking behavior, especially for mental health, is defined as the active effort of seeking professional or informal help for psychological distress or illness (Rickwood, 2021).

Delayed professional help seeking during symptoms worsens the severity of the illness and decreases the chances of positive outcomes (Kebede, 2022).

Evidence indicates that perceived stigma and cultural beliefs are among the strongest psychosocial barriers to seeking help globally (Xu, 2022). Globally, where there is increased awareness, mental illness is stigmatized and myths about its cause are common (world health organization, 2021). For instance, recent expansive studies have found that explanation of mental disorders through supernatural causes is prevalent in Africa, Asia, and Latin America, affecting the willingness of individuals to seek treatment (Sebunnya, 2022). The religious heritage of the family influenced their beliefs about mental illness, and they viewed it as a result of moral or spiritual shortcomings.

These are strengthened by stigma in family and community, and they discourage individuals from seeking medical care (Negash, 2021). Evidence indicates that individuals avoid seeking medical treatment in fear of judgment, stigmatization, and subsequently retreat and delay seeking treatment upon visiting public hospitals in Ethiopia (Tesfaye, 2023b). For Addis Ababa, the capital and main center for health, psychiatric treatment is more easily accessible than for rural towns. Delays in help-seeking for mental illness, however, persist (Woldeyohannes, 2022).

Worldwide, studies have shown that attitudes to mental illness have a strong impact on help-seeking behavior.

Mental illness continues to be blamed on spiritual or moral reasons in the majority of societies, and individuals seek assistance from religious or traditional healers rather than medical practitioners (Kola et al., 2021). In Ethiopia, the beliefs are authentic, and mental illness is largely explained by supernatural causation, e.g., spirits or punishment from God (Girma et al., 2022). These records not only delay psychiatric treatment but also reinforce stigma, further discouraging people from coming forward for treatment. Though there is growing awareness, the integration of biomedical and cultural causation continues to be low, with mental health literacy still trailing global standards. At the national level, Ethiopia has done better in scaling up mental health interventions but with challenges.

The National Mental Health Strategy puts strong emphasis on integration into primary care and decentralization, but there are urban-rural disparities, stigma, and cultural fallacies standing in the way of successful implementation (Federal Ministry of Health, 2020). Addis Ababa public hospitals provide treatment to a mixed clientele, but psychiatric patients still come in late because of entrenched beliefs and perceived stigma. Local researchers have begun examining such dynamics, but none has directly investigated how socio-demographic factors, beliefs about mental illness, stigma, and seeking help interact in Ethiopian city contexts. Conceptually, the research borrows the Health Belief Model and Attribution Theory in understanding how people's perceptions of illness and social outcomes affect their behavior.

Empirical evidence confirms that perceived stigma and cultural beliefs are two of the principal barriers to early intervention (Clement et al., 2021; Negash et al., 2023). However, existing literature lacks contextual specificity, with scant attention paid to the particular cultural and social structures that shape mental health in Ethiopia. Also, emotional regulation and social skills while widely researched in Western groups are poorly investigated among Ethiopian communities despite being fundamental for coping and care-seeking. This study bridges such gaps by examining the socio-demographic factors, perceptions, and stigma behind late help-seeking among psychiatric patients in Addis Ababa. Other studies contrast by including both psychosocial and cultural issues to give a broader perspective of care barriers.

In many Ethiopian communities, mental illness is frequently attributed to supernatural causes such as spirit possession, curses, or divine punishment beliefs that lead individuals to seek help from religious or traditional healers before turning to psychiatric services. Additionally, practical barriers such as limited access to mental health professionals, geographic concentration of services in urban centers, and low mental health literacy further delay timely care. Emotional regulation and social coping skills widely studied in Western populations remain underexplored in Ethiopian contexts, despite their critical role in navigating stigma and initiating help-seeking. This study addresses these gaps by examining how socio-demographic factors, culturally embedded beliefs, and perceived stigma contribute to delayed help-seeking among psychiatric patients in Addis Ababa. By situating the problem within Ethiopia's lived realities; the study offers a grounded understanding of both psychosocial and structural barriers to care.

1.2 Statement of the Problem

Mental illness is a serious public health concern in Ethiopia, even in urban cities such as Addis Ababa where psychiatric treatment is relatively more available but care seeking remains delayed. Based on direct observation in selected public hospitals in Addis Ababa, many psychiatric patients present late to mental health care following long durations of morbidity and symptom exacerbation. This delay is influenced by attitudes toward mental illness both by patients and their families, and perceived stigma at both the community and healthcare service level. The reason for the delays of early contact of professional for mental illness may be due to health professional's negative attitudes on it. In this case the patients did not believe they will have good outcomes if they travel to medication on profession (Teshager et al., 2020). In different part of Ethiopia studies done indicates that stigma come due to mental illness which may leads to social exclusion (Minichil et al., 2021). Such beliefs are mostly followed by social stigmatization and internalized discrimination.

The magnitude of the problem is substantial. At the national level, mental health screening and service coverage remain limited, with estimates suggesting that only a small fraction of individuals with mental disorders receive timely diagnosis or care. Another explanation for the delay in seeking medical care is compliance with culturally based beliefs about the long term of illness, and unfulfilling results of treatment (Negash et al., 2023) use of not enough self-

treatment practices, including the use of supernatural causes, i.e., demon possession, evil eye, or divine retribution,

At a country level, mental health screens have conservatively estimated that more than 70% of individuals with mental disorder in Ethiopia did not have the correct and timely attention (Fekadu, 2022). Even in Addis Ababa, where services are more centralized, delays in help-seeking can range from months to years after the onset of symptoms (Woldeyohannes, 2022). These delays lead to higher rates of chronic illness, relapse, disability, and death (Kebede, 2022). Furthermore, perceived stigma is also a major barrier, and many patients hide symptoms or delay help-seeking for fear of social rejection, discrimination, or self-stigmatization (Tesfaye, 2023b).

While pathways to care and stigma have been examined in Southern and Northern Ethiopia, there is limited understanding of the cumulative effect of beliefs about mental illness and perceived stigma on delayed help-seeking in urban psychiatric care. Especially, the public hospitals in Addis Ababa cater to a heterogeneous population with varying cultural backgrounds, socioeconomic status, and access to mental healthcare. Yet, there has been less investigation of how these contextual variables aggregate to affect help-seeking behavior. Additionally, family adaptability, cohesion, and awareness of treatment availability have not been adequately studied as predictors of duration of untreated mental illness (Negash et al., 2023).

Perceived stigma also compounds the problem, acting as a powerful disincentive to early care. The patients tend to fear being stigmatized or discriminated against, which makes them less likely to report symptoms or visit a psychiatrist (Clement et al., 2021). Internalized stigma is characterized by self-stigma and evading, whereas public stigma facilitates the propagation of undesirable stereotypes and social ostracism. Although several studies have investigated individual aspects of stigma alongside beliefs held within a culture, few have investigated their collective influences on help-seeking behaviors within urban public hospitals throughout Ethiopia. As well, little is accurately understood about the contribution of socio-demographic factors such as education, sex, and residence, despite evidence for them influencing health-related behaviors (Negash et al., 2023). Again, variables such as interpersonal skills and emotional regulation, which are crucial for effective coping as much as interpersonal relationships, remain poorly encapsulated under local scholarship. This makes it challenging for

specific interventions to be formulated and shortens the effectiveness of mental health services for catering for the diverse needs of patient groups across diverse locations.

The presented gap should be addressed for the derivation of culturally appropriate and contextually relevant interventions for early care access. Without such evidence, DUP reduction strategies, as well as psychiatric outcome improvement strategies, might prove inefficient or not proportionate to local realities. For this reason, the presented study aims at filling such a gap with the assessment of common beliefs relating to mental illness, perceived stigma, and socio-demographic determinants of help-seeking delay among psychiatric patients from Addis Ababa. Based on a combination of empirical evidence and theoretical work, the study aims at providing a comprehensive analysis of the barriers towards early psychiatric care. The results will inform the derivation of culturally appropriate interventions, anti-stigma programs, and policy changes for the promotion of early care access, as well as the enhancement of mental health outcome among the urban population living in Ethiopia.

1.3 Objective of the Study

1.3.1. General Objective

The general objective of this study is to assess the influence of mental illness beliefs and perceived stigma on delayed help-seeking behavior among psychiatric patients attending selected public hospitals in Addis Ababa.

1.3.2. Specific Objectives

More specifically, this study intends to:

1. To analyze the dominant cultural, spiritual, and biomedical beliefs about mental illness held by psychiatric patients in selected public hospitals, and assess how these beliefs influence their perceptions of treatment and recovery.
2. Identify the extent and duration of delayed help-seeking behavior among psychiatric patients.
3. Determine the association among mental illness beliefs, perceived stigma, and delayed help-seeking behavior.

4. Investigate socio-demographic factors that contribute to help-seeking delays in the study population.

1.4 Research Questions

1. What are the dominant cultural, spiritual, and biomedical beliefs about mental illness held by psychiatric patients in selected public hospitals, and how do these beliefs influence their perceptions of treatment and recovery?
2. What is the magnitude and average duration of delayed help-seeking behavior among psychiatric patients in the selected hospitals?
3. How are mental illness beliefs and perceived stigma associated with delayed help-seeking behavior?
4. Which socio-demographic factors influence the delay in seeking mental health care among the study population?

1.5 Significance of the Study

This study is significant in the sense that it addresses critical barriers to timely and effective mental health treatment for patients with psychiatric disorders in Addis Ababa, where delayed help-seeking is the underlying motivator of worse mental health outcomes.

In its investigation of help-seeking behavior related to mental illness views and perceived stigma, the study offers a clearer understanding of the barriers to early intervention. These findings are useful for mental health professionals and policymakers in Ethiopia. They can help create interventions that effectively reduce stigma and eliminate misinformation about mental illness. These programs can improve mental health knowledge in communities and foster supportive environments that allow people to seek professional help without fear of being stigmatized.

Additionally, the resource focuses public education efforts and health promotion programs on Addis Ababa's cultural context. This approach aims to make it easier for individuals to access mental health services promptly and address treatment disparities. The resource also establishes a starting point for future research on stigma and mental health attitudes in urban Ethiopia.

By addressing a significant gap in the literature regarding the connections between perceptions of mental illness, stigma, and delays in seeking help at public hospitals, this study contributes to

knowledge and practice in mental health. It aligns with Ethiopia's national policy framework and the WHO Mental Health Action Plan.

Lastly, the findings provide a foundation for future research by identifying aspects of stigma and belief systems that need further exploration across different populations and healthcare settings. Long-term studies could investigate causal relationships, while research focused on interventions could assess methods to reduce stigma and promote help-seeking behavior. By extension, then, the current study adds not just to practice but also to scientific investigation as well as policy deliberation across mental health system research.

For Counseling Psychology, this study offers valuable insights into the cultural and psychological barriers that hinder timely help-seeking among psychiatric patients. By uncovering how beliefs about mental illness and perceived stigma delay intervention, the findings equip counseling psychologists with culturally grounded knowledge to design more empathetic, context-sensitive therapeutic approaches. The study also highlights the need for psychoeducation and stigma reduction strategies that align with local belief systems, enabling counselors to build trust and promote early engagement. Furthermore, it underscores the importance of integrating emotional regulation and social skills training into counseling frameworks tailored for Ethiopian communities, where such dimensions remain underexplored.

1.6 Scope of the Study

The research aims at beliefs about mental illness, perceived stigma, and their relationship with delayed help-seeking behavior among Amanuel Mental Specialized Hospital and Eka Kotebe General Hospital. The research is limited to adult patients (age ≥18 years) diagnosed with mental illness disorders and applying for outpatient or inpatient psychiatric treatment.

The sample does not encompass those who are undergoing mental health care from private facilities, traditional healers, and religious sectors, besides those below the age of 18 years in order to sustain the emphasis within the public hospital setting and adults.

The study also refers to potential limitations on self-reported data, i.e., symptom onset experience recall bias and seeking help. The study was also not generalizable to other rural hospitals or settings since Addis Ababa is an urban setting.

1.7 Operational Definitions

Mental Illness Beliefs: Refers to personal, cultural, or societal conceptions and knowledge about the etiology, nature, and treatment of mental illness as conceived and believed by psychiatric patients. These include such beliefs as biomedical, spiritual or supernatural etiologies, and mental illness attitudes (Girma et al., 2022).

Perceived stigma: suggests individuals' awareness of unfavorable attitudes towards mental illness in the community. It was measured using the Perceived Devaluation-Discrimination Scale (Link et al., 1987), which assesses what most people presumably believe about individuals with psychiatric illnesses.

Delayed Help-Seeking Behavior: It is the time lag between psychiatric symptom onset and first contact with a mental health practitioner. It was assessed by self-reported duration in months, operationalized as early (<1 month), moderate (1–6 months), or delayed (>6 months), according to criteria adapted from Rickwood et al. (2007).

Psychiatric Patients: Psychiatric patients in the study refer to individuals with clinically diagnosed mental illnesses and treated at public hospitals. The inclusion was based on clinical diagnosis recorded by resident psychiatrists, based on DSM-5 criteria (American Psychiatric Association, 2013).

Public Hospitals: Public hospitals refer to government-owned health facilities providing psychiatric care. In the current study, they include Addis Ababa-based hospitals within the Ministry of Health, selected based on their accessibility and patient volume.

Chapter Two: Related Literature Review

This chapter provides a review of current research on mental illness beliefs, perceived stigma, and help-seeking behavior, the key concepts of this study. The review uses international, regional, and local research evidence to provide an in-depth understanding of these factors and their interrelation. Through the integration of empirical evidence and theoretical rationale, this chapter indicates areas of knowledge deficit and justifies the focus of the present study among psychiatric patients in Addis Ababa.

2.1. Conceptual Definitions

2.1.1. Mental Illness Beliefs

Beliefs about mental illness are the result of a complex interplay of individual, social, and cultural determinants. Such beliefs impact what one learns about symptoms, constructs mental health disorder, and help-seeking. According to Choudhry et al. (2016), mental health literacy, referring to knowledge and beliefs about mental disorder and treatment, is most likely a product of personal experience, cultural stereotyping, and exposure to individuals with a mental illness. Mental illness in the majority of cultures is not necessarily read through the biomedical model but most commonly understood as the result of supernatural, moral, or spiritual agencies. These accounts are susceptible to misinformation about the causation of mental disorders and encourage stigma, which impacts the duration to seek proper care.

In Ethiopia and other nations of this category, traditional definitions of mental illness are most frequently founded on spiritual causation such as demon possession or God's punishment. These kinds of beliefs may lead individuals to seek the help of religious leaders or traditional healers before seeking the services of psychiatry.

Illness beliefs encompass causal attributions (what people see as the causes of mental illness), efficacy of treatment, prognosis, and controllability of symptoms beliefs (Angermeyer & Dietrich, 2006; Keyes et al., 2019). Such beliefs in cultures such as in Ethiopia are deeply entrenched in religious, spiritual, and communal knowledge and play a significant role in shaping help-seeking behavior.

2.1.2. Global Perspectives on Mental Illness Beliefs

Around the world, it has been shown through research that beliefs surrounding mental illness are extremely context-specific and multifaceted. In wealthier countries, there has been a consistent trend towards biomedical explanation of mental illness, emphasizing genetic, neurochemical, or psychosocial causes (Corrigan et al., 2016; Yang et al., 2020). Even in these settings, however, hybrid beliefs are prevalent, combining biomedical and moral or spiritual accounts (Liddell et al., 2021).

Mental illness belief varies widely between cultures, influencing symptom interpretation, stigma perpetuation, and acceptability of treatment. In Western cultures, mental illness has been understood by the biomedical model with an openness to psychological interventions like cognitive behavioral therapy and medication (Rathore, 2025). Public health campaigns and the self-help movement have reduced stigma and increased help-seeking behavior. But even within Western contexts, inequality by socioeconomic status, race, and access to treatment shows that perceptions are not evenly distributed even within a region.

Compared to most Eastern cultures, which see mental illness in the context of collectivist values where mental illness may be seen as family honor or social conformity. This can lead to higher stigma and avoidance of professional intervention, patients turning towards conventional healing methods such as herbal medicine, acupuncture, or religious rituals (Rathore, 2025). For example, in Japan, the syndrome of hikikomori extreme social withdrawal—is worldwide misinterpreted and under-treated due to cultural privacy and shame norms. Translating traditional care into formal care systems has been promising in sustaining bridges of culture and improving outcomes in treatment (Lee, 2025).

Indigenous and community-based models add another dimension by emphasizing holistic and spiritual dimensions of mental health. Mental health in most Indigenous communities is perceived to be related to nature respect, community, and ancestral ways. Therapeutic treatment may include rituals, storytelling, and community support rather than clinical treatment (Rathore, 2025). Globally, the World Health Organization (2022) envisions people-centered, culture-sensitive mental health care with respect for locally held belief and greatest universal access to

care. It is necessary to understand these different perceptions to devise inclusive mental health policy that maintains cultural identity while reducing stigma and enhancing outcomes.

Causality beliefs are especially relevant to help-seeking. An international analysis by Thornicroft et al. (2019) emphasized that individuals who attribute mental illness to supernatural or personal weakness don't go to professional services, while individuals who attribute mental illness to psychosocial or biological reasons avoid or delay help. In the same way, Keyes et al. (2019) established that individuals who had attitudes that mental illness resulted from brain disease or stress reported greater levels of help-seeking intention than individuals whose attitudes were that it resulted from divine punishment or moral failure.

2.1.3. Mental Illness Beliefs in Africa

Mental illness remains deeply understood in cultural or religious terms in the majority of African countries. Supernatural causation like possession by spirits, witchcraft, anger of ancestors, or curses dominates the overwhelming majority of sub-Saharan Africa (Mendenhall et al., 2020). Such beliefs prevail not only within the members of the community but also among religious practitioners, teachers, and health personnel and thus result in a delay in seeking formal treatment and the quest for traditional or religious healing.

In a study carried out in Malawi by Chorwe-Sungani et al. (2020), over 60% of the respondents believed that mental illness resulted from supernatural or spiritual causes, and over 70% would rather opt for faith healing than attend visits to psychiatric hospitals. In Nigeria, Adeosun et al. (2021) found that supernatural power causal explanations were significantly associated with non-medical treatment preferences and delayed help-seeking.

These observations are central to understanding how models of illness within culture influence behaviors in low-resource settings. Where religious belief constrains belief in mental illness, formal care may be something individuals see as unnecessary or not a good thing.

2.1.4. The Ethiopian Context: Cultural Interpretations and Beliefs

In Ethiopia, religious and cultural beliefs strongly shape perceptions of mental illness and lean towards explaining a combination of spiritual, social, and biomedical etiologies. Tesfaye et al. (2022) in a national qualitative synthesis established that in different parts of Ethiopia, the

majority believed that mental illness is explained by supernatural causes such as evil spirits, witchcraft, or God's wrath. They directly influence treatment-seeking behavior, sometimes delaying biomedical intervention in favor of holy water, exorcism, or other forms of traditional treatment.

In Addis Ababa, a community-based study identified 50.3% of the study population having negative attitudes towards mental illness, the determinants of which were age, occupation, and peer (Asmamaw et al., 2022). In southern Ethiopian university students, nearly 44% of them were of the opinion that mental illness was due to spirit possession, and almost 60% of them chose traditional healing over biomedical healing (Kerebih et al., 2021). These are results even more important considering the fact that even among educated individuals, cultural and religious factors regarding mental illness persist.

Negative attitudes towards mental illness among 45.8% of community respondents were documented in another study conducted in Southwest Ethiopia. Such attitudes were directly associated with lower exposure to information, rural residence, and subprimary education level (Fekadu et al., 2023). Such attitudes result not only in stigma but also in denial of mental illness or proper care.

2.1.5. Impact of Mental Illness Beliefs on Help-Seeking Behavior

Cultural beliefs also do not function in isolation but have a direct impact on personal and collective health-seeking decision-making. In Ethiopia, for instance, religious explanations have consistently been linked with less help-seeking for psychiatric care and more utilization of informal or traditional sources of help (Hailemariam et al., 2020). For instance, in a study among Addis Ababa's patients with major depressive disorder, witchcraft or divine retribution as the etiology of the disorder predicted greater than average time before the patient consulted formal psychiatric care (Gebreegziabher et al., 2022).

The Ethiopian mental health care pathway also depends on the individuals' belief in the curability of mental illness. If mental illness is believed to be non-curative or caused by non-biological factors, patients or their family members might not seek medical attention. Hence, this belief dictates prognosis because late treatment evolves into more severe and chronic mental illness forms (Ayano et al., 2020).

Thus, Ethiopian mental illness beliefs especially spiritual attributions remain significant barriers to early and sufficient help-seeking. These should be addressed through targeted mental health literacy campaigns, culturally appropriate health education, and integration of the traditional and biomedical systems of care.

2.1.6. Perceived Stigma Related to Mental Illness

Perceived stigma is an individual's expectation or perception of negative social judgment, discrimination, or devaluation based on his/her mental illness status (Link et al., 2019). It differs from public stigma prejudice by the general public and self-stigma, where the negative beliefs are internalized by the individual involved (Livingston & Boyd, 2010). Perceived stigma is a significant barrier to help-seeking, treatment adherence, and social integration for people with mental illness worldwide (Yang et al., 2020).

2.1.7. Global Evidence on Stigma as a Barrier

Meta-analytic evidence confirms that stigma perceptions substantially decrease mental health service utilization and worsen outcomes across a variety of settings. Clement et al. (2015) determined that in the prediction of treatment delay across the globe, some of the most robust predictors are fear of stigma, including fear of discrimination, social rejection, and labeling. (Thornicroft, 2019) also argue that stigma remains a "fundamental cause" of health inequalities since not only does it impede access but also heightens psychological distress and social isolation.

Contemporary literature takes advantage of the multi-dimensionality of stigma. An example is a UK longitudinal study showing that perceived stigma leads to symptom concealment, reduced social support, and deteriorating mental health outcomes in the long term (Knaak et al., 2020). In addition, intersectionality of stigma with factors such as race, gender, and socioeconomic status introduces levels of sophistication, especially for marginalized groups (Hatzenbuehler et al., 2022).

2.1.8. Stigma in African and Ethiopian Contexts

In African countries, perceived mental illness stigma is usually exacerbated by beliefs within cultures that associate mental disorders with moral failure or punishment from God (Abayneh et

al., 2021). Widely cited throughout sub-Saharan Africa are reports of stigma levels ranging from 40% to over 80%, varying with the population and measure (Moussa et al., 2021).

In Ethiopia, stigma burden is mostly high in psychiatric patients. In a cross-sectional study done at Amanuel Psychiatric Hospital, Addis Ababa, it was revealed that almost 83.5% of schizophrenia spectrum disorder patients had high levels of perceived stigma (Alemayehu & Gebeyehu, 2021). In a study done in mood disorder patients, 62% of them had moderate to severe internalized stigma, which was linked with non-adherence to medication and social withdrawal (Girma et al., 2022).

Qualitative research pays greater attention to the real lived experience of stigma in Ethiopia. Patients describe common fears of stigma among families and communities, including exclusion from social events, loss of jobs, and decreased marriage opportunities (Yohannes et al., 2022).

2.1.9. Effects of Perceived Stigma on Disclosure, Social Support, and Treatment Delay

There is evidence that stigmatization causes symptoms to be concealed from intimate social contacts and therefore limited informal social support and professional care (Earnshaw & Quinn, 2019).

Social support and stigma are both victimized in Ethiopia. Girma et al. (2022) found that those patients who faced higher perceived stigma also reported lower social support, which alone predicted longer initial delays in psychiatric help-seeking. Such a trend among circles shows that stigma not only creates delays in first-time help-seeking but also harms follow-up treatment continuation and recovery.

Furthermore, felt stigma influences help-seeking behavior. Patients delay or avoid attending psychiatric hospitals because they fear labeling and stigmatization. A mixed-methods study in Addis Ababa identified fear of stigma as a strong determinant of delayed mental healthcare among over half of the respondents (Asrat et al., 2023). Delayed help-seeking causes adverse clinical outcomes, such as worsening symptoms and hospital stay (Yohannes et al., 2022).

2.1.10. Help-Seeking Behavior in Mental Health

Mental health help-seeking behavior is the manner in which people recognize symptoms of mental distress and act to access informal or formal sources of care to get help (Rickwood & Thomas, 2012). It is a multifaceted, multi-dimensional concept that is mediating by social, economic, cultural, and structural influences that signal if and when a person accesses mental health services (Mojtabai et al., 2020).

Mental illness help-seeking behavior is the way by which an individual identifies a mental disorder and attempts to seek treatment or help. It is a high proportion of individuals who are mentally ill but fail to come forward for assistance, or seek help at an extremely delayed point (Doll et al., 2021). The most common reasons for help-seeking delay are shame, stigma, and incorrect misconceptions regarding mental illness. Functional disability i.e., disruption of everyday life or interpersonal relationships has been the strongest predictor of help-seeking, which accounts for the fact that individuals wait handicapped horribly before doing something about it (Doll et al., 2021).

Cultural and gender expectations also exert a strong impact on help-seeking. For instance, men and individuals from affluent backgrounds are less likely to pursue professional intervention even if they present extreme symptoms (Oliver et al., 2005). Most cultures consider mental illness a flaw in character and not sickness, and this dissuades openness and early intervention. Inadequate informal lay support networks, such as family and friends, are typically the first to respond but may be information or facility poor to guide individuals into appropriate care (Angermeyer et al., 2001). Promising interventions with young adults and men, in particular, have been proposed for enhancing help-seeking behavior.

Help-seeking behavior globally must have a concerted response that overcomes psychological, social, and structural barriers. Public education programs that expose individuals to mental illness and early intervention can reduce stigma and increase awareness. Similarly, integrating mental health care into community locations and low-threshold entry points such as online forums or peer networks can make help-seeking more accessible (NeuroLaunch, 2024). It is essential to know the patterns and predictors of help-seeking in the development of interventions

that do not only encourage people to seek help but also guarantee that the help they receive is early, culturally relevant, and effective.

2.1.11. Conceptual Models of Help-Seeking

Rickwood and Thomas (2012) proposed a three-stage model of help-seeking: (1) awareness and recognition of symptoms, (2) intention to seek help, and (3) choice of help source. Other behavioral theories, such as the Health Belief Model and Theory of Planned Behavior, have also been used in help-seeking to highlight the role of perceived barriers, social norms, and intentions in predicting behavior (Biddle et al., 2020). These theories recognize that even when people realize they need help, timely use of services may be affected by social stigma, low mental health knowledge, and structural barriers.

2.1.12. Global Patterns and Influencing Factors

Worldwide, most people with mental illness do not seek help from health professionals, especially in low- and middle-income countries (LMICs). According to the World Health Organization (WHO, 2022), more than 75% of individuals with mental illness in LMICs never receive appropriate care, a situation often referred to as "the treatment gap." Several factors influence help-seeking globally:

Cultural beliefs: Many people turn to traditional healers or religious leaders instead of seeking biomedical care due to supernatural and spiritual views on mental illness (Adewuya et al., 2019).

Stigma and discrimination: Fear of social rejection leads to nondisclosure and a lack of use of mental health services (Clement et al., 2015).

Knowledge and literacy: A lack of understanding of mental illness symptoms and available treatments discourages people from seeking help (Jorm, 2019).

Structural and economic barriers: Access to services, transport, and affordability significantly affect the use of services, particularly in rural and less-developed areas (Saraceno et al., 2020).

Age and gender are also relevant. Women tend to seek help more often than men, although this varies by culture (Vogel et al., 2018). Young people often delay treatment due to fear of stigma and concerns about confidentiality (Gulliver et al., 2019).

2.1.13. Help-Seeking Behavior in Low- and Middle-Income Countries

The below studies have reported use of informal sources like family, traditional healers, and religious figures delaying or replacing biomedical care (Mendenhall et al., 2020).

African systematic review confirmed that less than 30% of individuals experiencing common mental disorders accessed formal mental health treatment, and help-seeking was strongly influenced by explanatory models and stigma (Atilola et al., 2021). Enhancing mental health literacy and involving traditional healers within referral chains have been shown to be successful in dealing with delays (Gureje et al., 2020).

2.1.14. Ethiopian Evidence on Help-Seeking Patterns and Barriers

Ethiopia is not an exception to such global and regional patterns, and there is notably delayed help-seeking among the psychiatrically ill. Hailemariam et al., (2020) confirmed that close to 60% of patients presenting at psychiatric clinics presented with delayed treatment for more than six months from when their symptoms began. The research identified stigma, spiritual causation beliefs, unawareness, and poor accessibility as the key barriers.

In consequence, Tesfaye et al. (2022) documented that the majority of the patients first visited religious centers or traditional healers prior to formal psychiatric consultation, in the wake of delays and worsening of symptoms. The rural residents and the less educated were in greatest risk of delayed treatment.

A recent qualitative article by Asrat et al. (2023) from Addis Ababa indicated that anxiety regarding stigma and perceived ineffectiveness of biomedical interventions discouraged initial seeking of help.

2.1.15. Factors for Delayed Help-Seeking

Socio-Demographic Factors

They encompass variables such as age, sex, marital status, educational level, income, occupation, and place of residence. These socio-demographic determinants of mental illness in mental illness research are vital in defining inequality in access, use, and outcome of psychiatric care (World

Health Organization [WHO], 2022). They are descriptive variables and predictors of health behavior and service use.

Age as Socio-Demographic Variable

Age is amongst the substrates of demographic factors that influence mental health and help-seeking. Youth will be amenable to going to see a psychologist, whereas older people suffer age-related stigma and informal care (Kola et al., 2021). In Ethiopia, variations in mental health literacy as an artifact of age and culturally derived assumptions may closely regulate when and where one accesses care, especially in urban regions like Addis Ababa.

Gender and Mental Health Access

Gender has a strong impact on mental health experience. Women access help for psychological distress more than men, and the latter avoid care because of masculinity and social expectations of oppression (Negash et al., 2023). For the Ethiopian case, gender roles will impact perception of mental illness and seeking care in such a way that men will avoid seeking help due to stigma and criticism.

Social Support and Marital Status

Marital status usually walks in tandem with social support measurements, which may in turn function as a protective factor for mental health issues. Married individuals are likely to enjoy more economic and emotional support, but unmarried, divorced, or widowed individuals are alone and become vulnerable (Zhou et al., 2022). In Addis Ababa, marital status has been found to be related to help-seeking behavior since individuals with unstable relationships would postpone psychiatric treatment.

Education Level and Health Literacy

Education is a suitable socio-demographic variable upon which attitudes towards treatment, stigma awareness, and mental health literacy are founded. Increased levels of education are usually associated with more mental health knowledge, but in an ironic twist, many studies have shown that highly educated individuals are more likely to postpone help-seeking on the grounds

of internal stigma or self-management (Girma et al., 2022). This subtlety explains why particular psycho education at different levels of education is so critical.

Home and Access to Services Geographic location

Urban vs. rural also affects mental health care access. Urban residents are more reachable for psychiatric treatment but are also more susceptible to social stigma as well as anonymity. Rural populations rely on traditional healing due to infrastructure lack (WHO, 2022). Addis Ababa still has disparities at the city level with patients from disadvantaged groups unable to access care in time and at an affordable cost.

Economic and Income Barriers

Payment for mental health interventions, transport, and medication is income-dependent. Financial constraints are a frequently cited help-seeking barrier, especially among low-income countries (Clement et al., 2021). Subsidization of mental health care in Ethiopia is in progress, yet out-of-pocket and indirect expenses deter many from accessing intervention in a timely manner.

Occupation and Psychosocial Stressors

Occupation has both direct and indirect influences on mental health. Working in jobs with high levels of stress, unemployment, or working informally may contribute to psychological distress and influence help-seeking. Unemployed individuals and informal workers usually do not have insurance and social protection in Ethiopia, and psychiatric services are less accessible (Negash et al., 2023). Occupational status also intersects with other socio-demographic characteristics, and that makes it less strong.

2.2. Theoretical Framework

Explanation of interaction between mental illness beliefs, perceived stigma, and delay in seeking help requires a sound theoretical foundation. The three theories have been utilized in this research: the Health Belief Model (HBM), the Theory of Planned Behavior (TPB), and Stigma Theory. The theories as a whole provide a comprehensive explanation of why an individual will

avoid or delay seeking professional psychiatric care, particularly in sociocultural sensitive settings like Ethiopia.

2.2.1 Health Belief Model (HBM)

Health Belief Model (HBM), initially developed by Rosenstock in the 1950s and since revised, assumes that individual health behavior depends on susceptibility, severity, benefits, barriers, cues to action, and self-efficacy (Champion & Skinner, 2008). In psychiatry, HBM has been applied to explain why individuals visit or do not visit psychiatric clinics, particularly in those cultures where mental illness is highly stigmatized or accounted for on non-biomedical reasons.

Recent application of HBM in psychological health studies illustrates how perceived barriers, such as stigma, spiritual cause of illness, or side effects of treatment, reduce help-seeking to a significant degree (Chikomo et al., 2021). In LMICs, individuals do not even consider themselves to be susceptible to mental illness except in extreme or disabling cases, and they overestimate the detriments of biomedical treatment as a result of deeply rooted cultural presumptions (Chorwe-Sungani et al., 2020). For the Ethiopian context, such typical cause schemata as demonic possession or supernatural punishment reduce perceived susceptibility and delay access to care from formal psychiatric treatment (Tesfaye, 2023a).

Therefore, HBM is particularly applicable to this study because it allows us to analyze how perceived illness and access to care among psychiatric patients determine their seeking or avoiding care choices.

2.2.2 Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) formulated by Ajzen (1991) considers that intention to perform a behavior is influenced by three constructs: attitude towards the behavior, subjective norms, and perceived behavioral control. TPB has also been extensively utilized in mental health-related studies to forecast help-seeking intention and use of mental health care (Schomerus & Angermeyer, 2008). TPB postulates that the most reliable predictor of what actually occurs in the behavior sense is behavioral intention, and that this intention is formulated as a consequence of three strong determinants: attitude towards behavior, subjective norms, and perceived behavior control (Ajzen, 1991). Within the psychiatric help-seeking model, attitude can be what one believes regarding whether treatments for mental illness work or are

appropriate, and subjective norms can be perceived pressure from religious groups, friends and family, that seeking help is appropriate.

Perceived stigma has an effect on attitude and subjective norms. Individuals who have acquired stigmatizing social attitudes towards mental illness are likely to have negative attitudes towards professional assistance, because they fear being stigmatized or judged. Also, where the social setting encourages such stigmatizing attitudes, the subjective norms of help seeking would discourage help seeking in general. TPB suggests that even if one has a positive belief and feels supportive norms, they would delay seeking care if they feel they have no control over the process since they cannot afford it, have no access, or fear misinterpretation (Ajzen, 1991; Brookes, 2023).

Empirical support these days validates the adequacy of TPB in forecasting delay in seeking help in African and Ethiopian contexts. Ayano et al. (2020) discovered in one study that despite having the positive intention to seek care, the effect of negative subjective norms like fear of disapproval from the family or stigmatization by the community had a tendency of preventing them from accessing it. Similarly, when the perceived behavioral control was low (the patient felt that they would not be in a position to access care due to cost, transport, or because clinics were not easily accessible), there were no action intentions (Asrat et al., 2023).

TPB underpins this research in the sense that it integrates the social and environmental elements of behavior most immediately pertinent in Addis Ababa, where community members, religious leaders, and family members exert a dominant influence over personal health choices.

2.2.3 Stigma Theory

Stigma Theory, as described in Goffman's (1963) initial text and developed by Link and Phelan (2001), defines stigma as a social process of labeling, stereotyping, separation, loss of status, and discrimination. Stigma of mental illness is more complex, encompassing public stigma (social perception), self-stigma (embracing these assumptions), and perceived stigma (expectation of devaluation or discrimination).

Contemporary explanations of stigma theory produce the implication that stigma not only exists in individual minds but also gets instantiated in institutionally sanctioned forms, policies, and

stories (Hatzenbuehler et al., 2016). In Ethiopia, research has shown that stigma is rooted on the assumption that mentally ill patients are risky, unpredictable, or religiously "unclean" (Girma, 2022). Public attitudes have a tendency to lead to patients internalizing shame and subsequently withdrawing and avoiding care.

Additionally, self-perceived stigma is a critical predictor that leads to delayed psychiatric care. For example, patients can avoid psychiatric hospitals for fear of being seen by relatives and neighbors, hence, the duration of untreated mental illness (Yohannes et al., 2022). Fears of stigma also impact reporting or failing to report symptoms to clinicians, making interventions less likely to be done on time.

Therefore, Stigma Theory is most appropriate for this study, offering a theory through which to analyze how intrapersonal and social processes of mental illness can cause delayed help-seeking and long-term underutilization of psychiatric treatment.

2.2.4 Integrating the Frameworks

While each of the three theories HBM, TPB, and Stigma Theory is useful in itself, merging them offers a more complete explanation of behavior among psychiatric patients. HBM focuses on cognitive assessments of illness and treatment; TPB inserts social influence and perceived control; and Stigma Theory illustrates how stigmatization and cultural devaluation are negative forces that are long-term barriers. The models combined allow the current study to examine not only if individuals access mental health care, but why they delay, how stigma comes into play in decision-making, and what are the beliefs underlying the decisions in urban Ethiopia.

2.3. Empirical Evidence

Younger individuals are more likely to seek mental health care than older adults, who are discouraged by stigma or presuppositions based on age. Wang et al. (2022) found that patients between the ages of 18-35 used mental health services more often than individuals over 50 years old, based on greater mental health literacy and openness to psychological treatment. Age disparities do occur in Ethiopia, with older patients more likely to have reported going first for initial religious or traditional care before consulting formal care (Negash et al., 2023).

Men are less likely to seek aid for mental illness due to social constructs of manliness and emotion regulation. In keeping with a meta-analysis by Clement et al. (2021), men feel more stigmatisation, which lowers their likelihood of receiving psychiatric care considerably. Women, although more likely to seek care, are discouraged from economic and caregiving obstacles that hinder their presentation for care (Zhou et al., 2022).

Married individuals will have the emotional and logistic backup that will allow them to seek care sooner. Among the factors that single and widowed are most likely to postpone seeking care because they feel alone and lack family support, a Kenyan study by Otieno et al. (2021) included single and widowed. The same has also been noted in Addis Ababa where unstable relationship patients take longer duration before seeking untreated mental illness (Girma et al., 2022).

Level of Education and Literacy of Mental Health Education is a complex socio-demographic mental health indicator. Although rising level of education foretells greater sensitization to mental health issues, it does not signify that it results in early help-seeking. Tertiary-educated individuals delayed seeking help based on internalized stigma and self-management needs in a recent Ethiopian research study by Tesheger et al. (2021). This paradox supports the application of psychoeducation aimed at refuting misconceptions even in educated groups.

Rural areas are more likely to be faced with infrastructural constraint and informal support systems. In Nigeria, Adeyemi et al. (2022) carried out research and found that residents in rural areas were much less likely to receive professional help because of distance, cost, and ideology. In urban Ethiopian environments, where the services are more available, marginalized communities still face delay in the guise of overcrowding and lack of outreach (Negash et al., 2023).

In Ethiopia, people initially approach religious leaders or traditional healers, and psychiatric care is thus postponed. Girma et al. (2022) conducted qualitative studies and revealed that the patients self-blamed the mental illness by referencing spiritual explanations, i.e., possession or god's anger, and employed religious intervention prior to medical therapy. These results emphasize the necessity of including religious leaders in mental health training and referral networks.

Perceived Stigma and Behaviour Avoidance Stigma is the most effective barrier to seeking care. Public stigma and internalized stigma deter individuals from self-disclosing symptoms and accessing care. A global meta-analysis by Clement et al. (2021) reported that perceived stigma was the strongest predictor of delayed help-seeking across diverse populations. Stigma is highly entrenched in social culture within Ethiopia, and many people conceal the condition or wait until it reaches a point where it is too severe to handle (Teshager et al., 2021). Overcoming stigma via community activities and public education is crucial in enhancing mental health outcomes.

Several studies demonstrate that beliefs of mental illness are key to the explanation of help-seeking behavior through impact on symptom perception and perceived appropriate paths of care. For instance, (Fekadu, 2022) demonstrated in Ethiopia that supernatural and spiritual etiologies of mental illness were strongly associated with delayed psychiatric service contact. These patients initially seek out conventional practitioners or religious sites with these convictions, thus experiencing extended periods of untreated illness.

Cross-culturally, Clement et al. (2015) indicated that individuals who endorsed biomedical accounts of mental illness were more likely to be early users of formal health care, whereas those endorsing moral or spiritual etiologies were likely to delay or forego treatment. This has been proven in different cultural settings, including South Asia, Africa, and Latin America (Yang et al., 2020).

Senait et al. (2020) conducted a cross-sectional study in Ayder Comprehensive Specialized Hospital in Northern Ethiopia that aimed to explore routes to psychiatric care and determinants of late help-seeking. The median time from symptom emergence to contact with any type of care provider was 4 weeks, but with modern psychiatric services it was far more delayed—at a mean of 52 weeks. The most common initial source of treatment was religious healers. Divorcee/single and belief that mental illness was shameful were statistically associated with delay in treatment. Conversely, no history of drug abuse was less likely to be delayed. Unawareness of available services and stigma were the major obstacles.

Girma and Tesfaye (2011) carried out a study on the treatment-seeking behavior among 384 psychiatric patients at Jimma University Specialized Hospital. The median time of delay in accessing contemporary mental health treatment was 52.1 weeks. Relatively few patients first

consulted religious healers or herbalists. Spiritual possession and evil eye were common explanatory models for the causation of mental illness, yet most respondents held beliefs in the healing power of biomedical care. Relatives and other patients were significant sources of information. Delays were also elevated in the 31–40 years and those with somatic complaints of headache and abdominal pain. The findings reflect the conflict between biomedical acceptance and cultural belief.

Negash et al. (2023) looked at 414 patients with schizophrenia spectrum disorders at Dilla University Referral Hospital. Nearly half of the respondents (49.8%) reported seeking treatment late. The strongest predictors of this delay were weak family cohesion, rigid family flexibility, internalized stigma, and negative attitudes toward psychiatric treatment. A lack of knowledge about available services also contributed to the delays. Notably, higher educational levels in later grades acted as a protective factor against treatment delays. The results highlight the impact of family structure and social factors, suggesting that interventions should address both information and relationship barriers.

Minichil et al. (2021) studied perceived stigma among caregivers of children and adolescents with mental illness in Addis Ababa. Using validated scales, they found that 38.5% of caregivers experienced significant stigma. Mothers, who were the only caregivers without additional support, as well as those with limited social support or depression, were more likely to be affected by stigma. These findings suggest that caregiver burden and distress can indirectly impact patient treatment adherence and outcomes. Improving mental health services and support systems for caregivers may be essential for increasing psychiatric treatment uptake.

Debela et al. (2024) studied systematic review on Ethiopian community attitudes towards mental health. The review collected data from 17 studies and reduced perceptions into four themes: causations, symptoms, severity, and treatment expectations. Supernatural causations example curse or evil spirit possession were prevalent in addition to socio-economic and biochemical causes. Treatment expectations ranged from conventional and religious healing to modern medicine and psychosocial treatment.

2.4. Summary of Findings and Identified Gaps

There have been few mixed-method studies to examine the interaction of stigma and beliefs with social and demographic factors together in influencing the timing and nature of help-seeking. There has also been little such evidence as to how these operate specifically in the case of public hospital outpatient department psychiatric patients in Addis Ababa.

The gaps must be filled in developing culturally appropriate interventions to close off stigma, counter misconceptions, and ensure early access to mental care. The present study tries to fill this gap by examining these correlations in depth among psychiatric patients at purposively selected public hospitals in Addis Ababa.

Whereas interest in mental health has grown in Ethiopia, there remains a conspicuous lack with regard to understanding how culturally specific beliefs concerning mental illness shape help-seeking behavior. Various studies have indicated that supernatural explanations e.g., spirit possession or god's punishment are common to Ethiopian societies (Teshager et al., 2020). However, few studies have examined systematically how such beliefs, coupled with perceived stigma, function to delay formal psychiatric treatment. The lack of more advanced, locally focused research on explanatory models of mental illness prevents the development of culturally appropriate interventions that would reinforce early detection and treatment.

A second critical gap is a measurement and typology gap with regard to variation among types of stigma public, self, and structural stigma and how each uniquely contributes to delay in help-seeking. Although stigma has become widely accepted as a care barrier, the majority of Ethiopian studies have not broken down its components or inquired into how each uniquely influences patient behavior (Girma et al., 2022). For example, self-stigma may result in internalized shame, while structural stigma such as lack of mental health services may encourage avoidance. Without the specificity here, interventions get too general and lose the potency to meaningfully address the specific obstacles patients face.

There is also limited longitudinal evidence on the prevalence and significance of late help-seeking among Addis Ababa psychiatric patients. Cross-sectional studies reported delays to range from weeks to years with worsening symptoms and increasing functional impairment (Teshager et al., 2020). The majority of the studies did not, however, track patients

longitudinally to ascertain the impact of delay on the outcome of treatment, relapse rate, or social integration.

Finally, there is a methodological limitation in the use of validated instruments to quantify Ethiopian beliefs, stigma, and help-seeking behavior. Closing such gaps is crucial in order to enhance mental health outcomes and minimize the burden of untreated psychiatric disorders in Addis Ababa and elsewhere. In this chapter, dominant theoretical perspectives and empirical studies on beliefs about mental illness, perceived stigma, and delayed help-seeking behavior were synthesized with particular emphasis on global, regional, and Ethiopian contexts.

The Health Belief Model, Theory of Planned Behavior, and Stigma Theory offer strong frameworks for explaining how individual perceptions, social norms, and processes of stigmatization intersect to influence the utilization of mental health services. Collectively, these models highlight the role of cognitive beliefs and social barriers in shaping help-seeking intentions and behaviors.

Cross-cultural studies consistently demonstrate that causality beliefs regarding mental illness, especially supernatural and non-biomedical, predict symptom interpretation and care seeking. The beliefs are strongly linked to perceived stigma, which has been found to be a significant barrier for early disclosure and access to professional mental health treatment. The harmful consequences of stigma are social isolation, delayed treatment, and poor clinical outcomes.

Such elevated-stigma patterns and cultural beliefs with widespread help-seeking behavior influences are also found regionally in African research. Ethiopian research particularly outlines high supernatural explanations and extensive stigma among psychiatric patients, which results in markedly delayed care seeking. Social support and education are factors that appear particularly to buffer or exacerbate such outcomes.

Despite this growing literature, there are certain significant gaps remaining to be filled. Firstly, many of the studies on Ethiopian beliefs of mental illness, stigma, or help-seeking have been conducted in one domain alone, rather than their interlinkages. Secondly, there is little research on psychiatric patients visiting public hospital outpatient clinics in Addis Ababa, a region with

high morbidity and underutilized care. Lastly, social support and education as mediators were given little attention here.

Closing these gaps is central to the development of culturally appropriate interventions that effectively break down the psychosocial barriers to care. This study aims to close these knowledge gaps by examining the additive influence of mental illness beliefs and perceived stigma on delay in seeking help, controlling for social and educational moderators among psychiatric patients in sample public hospitals of Addis Ababa.

2.5. Conceptual Framework

Theoretical framework of this research is based on an integrative model of perceptions of mental illness, perceived stigma, and delayed help-seeking among psychiatric patients. It applies established theories like Health Belief Model (HBM), Theory of Planned Behavior (TPB), and Stigma Theory in the explanation of psychological and social processes underlying when and if someone tends to seek mental health services.

Beliefs regarding Mental Illness: This category consists of causal beliefs (e.g., traditional vs. biomedical causes), treatment beliefs (biomedical vs. traditional treatment effectiveness), and controllability of mental illness (Angermeyer & Dietrich, 2006; Fekadu et al., 2022). These beliefs direct individuals' symptom explanations and their professional help requirements.

Perceived Stigma: It is a measure of patients' expectation or perception of stigmatizing attitudes in society, discrimination, and social rejection of mental illness (Link & Phelan, 2001; Clement et al., 2015). Perceived stigma is a psychologic inhibitory barrier to disclosure and contact with official mental health services.

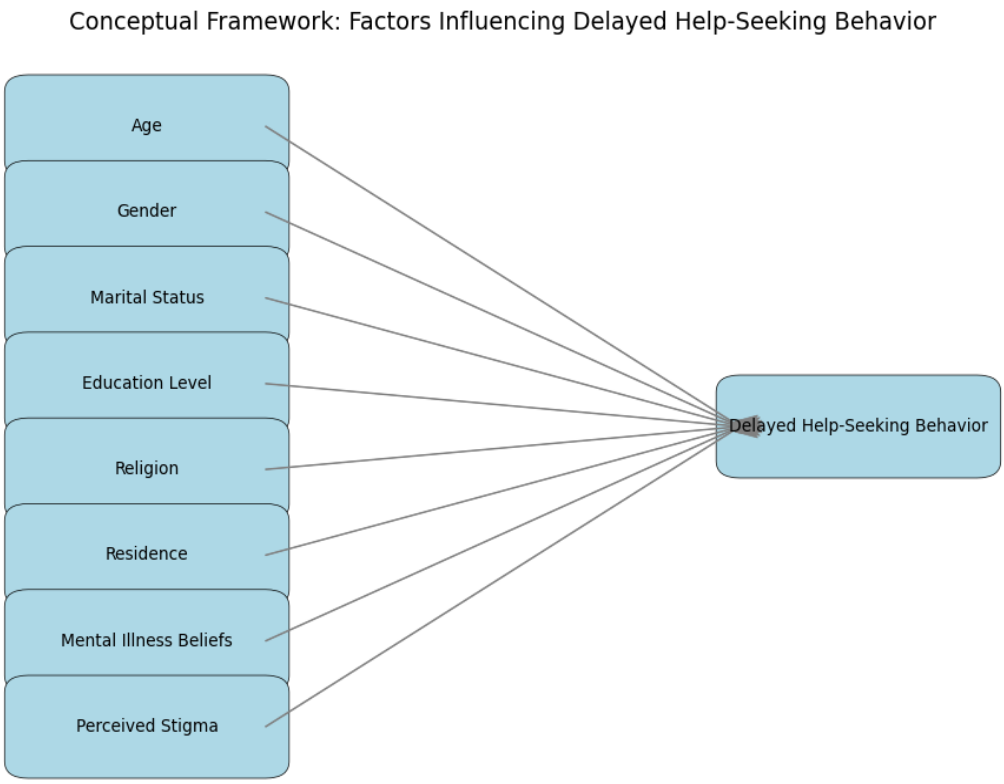

Figure 1: Conceptual framework of the study

Source: Adopted from Dykxhoorn, J., Fischer, L., Bayliss, B. *et al.(2022).*

Chapter Three: Research Methodology

3.1. Research Design and Approach

This study employed a descriptive cross-sectional research design to systematically assess the relationship between mental illness beliefs, perceived stigma, and delayed help-seeking behavior among psychiatric patients in selected public hospitals. The descriptive survey design was chosen to systematically collect data at a single point in time, allowing the researcher to capture the current state of stigma and help-seeking delays within the selected public hospitals in Addis Ababa. Descriptive research focuses on assessing attitudes, opinions, demographic characteristics, and behavioral patterns (Creswell, 2012), making it suitable for mapping the psychosocial landscape of mental health perceptions.

Given the sensitive nature of mental health and the logistical constraints of hospital-based research, combining descriptive and explanatory designs provided both ethical feasibility and methodological rigor.

A quantitative research approach was adopted, using structured questionnaires to gather data from participants. As Creswell (2014) notes, quantitative methods are effective for measuring variables and testing hypotheses through statistical analysis. This approach was particularly appropriate for identifying predictors and correlates of delayed help-seeking behavior (Walsh & Foster, 2024), allowing the researcher to quantify the impact of cultural beliefs and perceived stigma on psychiatric service utilization.

3.2. Description of the Study Site

The study employed in the public hospitals of Amanuel Mental Specialized Hospitals and Eka Kotebe General Hospitals. Data were collected from Amanuel Mental Specialized Hospital and Eka Kotebe General Hospital. Amanuel Hospital is the old in age and one specialized mental health hospital in Ethiopia (WHO, 2023).

The two hospitals were purposefully selected to capture a representative sample of psychiatric patients within Addis Ababa, Ethiopia’s capital and largest urban center. These hospitals serve a diverse patient population drawn from various regions of the country, including both urban and rural migrants, making them suitable for exploring a wide range of mental illness beliefs and

stigma-related experiences. The environment caters to the urban and rural catchment population, offering a naturalistic environment to study diverse psychiatric populations. Outpatients visiting these hospitals are recruited from various social strata, and most possess low levels of mental health literacy, being influenced by cultural and religious beliefs prevalent in Ethiopian society. Stigma against mental illness is not rare, and traditional healing and religious healing coexist with biomedicine. This environment is justified because it reflects the real working conditions of psychiatric patients in seeking and utilizing mental healthcare in Ethiopia.

3.3. Target Population

The target population consists of adult psychiatric patients (aged 18 and above) receiving treatment or follow-up care in June, 2025 and July, 2025 in the psychiatric wards of the targeted public hospitals. This is because such patients have personal experience with mental illness beliefs, stigma, and help-seeking.

The population of the study includes psychiatric patients attending Amanuel Mental Specialized Hospital and Eka Kotebe General Hospital in Addis Ababa, Ethiopia. Amanuel Hospital, which is the largest mental health hospital in Ethiopia, serves about 1,450 patients every day, with an average of around 135,000 outpatients and around 30,000 visits monthly. It has 14 wards with 233 inpatient beds that treat a variety of psychiatric disorders such as schizophrenia, bipolar disorder, depression, and substance disorders. Although larger in scale, Eka Kotebe Hospital also provides considerable psychiatric services with almost 450 daily patient visitations, 8,000 monthly outpatient visitations, and 60,000 annually. It has 7 wards and 73 beds for inpatients and is thus a significant supplier of mental health services in the country's capital. The figures are large numbers of patients and wide ranges of clinical presentations, which are common characteristics of both hospitals, making them ideal locations to explore beliefs, stigma, and help-seeking in psychiatric patients, as assessed by MoH (2025).

Representativeness is guaranteed by sampling patients from both hospitals. Population of interest is adult patients who were met for outpatient or inpatient psychiatric care during the study period regardless of diagnosis. Focusing on these two sites, the study covers viewpoints from both integrated and specialty psychiatric care sites. The heterogeneity is needed in the measurement of how institutional context, patient population size, and service delivery models affect beliefs

regarding mental illness and delay in help-seeking because of stigma. Besides, the large number and consistent stream of patients in the two institutions enhance the feasibility of systematic sampling and the generalizability of results to other Ethiopian city mental health facilities (Abdela, 2021).

3.4. Samples and Sampling Techniques

3.4.1 Sample Size Determination

Since the researcher took two months (in June, 2025 and July) to collect data, the right total population (N) for Yamane's sample size determination formula should reflect the combined monthly inpatient and outpatient volume of both hospitals which is Amanuel Hospital at 30,000 and Eka Kotebe Hospital at 8,000 that translate to total population of 38,000 per month and total of 76,000 population size. In hospital-based cross-sectional studies, it is methodologically acceptable to use service volume as a proxy for population size, especially when targeting patients who meet specific inclusion criteria during a defined period (Creswell, 2014; Hair et al., 2015).

The decision to use a total population size of 76,000 in Yamane's sample size determination formula is justified by the two-month data collection period across both study sites Amanuel Hospital and Eka Kotebe Hospital. Since the research targeted psychiatric outpatients and each hospital serves a distinct monthly volume (30,000 and 8,000 respectively), it is methodologically sound to aggregate the monthly figures to reflect the full scope of the study duration. This results in a combined monthly outpatient population of 38,000, which, when multiplied by two months, yields a total population (N) of 76,000. Using this cumulative figure ensures that the sample size accurately represents the full population exposed to the study conditions during the data collection window, thereby enhancing the validity and generalizability of the findings.

To contextualize this population, hospital records and prior studies indicate that psychiatric patients attending these facilities are diverse in sex (with a slight male predominance), educational background (ranging from no formal education to tertiary level), and occupational status (including unemployed, daily laborers, civil servants, and students). Additionally, while both hospitals are located in Addis Ababa, they serve patients from urban, and rural areas, reflecting Ethiopia's broader socio-demographic landscape.

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

Where N= the total population.

e = sampling error estimated

n = total sample size which is taken from the calculation

So, the researcher sample is $n = \frac{76{,}000}{1+76{,}000(0.05)^2} = 397.90557$ which is nearly 398

To account for potential non-response and incomplete data, a 10% buffer was added to the calculated sample size to ensure adequate representation and statistical reliability. n=398, adding 10% would bring it to approximately 438 to safeguard against attrition.

3.4.2 Sampling Technique

A strata and systematic random sampling technique was employed. The sampling frame was the list of psychiatric patients attending the outpatient or inpatient units during the data collection period. The sampling interval was calculated by dividing the total number of patients by the sample size. The first participant was randomly selected, followed by every k-th patient. This method ensures representativeness and minimizes selection bias, aligning with the study's quantitative nature and objectives. This method is particularly suitable in clinical settings where patient lists are sequentially organized, allowing for efficient and reproducible sampling.

Systematic sampling was preferred over simple random sampling due to its practical advantages in clinical settings. Patient lists in hospitals are often organized sequentially (e.g., by registration or appointment time), making systematic sampling more efficient and easier to implement without compromising randomness. It reduces the logistical burden of generating random numbers for each selection and allows for faster data collection while maintaining low selection bias (Kothari, 2004). Moreover, when the population is homogeneously distributed—as is often the case in hospital-based studies systematic sampling yields results comparable to simple random sampling but with greater operational feasibility.

The study employed strata on the 2 hospitals to determine the sample for each hospital:

Table 1: Samples in the strata

Hospitals	Population	Sample Size($n_i=(N_i*n)/N$
Amanuel Hospital	60,000	316
Eka Kotebe Hospital	16,000	84
Total	76,000	400

To ensure proportional representation from both hospitals, the study applied stratified sampling. Each hospital served as a stratum, and the sample size for each was allocated based on its share of the total patient population. This stratification accounts for institutional differences in patient demographics, service delivery, and case severity, thereby improving the external validity and comparability of findings across settings.

3.5 Instruments of Data Collection

3.5.1 Questionnaire

A standardized interviewer-administered questionnaire was used to collect data. The researcher did triangulate the data collection tools to maximize validity and quality of findings. Specifically, the study employed a combination of structured questionnaires, and documentary reviews. Methodological triangulation helped to cross-validate results, documenting quantitative trends. The questionnaire has four major sections:

The first section is Socio-demographic characteristics (age, sex, education, occupation, income, etc.).

The second instrument used in this study is the Mental Illness Beliefs Scale, which was adapted from previously validated tools most notably the Beliefs about Mental Illness Scale developed by Reavley and Jorm (2016). This scale is designed to assess patients' beliefs regarding the causes, nature, and treatability of mental illness. It consists of 15 items, each rated on a Likert scale, allowing respondents to express degrees of agreement or disagreement. The adaptation process ensured cultural relevance and contextual sensitivity for Ethiopian psychiatric patients, while maintaining the psychometric integrity of the original scale.

Perceived Stigma Scale: The 12-item Perceived Devaluation-Discrimination Scale of Link et al. (1987) was applied as a well-used and validated measure of perceived stigma. Responses are on a 4-point Likert scale.

Help-Seeking Behavior Questionnaire: This measure, adapted from the General Help-Seeking Questionnaire of Wilson et al. (2005), measures delays in seeking professional help, past sources of help, and help-seeking obstacles. It has 10 items.

3.5.2 Validity and Reliability

The instruments are adapted from established scales with reported reliability and validity. For contextual comparability and content validity, the questionnaire was pre-tested by three subject matter experts (SMEs) in psychiatry and psychology. Their feedback was used to rephrase ambigious or culture-incapable items.

For ascertaining content validity and situational appropriateness of the research instrument, pre-testing of the questionnaire was conducted with three subject matter experts (SMEs) in the domain of psychiatry and psychology. This is in accordance with standard instrument validation practices, wherein 3 to 5 experts are typically recommended to determine item clarity, relevance, and cultural acceptability (Lynn, 1986; Polit & Beck, 2006). Having three experts provided a balance of diverse professional backgrounds and pragmatics, especially in conditions of time and institutional access limitations.

Each of the experts was asked to score the items from the questionnaire on the basis of a standardized review protocol. They rated cultural sensitivity, language clarity, and appropriateness for Ethiopian mental health environments. A 4-point relevance rating scale was used to score items, and their input was used to reword unclear terminology, culturally insensitive item wording, and redundant items. The exercise was used in the computation of a pretest Content Validity Index (CVI) and to estimate the degree of expert consensus as well as guide item refinement (Polit & Beck, 2006).

Data from the SMEs were utilized to refine the quality of the instrument. For instance, "distress" and "support system" were reworded into local usage jargon, and cross-cultural issues replaced Western-style forms of therapy models. Their inputs also resulted in exclusion of low relevance-

rated items and addition of new items reflecting stigma and help-seeking behavior more adequately in Ethiopia.

This triangulated process increased the credibility of the instrument and made it relevant to the population in question. For the sake of assurance of the reliability and situational appropriateness of the research instrument, a pilot test was conducted on 5% of the entire sample approximately 20 psychiatric patients in Amanuel Mental Hospital and Eka Kotebe Hospital not included in the main study. The use of 20 subjects for a pilot test is recommended by methodological literature. Birkett and Day (1994) recommend a minimum of 20 subjects for pilot trials within the organization to test feasibility and reliability. Julious (2005) recommends a sample size range of 12 to 24 participants as adequate for conducting preliminary evaluations of survey instruments. This preliminary testing allowed for the identification of ambiguities, cultural misfits, and response biases. In light of participants' feedback and pilot phase observations, the instrument was modified to improve clarity, sensitivity, and validity and thus improve the overall methodological quality of the study.

Reliability was assessed by adopting reliable instrument. Cronbach's alpha was computed for internal consistency, with values above 0.7 considered acceptable.

Table 2: Reliability of the instrument

		Pilot Study		Main Study	
No	Dimension	Item NO	Cronbach Alpha	Item NO	Cronbach Alpha
1	Mental Illness	15	0.78	15	0.85
2	Stigma	12	0.81	12	0.88

Source: Survey result, 2025

3.6 Procedures of Data Collection

Data collection was conducted by trained psychiatric nurses fluent in Amharic and experienced in psychiatric patient care. On average, each patient took 20 to 30 minutes to complete the structured questionnaire, depending on their clinical condition and. A two-day training session was provided covering the study's objectives, ethical considerations, questionnaire administration, and handling sensitive issues.

Participants were approached during their clinic visits or hospital stays. The purpose of the study was explained clearly, emphasizing confidentiality, voluntary participation, and the right to withdraw at any time. Written informed consent was obtained.

Interviews were conducted in private rooms to ensure confidentiality and encourage honest responses. Data collection is expected to take 20–30 minutes per participant.

3.7. Procedures of Data Analysis

Data were entered and analyzed using SPSS version 26. Descriptive statistics (frequencies, percentages, means, and standard deviations) were summarizing socio-demographics, beliefs, stigma, and help-seeking behaviors.

3.7.1. Descriptive Statistics

Descriptive statistics were used to summarize and present the characteristics of the study population. This included frequencies, percentages, means, and standard deviations to describe key variables such as socio-demographic attributes (e.g., age, sex, education, occupation, residence), as well as participants' beliefs about mental illness, perceived stigma, and help-seeking behaviors. These statistics provide a foundational understanding of the sample and help identify patterns and distributions within the data. Descriptive analysis is appropriate for this study because it allows for clear presentation of categorical and Likert-scale data, which are central to the research objectives.

3.7.2. Binary Logistic Regression Analysis

Binary logistic regression was employed to examine the associations and predictive relationships between independent variables namely mental illness beliefs and perceived stigma—and the dependent variable, delayed help-seeking behavior (coded as a binary outcome: delayed vs. not

delayed). This method is suitable because the outcome variable is dichotomous and the predictors are a mix of categorical and ordinal variables.

Before conducting logistic regression, key assumptions were considered:

- Independence of observations: Each participant's response was treated as independent.
- Linearity in the logit: For continuous predictors, the relationship with the log odds of the outcome was assessed.
- Absence of multicollinearity: Correlations among predictors were checked to ensure they did not distort the model.

The analysis produced odds ratios (ORs) with 95% confidence intervals (CIs) to quantify the strength and direction of associations. This helped identify which beliefs and stigma dimensions significantly predicted delayed help-seeking among psychiatric patients.

3.8. Ethical Considerations

Ethical clearance was sought from the Institutional Review Board (IRB) of Addis Ababa University and from each hospital administrations. Participants provided full disclosure concerning the purpose of the study, its benefits, and risks. Confidentiality was preserved by using codes instead of names. Information were stored confidentially and accessible only to the research team. Voluntary participation with no penalty for refusal or withdrawal was applied. Special care was taken in order to protect vulnerable participants with mental stability and understanding before interviewing.

Chapter Four: Result and Discussion

This chapter presents the key findings of the study conducted at Amanuel Mental Health Specialized Hospital and Eka Kotebe General Hospital in Addis Ababa, Ethiopia. The research aimed to investigate the complex interplay between mental illness beliefs, perceived stigma, and delayed help-seeking behavior among psychiatric patients. By analyzing data collected from a diverse sample of inpatients and outpatients, the chapter provides a comprehensive overview of how individual perceptions and socio-cultural factors shape mental health service utilization.

The results are organized around core thematic areas, including socio-demographic characteristics, beliefs about mental illness, levels of perceived stigma, and patterns of help-seeking behavior. Quantitative data were analyzed using descriptive statistics and binary logistic regression to identify significant associations and predictors. These findings are complemented by contextual interpretations that reflect Ethiopia's unique cultural landscape, where traditional beliefs, religious interpretations, and social norms often influence attitudes toward mental illness and care-seeking.

The chapter also situates the findings within the broader literature, highlighting both convergences and divergences with previous studies conducted in Western and African contexts. Particular attention is given to how stigma and misconceptions delay psychiatric intervention, despite the availability of services in urban centers like Addis Ababa. By unpacking these barriers, the study contributes to a deeper understanding of the challenges facing mental health systems in Ethiopia and offers evidence-based insights for improving early intervention strategies and culturally sensitive counseling practices.

4.1. Results and Interpretations

4.1.1. Socio-Demographic Information

Table 3: Socio-Demographic Information of the respondents

		Frequency	Percent %
Age of the respondent	18-25 years	104	26.1%
	26-35 years	108	27.1%
	36-45 years	81	20.3%
	46 and above	106	26.6%
Sex of the respondent	Male	193	48.4%
	Female	206	51.6%
Marital status of the respondent	Single	184	46.1%
	Married	167	41.9%
	Divorced	48	12.0%
	Widowed	0	0.0%
Education level	No formal education	108	27.1%
	Primary school	111	27.8%
	Secondary school	48	12.0%
	College diploma	62	15.5%
	Bachelor degree and above	70	17.5%
Occupation type	Employed	111	27.8%
	Government employed	16	4.0%
	Self employed	64	16.0%
	Unemployed	208	52.1%
Monthly income category	Below 1000 ETB	67	16.8%
	1001-3000 ETB	88	22.1%
	3001-5000 ETB	124	31.1%
	Above 5000 ETB	120	30.1%
Religious affiliation	Orthodox Christian	291	72.9%
	Muslim	48	12.0%
	Protestant	38	9.5%
	Other	22	5.5%
Place of residence	Urban	237	59.4%
	Rural	162	40.6%

Source: Survey result, 2025

The age categories indicate that 27.1% represents 26–35 years old and 26.6% represent 46 years old. This indicates that the majority mental patient is old range ages.

When we see the gender distribution of the respondents 51.6% of respondents were females and the remaining 48.4% were male. It is critical because help-seeking and stigma tend to differ by

gender. More women might have greater access to care through social networks, while men would delay help-seeking for values and stigma among men. Such processes demand gender-sensitive mental health care that responds to special challenges faced by women and men.

Nearly half of the interview participants were singles (46.1%), then marrieds (41.9%), with minimal divorced respondents (12.0%). Singles will most likely be more isolated, which exacerbates stigma and procrastinates seeking help. Marrieds may have access to support from their spouse, yet family-level stigma may also interfere.

The majority of the survey participants had no education (27.1%) or primary education only (27.8%), and a mere 17.5% had a bachelor's degree or higher. This level of educational inequality is most critical because lower levels of education are associated with low mental health literacy and increased exposure to stigma. Targeted awareness campaigns and user-friendly service navigation facilitation are required to access the low formal education individuals.

More than half of the participants were unemployed (52.1%), and only 4% of participants were working in government organizations. High unemployment rate can be among the causes of financial shortages and provokes stigma. The income information reveals that the majority of the respondents earned less than 5000 ETB per month, and 16.8% earned less than 1000 ETB. These findings reveal the economic vulnerability of psychiatric patients and the need for subsidized or community mental health services. Although over a majority (52.1%) of the participants were unemployed, a significant proportion of them had an income of over 1,000 ETB per month, among whom 61.2% were in the range of 3,001–5,000 ETB and over 5,000 ETB. This apparent contradiction is explainable by the fact that quoted earnings likely comprise not only waged salaries but also unregistered wages, remittances, family allowance, and other non-waged inputs. In the majority of peri-urban and urban Ethiopian contexts, individuals not enjoying the advantages of formal job-related incomes may still gain regular family support or have informal economic means of livelihood such as local-level mutual support networks, freelance work, or petty trade. The income figures thus represent a wider conception of financial resources than conventional work.

The majority which covers 72.9% was orthodox Christian and the second were Muslims (12%) and third was Protestants (9.5%). Religious aspects are one factors for mental illness hence the majority believed that it is punishment from God/Allah. In addition when we saw their resident places, 40.6% of the sample was from rural in which treatment is less given. This indicates there is a geographical difference.

4.1.2. Mental Illness Beliefs

Table 4: Aggregate of Mental Illness Beliefs of respondents

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
SUPERNATURAL BELIEFS	399	3.00	4.33	3.6199	.31354
BIOMEDICAL BELIEFS	399	3.00	4.00	3.6406	.33046
PSYCHOSOCIAL BELIEFS	399	3.00	4.29	3.6549	.30168

Source: Analysis result, 2025

Table 4 presents the aggregate mean scores and standard deviations for the three main domains of mental illness beliefs supernatural, biomedical, and psychosocial — among 399 psychiatric patients from Amanuel Mental Specialized Hospital and Eka Kotebe General Hospital. As shown, the mean scores for all belief domains were moderately high: supernatural beliefs (M = 3.62, SD = 0.31), biomedical beliefs (M = 3.64, SD = 0.33), and psychosocial beliefs (M = 3.65, SD = 0.30). The scores ranged between 3.00 and approximately 4.33, indicating that most respondents moderately to strongly endorsed multiple explanatory models of mental illness rather than adhering exclusively to a single belief type.

The findings suggest that participants generally hold mixed explanatory beliefs about mental illness. While they recognized biomedical and psychosocial causes such as brain dysfunction, stress, or interpersonal problems, they also attributed mental illness to supernatural factors like spirit possession or divine punishment. The relatively close mean values across the three categories demonstrate that traditional–spiritual and scientific perspectives coexist within the same population

Table 5: Details Mental Illness Beliefs of respondents

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Mental illness belief 1	399	3	4	3.58	.494
Mental illness belief 2	399	3	4	3.48	.500
Mental illness belief 3	399	3	4	3.40	.491
Mental illness belief 4	399	3	4	3.60	.491
Mental illness belief 5	399	3	4	3.56	.497
Mental illness belief 6	399	3	4	3.52	.500
Mental illness belief 7	399	3	4	3.68	.467
Mental illness belief 8	399	3	4	3.70	.458
Mental illness belief 9	399	3	5	3.80	.448
Mental illness belief 10	399	3	5	3.72	.493
Mental illness belief 11	399	3	4	3.64	.480
Mental illness belief 12	399	3	4	3.70	.458
Mental illness belief 13	399	3	5	3.68	.508
Mental illness belief 14	399	3	4	3.72	.449
Mental illness belief 15	399	3	4	3.86	.348
Agg Mean				3.64	0.472

Source: Analysis result, 2025

The analysis permits for item-level interpretation and gives the option to view which specific beliefs are more strongly or weakly accepted or rejected by respondents.

Supernatural and Spiritual Beliefs the respondents agree that mental illness is caused by supernatural forces (M = 3.58, SD = 0.494) and that mental illness is punishment for sin (M = 3.48, SD = 0.500). Both of these ratings are in the "Agree" category, reflecting that psychiatric patients still maintain shared supernatural and spiritual beliefs. Such religions are likely to decelerate care seeking by encouraging the use of religious or cultural healers as opposed to medical doctors.

Biomedical and Medical Knowledge Belief that mental illness is caused by a chemical imbalance of the brain rated a mean of 3.40 (SD = 0.491), at the peak of the "Neutral" scale. Belief that medical treatment heals mental illness, however, was endorsed (M = 3.56, SD = 0.497). These findings suggest partial knowledge of biomedical explanations but no deep-seated belief. Increased awareness of mental health through specifically targeted campaigns has the potential to close the gap and trigger early medical treatment.

Stigmatizing Danger and Weakness Beliefs All participants agreed that the mentally ill are threatening (M = 3.60, SD = 0.491) and mental illness is a sign of weakness (M = 3.52, SD = 0.500). Such stigmatizing danger and weakness beliefs are likely to be responsible for most social exclusion and internalized stigma, discouraging help-seeking. Challenging them by community discussion and patient testimony can avoid fear and promote sympathy.

Beliefs about Heredity and Trauma Support was found for both the notion that mental illness is heritable (runs in families) (M = 3.68, SD = 0.467) and develops because of trauma or stress (M = 3.70, SD = 0.458). Ratings mirror growing recognition of genetic and psychosocial etiologies, possibly resulting from more refined description of mental illness. But well-educated, these attitudes also lead to fatalism or desistance from caring due to fear of stigmatisation by families.

Traditional and Cultural Explanations had the highest level of agreement regarding the ascription for causing mental illness by witchcraft (M = 3.80, SD = 0.448), and this carries the greatest cultural influence. Such ascription can facilitate delay seeking of care by first spiritual relief-

seeking before accepting clinical treatment. Mental health care has to involve cultural leaders and traditional healers to be able to build referral systems and break dangerous delay.

Belief in Recovery and Contagion: The participants agreed that people with mental illness would get better (M = 3.72, SD = 0.493), a positive sign and indicator of recovery to treatment. Belief in contagion through contact of mental illness (M = 3.64, SD = 0.480) is misunderstanding that may lead to discrimination and isolation. Public health messaging needs to be targeted towards recovery and non-contagion through contact of mental illness.

Professional Intervention and Personal Failure The highest agreement was observed in the assertion that professional intervention is required for mental illness (M = 3.86, SD = 0.348), reflecting the awareness of participants that professional intervention is required. Personal failure as a cause of mental illness (M = 3.72, SD = 0.449) is still prevalent, reflecting internalized stigma. These are the conflicting perceptions which require there to be included within them mental health training which promotes self-compassion as well as promotes the requirement of professional intervention.

4.1.3. Perceived Stigma

Table 6: Aggregate of Perceived Stigma

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Social rejection/Devaluation	399	3.00	5.00	3.9943	.25613
Discrimination/Structural Stigma	399	3.00	5.00	4.0000	.31348
Blame/Weakness Attribution	399	3.00	5.00	3.9499	.36491

Source: Survey result, 2025

Table 6 descriptive statistics result reveal that perceived stigma among psychiatric patients in selected public hospitals is consistently high level across all three dimensions. The results show that the mean score for discrimination/structural stigma was the highest (M = 4.00, SD = 0.31), followed closely by social rejection/devaluation (M = 3.99, SD = 0.26) and blame/weakness attribution (M = 3.95, SD = 0.36). Since all mean scores are near 4.00 on a five-point Likert scale, it indicates a high level of perceived stigma among the respondents. This means that most participants believe people with mental illness are socially rejected, unfairly treated, and blamed for their condition. The narrow standard deviations (.25–.36) suggest that responses were relatively consistent among participants.These findings underscore the urgent need for stigma-reduction strategies and inclusive psychosocial support systems that address both community attitudes and institutional practices.

Table 7: Details of Perceived Stigma

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Perceived stigma 1	399	3	5	4.08	.441
Perceived stigma 2	399	3	5	4.04	.399
Perceived stigma 3	399	3	5	3.98	.470
Perceived stigma 4	399	3	5	4.04	.281
Perceived stigma 5	399	3	5	3.94	.311
Perceived stigma 6	399	3	5	4.00	.201
Perceived stigma 7	399	3	5	3.98	.425
Perceived stigma 8	399	3	5	3.98	.375
Perceived stigma 9	399	3	5	3.96	.399
Perceived stigma 10	399	3	5	3.94	.421
Perceived stigma 11	399	3	5	3.92	.441
Perceived stigma 12	399	3	5	4.00	.448
Agg Mean				3.99	0.384

Source: Survey result, 2025

Public Perception and Social Judgment All of the participants agreed on the statement that most individuals have less respect for an individual who has a mental illness (M = 4.08, SD = 0.441). This illustrates a high degree of societal stigma, with those who have mental illness being viewed as inferior or less capable. These beliefs have the possibility of causing internalized shame and dissuading individuals from seeking assistance or disclosing their status. Public education campaigns challenging stereotypes and affirming dignity are therefore critical given the high consensus rate.

Employment Discrimination The general agreement was that most employers would not hire an individual with a mental illness (M = 4.04, SD = 0.399). This finding reflects structural stigma in the labor market, in which mental disorders are conceptualized as deficits. Discrimination in

hiring not only affects economic stability but also maintains social exclusion. Promotion of inclusive workplace policies and anti-discrimination legislation is needed to maintain the rights of people with mental illness.

Community Treatment and Social Avoidance Respondents also agreed that mentally ill persons are treated in a way that is not fair to them in the community (M = 3.98, SD = 0.470) and are avoided by others (M = 3.94, SD = 0.311). This result supports that stigma occurs in everyday life, leading to isolation and exclusion. Social avoidance may be motivated by fear, misinformation, or cultural beliefs. Community-level interventions that provoke empathy and normalize discussing mental illness can help to reduce this sort of stigma.

There was agreement on Beliefs about Life Potential and Embarrassment. There was agreement that most believed that a person who has mental illness cannot lead a fulfilling life (M = 4.04, SD = 0.281) and that mental illness is embarrassing (M = 4.00, SD = 0.201). These assumptions are a recovery-friendly narrative and are favorable to shame. They discourage individuals from seeking early intervention or integration into society. Positive recovery stories and the identification of the potential for recovery with successful lives in the midst of mental illness have the potential to counteract these negative stories.

Social Exclusion and Barriers to Friendship the participants agreed that most of them would not take a person with mental illness as a close friend (M = 3.98, SD = 0.425), which indicates relational stigma. This social exclusion is particularly damaging as it affects emotional support and social integration. Programs for the promotion of mental health need to emphasize the importance of friendship, belonging, and community support during the recovery process.

Discrimination within Public Services and Blame Everyone agreed on discrimination against those with mental illness in public services (M = 3.98, SD = 0.375) and being blamed for their illness (M = 3.96, SD = 0.399). The findings suggest that stigma finds its way into institutional settings, affecting access to healthcare, education, and social services. Blame stigma may be the product of misbeliefs attributing mental illness to personal failure or moral deficiency. Training of service providers and systems of public accountability must ensure equal treatment.

4.1.4. Help-Seeking Behavior

Table 8: Help-Seeking Behavior

		Frequency	Percent %
Time since symptom onset	<1 month	96	24.1%
	1-6 months	96	24.1%
	7-12 months	96	24.1%
	> 1 year	111	27.8%
Delay in seeking professional help	<1 month	102	25.6%
	1-6 months	106	26.6%
	7-12 months	80	20.1%
	>1 year	111	27.8%
Whom consulted before coming to hospital	All	24	6.0%
	Family	55	13.8%
	No one	56	14%
	Religious leader	144	36.1%
	Traditional healer	120	30.1%
Reason for delay in seeking professional help	Fear of stigma	184	46.1%
	Financial issues	16	4.0%
	Lack of awareness	88	22.1%
	Spiritual beliefs	111	27.8%
Avoided help due to stigma or lable	Yes	295	73.9%
	No	104	26.1%
Frequency of mental health follow-up	Regularly	120	30.1%
	Occasionally	135	33.8%
	Rarely	88	22.1%
	Not at all	56	14.0%
Satisfied with mental health support received	Yes	296	74.2%
	No	103	25.8%

Source: Sample survey result, 2025

Symptom Duration and Delay in Seeking Treatment The statistics indicate that 27.8% of the sample had symptom duration of more than one year prior to help-seeking, and comparable rates (24.1%) manifested symptoms in less than one month, 1–6 months, and 7–12 months. The

majority about symptom recognition was 25.6% represents a delayed of more than 1 year before obtaining treatment of professions. This indicates the majority did not take professional treatment as needed. When we see about whom consulted before coming to hospital, 30.1% represents first consulted traditional healers, 36.1% consults religious leaders 13.8% accepts advice from their families and 6% all they get. This indicates the majority consults informal consultant not professional.

The majority of the respondent's delay was due to stigma which covers 46.1% and not awaring covers 22.1% religious covers 27.8%. This indicates the majority affected with stigma.

Despite delays and stigma issues, 74.2% of the sample was satisfied with the mental health treatment they received, while 25.8% were dissatisfied. The fact that such a high percentage reported positive experiences shows that when people access care, they often view it favorably. It also points to the importance of confronting issues of access and trust in mental health treatment, especially among highly dependent users of informal chains of care.

4.1.5. Binomial Logistic Regression

Binomial logistic regression is a statistical model of the relationship between one or more independent variables and a binary dependent variable. In contrast to linear regression for predicting continuous outcomes, logistic regression gives a prediction of the probability that a categorical outcome is coded 0 or 1, depending on the predictor variables (Bobbitt, 2021). This method is very common in mental health research, where the outcome like delay on help-seeking behavior (delayed or not delayed) can be influenced by variables like stigma, consciousness, or religious beliefs. The model provides odds ratios, which are the manner in which the odds of the outcome are increased with each unit increase in the predictor variable.

In explaining binomial logistic regression results, researchers typically report odds ratios (OR), confidence intervals (CI), and p-values to assess the strength and significance of the association. For example, OR values greater than 1 indicate increased odds of the outcome event, and less than 1 indicate decreased odds. Confidence intervals provide an interval where the actual OR likely falls, while p-values determine statistical significance (Statistics Easily, 2024). Model fit can be tested using measures such as the Hosmer-Lemeshow goodness-of-fit test, which assesses whether or not actual outcomes are close to predicted probabilities. These types of statistics ensure not only that the model is statistically sufficient but also practically interpretable.

Logistic Regression analysis result

Model Fit Statistics

Table 9: Omnibus Tests of Model Coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	Df	Sig.
Step 1	Step	334.778	16	.000
	Block	334.778	16	.000
	Model	334.778	16	.000

Omnibus Tests of Model Coefficients in binomial logistic regression assess if a full model with predictors fits much better than an intercept-only model. In the results, there is a chi-square of 334.778 on 16 degrees of freedom with a p-value of .000, suggesting that the full model is statistically significant. This means that the predictors constituting the model as an aggregate contribute to explaining variability in the dependent variable, and the model fits better than one which does not make any assumptions about how the predictors relate to the outcome (UCLA OARC, 2023).

This result supports the choice of selected variables for entry into the logistic regression analysis and suggests that at least some of them are substantially correlated with the dependent variable. While the omnibus test does not report which predictors are significant, it informs us that the model as a whole is useful and worth further investigation. Further steps would include looking at individual coefficients, odds ratios, and confidence intervals to determine specifically which variables are contributing the most to the model's predictive strength.

Table 10: -2 Log Likelihood: Indicates model fit; lower values suggest better fit.

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	118.842[a]	.568	.836

a. Estimation terminated at iteration number 9 because parameter estimates changed by less than .001.

Source: Survey result, 2025

The "-2 Log Likelihood" statistic in logistic regression is an important measure of model fit, and lower values indicate a more fitting model. In this analysis, the figure of 118.842 reflects the fit of the predictor model to the observed results relative to a model with no predictors. Although the absolute value of -2 Log Likelihood by itself is not necessarily meaningful, it does become meaningful when one is comparing nested models those with and without particular predictors. Because the model has multiple predictors and has also converged well (as indicated by the estimation stopping at iteration 9), the fairly low -2 Log Likelihood value indicates that the model fits the data fairly well (Statology, 2024)

Substantiating this, the Cox & Snell R Square (.568) and Nagelkerke R Square (.836) provide pseudo-R^2 measures that provide an estimate of variance proportion explained in the model. The Nagelkerke value that scales Cox & Snell to a maximum of 1 indicates a high explanatory ability. Together, these figures mean that this logistic regression model is a good fit to the data and also explains a high percentage of the variance in the dependent variable. This contributes towards the validity of the model for predictive and inferential purposes.

Regression Coefficients

For each predictor variable:

Predictor B (Coefficient) SE Wald df p-value Exp(B) (Odds Ratio)

Table 11: Predictor B (Coefficient) SE Wald df p-value Exp(B) (Odds Ratio)

Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
Age of the respondent			**7.149**	**3**	**.067**	
Age of the respondent(1)	-.387	.933	.172	1	.678	.679
Age of the respondent(2)	.522	.974	.287	1	.592	1.685
Age of the respondent(3)	2.191	1.210	3.277	1	.070	8.942
Sex of the respondent(1)	-1.478	.606	5.949	1	.015	.228
Marital status of the respondent			**7.102**	**2**	**.029**	
Marital status of the respondent(1)	2.087	1.707	1.496	1	.221	8.064
Marital status of the respondent(2)	3.689	1.736	4.516	1	.034	40.007
Education level			**21.220**	**4**	**.000**	
Education level(1)	2.892	.898	10.379	1	.001	18.036
Education level(2)	3.363	1.010	11.089	1	.001	28.872
Education level(3)	4.400	1.905	5.336	1	.021	81.447
Education level(4)	3.617	.846	18.282	1	.000	37.235
Religious affiliation			**2.512**	**3**	**.473**	
Religious affiliation(1)	-1.599	1.378	1.345	1	.246	.202
Religious affiliation(2)	-.992	1.509	.432	1	.511	.371
Religious affiliation(3)	.004	1.836	.000	1	.998	1.004
Place of residence(1)	**-3.330**	**1.217**	**7.486**	**1**	**.006**	**.036**
MIB_Total	**3.443**	**1.535**	**5.031**	**1**	**.025**	**31.266**
Stigma_Total	**9.521**	**2.296**	**17.190**	**1**	**.000**	**13649.664**
Constant	-50.020	10.680	21.935	1	.000	.000

Source: Survey result, 2025

The effect of age as a whole is triflingly insignificant (Wald = 7.149, df = 3, Sig. = .067), indicating age do have an effect but not quite high enough to achieve classic expectations. Of the ages, only Age(3) approaches significance (p = .070) and has an Exp(B) of 8.942, indicating respondents of this age group are about 9 times more likely to exhibit the outcome compared to the reference category. This is a possible age-related risk factor that is worth exploring.

Sex of Respondent is a significant predictor (Wald = 5.949, p = .015) with a coefficient of -1.478 for Sex(1). From the odds ratio (Exp(B) = .228), respondents coded as Sex(1) presumably females if so coded are roughly 77% less likely to have the outcome than males. This finding implies a gender difference and possibly one of social, cultural, or psychological origin.

Marital status is important at population level (Wald = 7.102, df = 2, p = .029). Marital status(2) is important (p = .034, Exp(B) = 40.007), which means that the individuals in this category possibly divorced or widowed are 40 times more likely to possess the outcome than the reference category. This very large effect size reflects a very strong association between marital deterioration and the dependent variable.

Level of Education The educational level also contributes significantly (Wald = 21.220, df = 4, p < .001), and each group makes a significant contribution. The odds ratio in all groups ranges from 18.036 to 81.447, indicating that education is associated with considerably higher odds for the outcome. This could be due to increased awareness, money being available, or some other facilitators among the educated population.

Religious group is not a significant predictor of the outcome (Wald = 2.512, df = 3, p = .473). The separate groups are not significant, and the odds ratios are slightly less than 1 or roughly 1, indicating little effect. This suggest religious identity in this case does not affect a strong influence on the behavior.

Residence is a significant predictor (p = .006), having a negative coefficient (-3.330) and extremely low odds ratio (Exp(B) = .036). This shows that people in this category presumably rural or urban according to coding are 96% less likely to have the outcome.

Beliefs about Mental Illness (MIB_Total) is at p = .025, and Exp(B) = 31.266. Measures of this variable are greater in relation to astronomically greater chances of the outcome. If they are

measures of beliefs about mental illness, then what it implies is that they have significant effects on behavior or attitude, maybe towards help-seeking or stigma.

Stigma is the large predictor for delay (Wald = 17.190, $p < .001$) with odds ratio of 13,649. This indicates stigma has a strong relation with delay of mental illness.

Interpretation of Odds Ratios

Strong Positive Relationships Wildly high odds ratios for some variables indicate strong positive relationships with the outcome. Education level(3) and Education level(4) both have Exp(B) values of 81.447 and 37.235, respectively, which indicate that participants who are more educated are overwhelmingly more likely to have the outcome. Similarly, Marital status (2) and MIB_Total have Exp(B) estimates of 40.007 and 31.266 to support evidence for marital disruption and illness beliefs related to mental illness as good predictors. Where confidence intervals are more than 1, for instance with particular age strata and religion, the effect is not found to be statistically significant. Precision as well as strength of odds ratios should thus be taken into account for proper interpretation.

4.2. Discussions

4.2.1. Socio-Demographic Factors Influencing Delay

Age and Help-Seeking Behavior: While age did not emerge as a statistically significant predictor in the overall model ($p = .067$), the odds ratio for the third age category ($Exp(B) = 8.942$) suggests a notable trend. Specifically, older respondents appear more likely to engage in help-seeking behavior or utilize psychiatric services, indicating a potential age-related increase in service use despite the lack of significance at the model level. This fits with Mackenzie et al.'s (2006) findings which showed older people were more likely to be treated for mental health problems if less stigmatized. Your wide confidence interval, however, signals heterogeneity, i.e., heterogeneity by age in other studies (Gonzalez et al., 2005).

The extremely low and highly significant negative exponent for Sex(1) ($Exp(B) = 0.228$, $p = .015$) shows that the outcome is less likely in women. This is in agreement with the existing literature finding that women are most likely to be affected by such access barriers to mental health care as stigma and caregiving responsibilities (Thompson et al., 2004). Other studies have confirmed that women are less likely than men to seek psychological help (Vogel et al., 2007), which suggests the possible difference or specificity of the outcome measure of your study.

Male gender's association with delay in seeking help ($Exp(B) = 0.228$) concurs with Senait et al. (2020), who found marital status and shame as predictors of delay. Even if their studies concentrated on unmarried and divorced women, the model improves with the inclusion of gender-based dissuasive. Geographical location ($Exp(B) = 0.036$) also emerges as a predictor of delay, as noted by Negash et al. (2023), which demonstrated that distance to health facilities (>5 km) had a significant negative effect on accessing care. Help-seeking behavior is constructed both by social roles and logistical barriers, would thus seem, from these results.

Marital Status and Vulnerability Marital status(2) was similarly very strongly positively related ($Exp(B) = 40.007$, $p = .034$) and, as predicted, indicates that individuals who fall into this category—i.e., divorced or widowed—are significantly more likely to have the experience. This is also supported by data indicating marital decline is associated with more psychological distress and greater utilization of services by Simon and Barrett (2010). Higher need and lower

social support could be the heightened risk, affirming the possibility of targeted interventions for such a group.

Highest educational level was the best predictor in Exp(B) model with coefficients ranging from 18.036 to 81.447 and all categories being statistically significantly different from one another. This supports the documented positive association between education and mental health literacy for the purpose of facilitating help-seeking and stigma reduction (Jorm, 2000). More education is related to higher knowledge of mental illness and better treatment access (Corrigan et al., 2005), and this is thus also a valid and realistic result in the study.

The finding that higher levels of education predict delays in seeking help (Exp(B) = 81.447) may be surprising. However, it supports Negash et al. (2023), which found that individuals with education at or above the diploma level were unlikely to delay treatment. The results indicate that educated individuals internalize stigma or prefer self-management.

Interestingly, the model did not reveal a strong effect from religious affiliation, contrary to other studies that investigated religious healers as a common first point of contact (Senait et al., 2020; Girma & Tesfaye, 2011). This finding could be due to urban living in Addis Ababa, exposure to various treatment options, and secularism possibly illuminating influence of religious identity.

These findings align with some earlier research suggesting that education and gender influence help-seeking behavior (Thornicroft et al., 2007; Mojtabai et al., 2011).

4.2.2. Common Mental Illness Beliefs among Psychiatric Patients

The findings indicate that many patients perceive mental illness as a form of religious punishment. A majority of respondents agreed with statements reflecting supernatural etiology (M = 3.58, SD = 0.494) and punishment for sin (M = 3.48, SD = 0.500), suggesting that culturally embedded spiritual beliefs significantly shape their understanding of mental health. These results are consistent with previous research carried out in Ethiopia and other sub-Saharan African contexts in which mental illness is explained in spiritual terms, curses, or God's punishment (Alem et al., 1999; Girma et al., 2013). Cultural and religious explanations are closely linked to these explanations and may affect help-seeking, in the sense that individuals use traditional or religious healing rather than biomedical care (Abbo, 2011). Theoretically, findings

fit into Kleinman's explanatory model approach to understanding, with cultural beliefs as the deciding factor of illness perceptions and treatment decisions (Kleinman, 1980).

Supernatural beliefs in international level require professional treatment. Working with religious leaders and traditional healers would be a smart way to connect cultural beliefs with medical treatment. This approach can help reduce delays in seeking help and improve adherence to treatment (Kohrt et al., 2018). Additionally, the similar views on biological causes (M = 3.40, SD = 0.491) and shared agreement on the effectiveness of medical treatment (M = 3.56, SD = 0.497) suggest a need for interventions to improve mental health awareness through targeted campaigns. Future research should explore the links between belief systems and treatment outcomes, especially in long-term studies that track changes in beliefs and their effects on recovery paths.

4.2.3. Magnitude and Duration of Delayed Help-Seeking Behavior

A total of 27.8% of respondents reported waiting more than one year before seeking professional treatment, indicating that a significant portion of patients remained untreated for extended periods despite experiencing mental health challenges. These results are consistent with previous research in low- and middle-income countries, where mental care delays are most often found to be due to stigma, illiteracy, and reliance on traditional care (Kohn et al., 2004; Semrau et al., 2015). The average delay period in this research appears longer than in certain urban settings globally, and this introduces into perspective systemic and cultural barriers typical of the Ethiopian context. A more detailed analysis of delay causes underscores the complexity of seeking help.

The most frequent cause (46.1%) reported was fear of stigma, followed by spiritual beliefs (27.8%) and lack of awareness (22.1%). The findings are in line with the theoretical Health Belief Model to the effect that perceived obstacles such as stigma and misinformation would strongly discourage individuals from receiving treatment (Rosenstock, 1974). Moreover, the fact that 36.1% consulted religious leaders and 30.1% consulted traditional healers before consulting medical staff shows strong reliance on culturally based support systems. While economic hardship was only mentioned by 4%, underreporting or normalization of economic need in seeking healthcare may have resulted in overestimation of the economic obstacle. The strengths

of the current study lie in its relatively large sample size and solid classification of delay duration and help-seeking pathways.

Limitations must be acknowledged, however. Cross-sectional design constrains causal inferences, and self-reported results are susceptible to social desirability or recall bias. The study was also conducted within public hospitals in Addis Ababa and might not be generalizable to private or rural healthcare trends.

Follow-up studies need to investigate longitudinal patterns of help-seeking and test interventions that integrate biomedical treatment with culture-responsive interventions. Determining the mechanisms by which delays in care may be reduced is essential to the improvement of prognosis and reduction of the morbidity of untreated psychiatric disorder in Ethiopia and similar settings.

4.2.4. Association between Mental Illness Beliefs, Perceived Stigma, and Help-Seeking Delay

The results of the present study confirm heavily the role of perceived stigma and attitudes towards mental illness in delaying psychiatric patients' help-seeking behavior.

The very high value of the odds ratio for stigma (Exp(B) = 13,649.664, $p < .001$) strongly supports its function as a suppressor of earlier psychiatric treatment. This finding is consistent with strong evidence for stigmatizing establishing both public and internal stigma as strong preventers of the utilization of mental health services (Corrigan, 2004; Clement et al., 2015). The same, the significant effect of mental illness beliefs (MIB_Total: Exp(B) = 31.266, $p = .025$) indicates that patients' causal explanations of mental illness, particularly spiritual or moral aetiology explanations, may affect treatment attitudes and delay formal care entry (Angermeyer & Dietrich, 2006). These findings are also in agreement with theoretical frameworks such as the Attribution Theory, in which causals of illness individuals see as influencing response behavior (Weiner, 1985). While statistical power of the kinds of relationships is indeed validating findings to a degree, methodological inadequacy of the research is also to be considered.

Logistic regression gives unique description of the relationships. The level of stigma necessitates anti-stigma interventions to be placed front and center in mental health policy. This is through

the medium of public awareness campaigns, education at the community level, and inclusion of anti-stigma messages in routine care. Religious leaders and traditional healers providing endorsement for mental health advocacy would represent a crosslink between clinical treatment and cultural belief, and enhanced and earlier help-seeking would ensue. Longitudinal studies will be examined in future studies to examine change over time in stigma and belief and impact on treatment trajectories.

Mixed-method designs can further clarify evidence of stigma lived experience and belief systems, potentially lost to quantitative measurement. Intervention trials of efficacy of stigma reduction interventions and culturally adapted psychoeducation can also yield evidence-based practice to improve mental health outcomes. Last but not least, tackling the belief systems and stigma is not only theoretically compelled but practically unavoidable in progressing with mental health equity and access in Ethiopia and others as well.

Chapter Five: Summary, Conclusions and Recommendations

5.1. Summary

The general aim of this study was to explore the beliefs regarding mental illness and their influence on help-seeking behavior among psychiatric outpatients attending selected public hospitals in Addis Ababa. Specifically, the researcher was focused on determining the degree to which socio-demographic factors, cultural, spiritual and biomedical etiologies, and perceived stigma account for delays in seeking professional mental health care. This research was motivated by the growing concern regarding untreated mental illness and the need to promote early intervention in Ethiopia.

To guide the investigation, four principal research questions were posed: (1) what are the common beliefs regarding mental illness among psychiatric patients attending selected public hospitals in Addis Ababa? (2) What is the prevalence and average duration of delayed help-seeking behavior among psychiatric patients in the selected hospitals? (3) How do beliefs regarding mental illness and perceived stigma relate to help-seeking delay behavior? (4) What are the clinical and socio-demographic determinants of the delay in seeking help for mental health care among study participants?

A descriptive design was used to enable the provision of a picture of behaviors, beliefs, and experiences of patients at a specific moment. The design was employed because of its suitability in collecting data from a big sample and because of its suitability in determining statistical correlations among variables. The study was conducted in selected public hospitals in Addis Ababa to enhance applicability to urban consumers of mental healthcare.

A stratified systematic sampling technique was used in selecting the participants to ensure representation from different hospitals and population groups. 399 psychiatric patients took part in the research. The inclusion criteria were patients who had been officially diagnosed with a psychiatric illness and were in a state to provide informed consent. The sample size was determined using standard statistical calculations to ensure adequate power for analysis.

Data were collected through a standardized questionnaire incorporating both standardized measures and researcher-generated items. Questionnaire sections addressed socio-demographic

information, beliefs regarding mental illness (MIB), perceived stigma, help-seeking behavior, and clinical history. Standardized tools were used to measure stigma and belief constructs to ensure reliability as well as comparability with other research. Quantitative data were analyzed using the SPSS package. Descriptive statistics were utilized to summarize socio-demographic variables and belief patterns. Inferential statistics, including logistic regression, were employed in identifying predictors of late help-seeking behavior. The analysis was geared towards determining the strength and significance of the association between beliefs, stigma, and socio-demographic factors.

The study revealed that the majority of the patients endorsed supernatural and spiritual explanations of mental illness, such as punishment for sin and spirit possession. These were associated with late help-seeking behavior, with the majority of the patients initially seeking religious leaders or traditional healers. Biomedical explanations were less intensely supported, although there was moderate agreement that mental illness was medically treatable.

Over a quarter of the patients (27.8%) delayed for over a year before seeking professional care. Stigma was the most significant predictor of delay with an odds ratio of 13,649.664. Patients who had encountered stigma either internalized or from others were far less likely to seek early care. Attitudes toward mental illness also ranked highly in delay, which points to a need for culturally sensitive education.

Several socio-demographic variables predicted help-seeking behavior. Education level, marital status, and residence location seem to be statistically significant predictors. Against expectations, more education was associated with greater delay, perhaps due to more stigma awareness or self-management dependency. Rural residence was also found to be related to less access and greater delay, pointing toward geographic disparities in mental healthcare.

5.2. Conclusions

After summarizing the findings above, the researcher concludes:

1. This study found that perceived stigma is a major predictor of delayed help-seeking behavior among psychiatric patients. It suggests that mental health programs should prioritize stigma-reduction efforts, including community mobilization and public education, to encourage early intervention.

2. The findings also show that culture or religion-based beliefs about mental illness contribute to delayed treatment. This highlights the need for culturally sensitive education that respects traditional beliefs while promoting biomedical awareness.

3. The study indicated that greater education is linked to more delays in seeking help. This contradicts the assumptions of health education and literacy models, which suggest that highly educated individuals can manage stigma on their own. These issues need to be addressed.

4. The study revealed that residence and gender influence help-seeking behavior. This means mental health care needs to be decentralized and sensitive to gender, ensuring equal access across different social and geographical areas.

5. Additionally, the study showed that religious affiliation was not a strong predictor of help-seeking behavior. Although religious leaders consulted, their influence may not directly cause delays. Therefore, further exploration of their role in reinforcing beliefs and stigma is necessary.

6. The findings indicate that patients in some public hospitals in Addis Ababa often attribute supernatural and spiritual causes to mental illness, such as feeling punished by God or influenced by spirits. This can lead them to seek help from traditional or religious healers instead of medical practitioners, delaying psychiatric treatment. Mental health education must respect cultural beliefs and involve religious and community leaders in reshaping narratives.

7. The results also showed that most patients delayed seeking professional treatment, with 27.8% waiting over a year after symptoms began. Most received informal counseling from religious leaders (36.1%) and traditional healers (30.1%) before seeking hospital care. Delayed treatment worsens clinical outcomes and increases the burden on the health system. Interventions for early

detection, community outreach, and incorporating informal care networks into referral systems are essential to reduce the duration of untreated mental illness.

8. Perceived stigma was the strongest predictor of help-seeking delay, with a very high odds ratio (Exp(B) = 13,649.664). Beliefs about mental illness also significantly predicted delays (Exp(B) = 31.266), serving as psychological and cultural factors that lead to avoidance of treatment. These findings emphasize the importance of stigma reduction programs like public awareness campaigns and peer support groups. Addressing internalized stigma and reshaping beliefs through education can lead to more positive attitudes toward mental health care.

5.3. Recommendations

Hence it is recommended that:

1. Initiate Community-Based Stigma Reduction Campaigns.

What should be done: Develop and post public information campaigns for stigma reduction on mental illness.

Who is responsible: Ministry of Health (MoH), local health bureaus, NGOs with work in the area of mental health (e.g., BasicNeeds, CBM).

How to implement: Use radio, television, and internet social media networks to spread real recovery stories, engage rightful religious and cultural leaders, and sell mental health as a treatable condition.

2. Integrate Mental Health Education into Religious and Cultural Institutions

What should be done: Provide psych education through churches, mosques, and traditional community gatherings.

Who is responsible: Elders, religious leaders, MoH, and mental health workers. How to do it: Train religious leaders and elders with low levels of mental health literacy and convince them to refer referrals to professional services when needed.3. Culturally Sensitive Psychoeducation Materials

How to implement: Create education materials that are sensitive to spiritual beliefs yet encourage biomedical knowledge.

3. Decentralize Mental Health Services to Improve Geographic Access

What should be done: Expand mental health services from urban hospitals to clinics and health centers in peripheral locations.

Who is responsible: MoH, regional bureaus of health, and health offices at the district level. How: Instruct general health workers in basic mental health care and establish referral mechanisms to psychiatric units.

Who is doing it: Ethiopian Public Health Institute (EPHI), universities, and mental health NGOs.

How to do it: Collaborate with anthropologists and psychologists to create brochures, posters, and videos in local languages, which are disseminated at community centers and clinics.

4. Channel Mental Health Literacy Programs at Educated Groups

What should be done: Refute myths and self-management inclination among educated individuals.

Who: Universities, employers, and media.

Who is responsible: Organize workplace mental health days, webinars, and seminars on the importance of early help-seeking and challenging stigma.

5. Provide Training for Health Professionals on Stigma and Belief Systems

What should be done: Give competence to mental health workers to challenge stigma and culturally held beliefs.

Who is responsible: Medical schools, MoH, and professional associations.

How to implement: Integrate modules on cultural competence and stigma reduction into continuing professional development (CPD) activities.

5.4. Implication for Counseling Psychology

The findings of this study offer several important implications for the field of counseling psychology, particularly in urban Ethiopian clinical settings. First, the strong influence of supernatural beliefs and religious interpretations on patients' understanding of mental illness highlights the need for culturally sensitive counseling approaches. Counselors must be equipped to navigate spiritual frameworks while promoting evidence-based mental health education, thereby bridging traditional beliefs with therapeutic models.

Second, the observed impact of perceived stigma on delayed help-seeking behavior underscores the importance of integrating anti-stigma interventions into counseling practice. Counseling psychologists should prioritize psychoeducation, community outreach, and stigma-reduction strategies that empower patients to seek timely care without fear of judgment or social exclusion. This is especially critical in environments where mental illness is often misunderstood or hidden due to cultural taboos.

Finally, the demographic patterns such as age-related differences in help-seeking and the role of education suggest that counseling services should be tailored to specific population segments. Older adults may require more proactive engagement, while younger or less-educated patients may benefit from simplified, relatable counseling formats. Overall, counseling psychologists play a pivotal role in transforming mental health narratives, fostering resilience, and promoting early intervention through culturally attuned and ethically grounded practice.

5.5. Limitations of the study and future suggestions

Despite its contributions, this study has several limitations that should be acknowledged. First, the use of hospital-based sampling may limit the generalizability of the findings to psychiatric patients who do not seek formal care or reside in rural areas. The sample reflects urban service users in Addis Ababa, which may not capture the full spectrum of beliefs and stigma experienced across Ethiopia's diverse regions. Second, the reliance on self-reported data introduces the possibility of social desirability bias, especially in responses related to stigma and help-seeking behavior. Participants may have underreported delays or exaggerated positive attitudes due to perceived expectations.

Future research should consider longitudinal designs to track changes in beliefs and help-seeking behavior over time. Expanding the study to include rural populations, traditional healers, and community-based mental health services would provide a more holistic understanding of mental health dynamics in Ethiopia. Moreover, integrating qualitative methods such as in-depth interviews or ethnographic approaches could enrich the findings by capturing nuanced cultural narratives and lived experiences that quantitative tools may overlook.

References

Abayneh, S., Alem, A., & Hanlon, C. (2021). Stigma toward people with mental illness in Ethiopia: A systematic review and meta-analysis. *BMC Psychiatry, 21*, 366. https://doi.org/10.1186/s12888-021-03346-5

Abbo, C. (2020). Cultural beliefs about mental illness and their impact on help-seeking in Uganda. African Journal of Psychiatry, 23(4), 239-245. https://doi.org/10.1080/09540261.2020.1777748

Abdela, T. (2021). Pathway of patient to Amanuel Specialized Mental Health Hospital: A facility-based cross-sectional study [Master's thesis, Addis Ababa University]. Addis Ababa University Repository.

Adeosun, I. I., Adewumi, T. A., & Jeje, O. O. (2021). Causal beliefs and preferred treatment options for mental illness among Nigerian adults. *BMC Psychiatry, 21*(1), 122. https://doi.org/10.1186/s12888-021-03155-5

Adewuya, A. O., Makanjuola, V. A., & Afolabi, M. O. (2019). Mental illness beliefs and help-seeking behavior among Nigerians: A systematic review. *Social Psychiatry and Psychiatric Epidemiology, 54*(8), 995–1006.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.

Alemayehu, F., & Gebeyehu, D. A. (2021). Perceived stigma and associated factors among individuals with schizophrenia spectrum disorders in Ethiopia. *BMC Psychiatry, 21*(1), 584. https://doi.org/10.1186/s12888-021-03583-3

Alemu, B. (2022). Traditional healing and mental health care utilization in Ethiopia. BMC Psychiatry, 22(1), 115. https://doi.org/10.1186/s12888-022-03763-3

Ali, A. (2021). Mental illness beliefs and stigma: A systematic review. Psychiatry Research, 295, 113591-113591.

American Psychiatric, A. (2022). Diagnostic and Statistical Manual of Mental Disorders (5th ed.,text rev.). American Psychiatric Publishing.

Angermeyer, M. C., & Dietrich, S. (2006). Public beliefs about and attitudes towards people with mental illness: A review of population studies. *Acta Psychiatrica Scandinavica, 113*(3), 163–179.

Asmamaw, A., Abera, A., & Getachew, A. (2022). Public perception and beliefs about mental illness in urban Ethiopia: A cross-sectional study in Addis Ababa. *Ethiopian Journal of Health Development, 36*(1), 22–28.

Asrat, B., Molla, A., & Tsegaye, D. (2023). Mental health service utilization and stigma among adults with common mental disorders in Addis Ababa. *Ethiopian Journal of Health Sciences, 33*(2), 221–230.

Atilola, O., Olugbile, O., & Abiona, T. (2021). Help-seeking behavior for mental illness in African contexts: A systematic review. *International Journal of Mental Health Systems, 15*, 12. https://doi.org/10.1186/s13033-021-00444-x

Ayano, G., Belete, A., & Fekadu, W. (2020). Determinants of delayed help-seeking among individuals with major depressive disorder in Addis Ababa. *African Health Sciences, 20*(3), 1178–1187.

Charlson, F. (2022). Global burden of mental health disorders: A systematic review. The Lancet Psychiatry, 9(2), 101-117.

Chikomo, J., Chipps, J., & Gaede, B. (2021). Application of the Health Belief Model to mental health help-seeking among community members in Zimbabwe. *International Journal of Mental Health Systems, 15*(1), 72.

Chorwe-Sungani, G., Chipps, J., & Mtingwi, D. (2020). Beliefs about mental illness and help-seeking behavior among adults in Malawi. South African Journal of Psychiatry, 26, a1443. https://doi.org/10.4102/sajpsychiatry.v26i0.1443

Clement, S. (2023). Stigma and help-seeking for mental illness: A meta-analysis. Social Psychiatry and Psychiatric Epidemiology, 58(1), 1-14.

Clement, S., Schauman, O., Graham, T., et al. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine, 45*(1), 11–27.

Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2016). The impact of mental illness stigma on seeking and participating in mental health care. Psychological Science in the Public Interest, 15(2), 37-70.

Corrigan, P. W., Watson, A. C., & Barr, L. (2005). The self–stigma of mental illness: Implications for self–esteem and self–efficacy. Journal of Social and Clinical Psychology, 25(8), 875–884. https://doi.org/10.1521/jscp.2006.25.8.875

Debela, B. G., Abebe, L., Hareru, H. E., & Ashuro, Z. (2024). Community perception towards mental health problems in Ethiopia: A mixed-method narrative synthesis. BMC Psychiatry, 24, Article 588. https://doi.org/10.1186/s12888-024-06047-w

Dykxhoorn, J., Fischer, L., Bayliss, B., Brayne, C., Crosby, L., Galvin, B., ... & Walters, K. (2022). Conceptualising public mental health: Development of a conceptual framework for public mental health. BMC Public Health, 22, Article 1407. https://doi.org/10.1186/s12889-022-13775-9

Earnshaw, V. A., & Quinn, D. M. (2019). The impact of stigma on psychological distress: A meta-analytic review. *Clinical Psychology Review, 74*, 101785. https://doi.org/10.1016/j.cpr.2019.101785

Fekadu, A. (2022). Mental health treatment gap in Ethiopia: National survey results. Ethiopian Journal of Health Sciences, 32(1), 7-16.

Fekadu, B., Ayalew, M., & Tadele, K. (2023). Mental health literacy and beliefs in Southwest Ethiopia: A cross-sectional analysis. International Journal of Mental Health, 52(1), 33-42.

Gebreegziabher, M., Wondimagegn, D., & Yimer, T. (2022). Causal beliefs and pathways to care among patients with depression in Addis Ababa. *Ethiopian Journal of Psychiatry, 34*(2), 140–147.

Gebrekidan, A. (2023). Cultural and religious beliefs on mental illness in Ethiopia. International Journal of Culture and Mental Health, 16(2), 97-108.

Getachew, D., Mesafint, G., Solomon, N., Yenealem, K., Muche, Z., & Demelash, S. (2024). Community perception towards mental illness and help-seeking intention in Southwest Ethiopian Peoples Regional State. PLOS ONE, 19(10), e0310512. https://doi.org/10.1371/journal.pone.0310512

Girma, E. (2022). Beliefs and treatment delays among psychiatric patients in Ethiopia. BMC Psychiatry, 22(1), 312-312.

Girma, E., Tesfaye, M., & Wondimagegn, D. (2022). The role of cultural stigma in mental health service delay: A qualitative study in Addis Ababa. *PLOS ONE, 17*(3), e0265872.

Girma, E., Tesfaye, M., & Wondimagegn, D. (2022). Perceived stigma and medication adherence among patients with mood disorders in Ethiopia. *BMC Psychiatry, 22*, 343. https://doi.org/10.1186/s12888-022-03989-1

Girma, E., & Tesfaye, M. (2011). Patterns of treatment seeking behavior for mental illnesses in Southwest Ethiopia: A hospital-based study. BMC Psychiatry, 11, Article 138. https://doi.org/10.1186/1471-244X-11-138

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice Hall.

Gonzalez, J. M., Alegría, M., & Prihoda, T. J. (2005). How do attitudes toward mental health treatment vary by age, gender, and ethnicity/race in young adults? Journal of Community Psychology, 33(5), 611–629. https://doi.org/10.1002/jcop.20071

Gulliver, A., Griffiths, K. M., & Christensen, H. (2019). Barriers and facilitators to mental health help-seeking among young people: A systematic review. *BMC Psychiatry, 19,* 174.

Gureje, O., Lasebikan, V. O., & Kola, L. (2020). Integrating traditional healers into mental health care in Africa: Evidence from Nigeria. *International Journal of Mental Health Systems, 14,* 29.

Hailemariam, M., Fekadu, A., Medhin, G., Prince, M., & Hanlon, C. (2019). Equitable access to mental healthcare integrated in primary care for people with severe mental disorders in rural Ethiopia: A community-based cross-sectional study. International Journal of Mental Health Systems, 13, Article 78. https://doi.org/10.1186/s13033-019-0332-5

Hailemariam, M., Tessema, F., & Ebrahim, J. (2020). Help-seeking behavior and treatment delay among individuals with severe mental illness in Ethiopia. BMC Psychiatry, 20, 354-354.

Hailemariam, M., Tessema, F., & Ebrahim, J. (2019). Help-seeking behavior and treatment delay among individuals with severe mental illness in Ethiopia. *BMC Psychiatry, 19*, 354.

Hatzenbuehler, M. L., Phelan, J. C., & Link, B. G. (2022). Stigma as a fundamental cause of health disparities in marginalized populations. *American Journal of Public Health, 112*(4), 560–568.

Hatzenbuehler, M. L., Phelan, J. C., & Link, B. G. (2016). Stigma as a fundamental cause of population health inequalities. *American Journal of Public Health, 103*(5), 813–821.

Jorm, A. F. (2000). Mental health literacy: Public knowledge and beliefs about mental disorders. The British Journal of Psychiatry, 177(5), 396–401. https://doi.org/10.1192/bjp.177.5.396

Jorm, A. F. (2019). Mental health literacy: Public knowledge and beliefs about mental disorders. *British Journal of Psychiatry, 205*(4), 272–277.

Kassahun, C., Birhanu, Z., & Kibret, S. (2021). Caregivers' experiences of stigma related to childhood mental illness in Ethiopia. *Social Psychiatry and Psychiatric Epidemiology, 56*(7), 1201–1210. https://doi.org/10.1007/s00127-021-02043-0

Kebede, M. (2022). Delayed help-seeking among psychiatric patients in Ethiopia. BMC Psychiatry, 22, 99-99.

Kerebih, H., Abera, M., & Haileselassie, H. (2021). Mental illness beliefs and stigma among university students in southern Ethiopia: A mixed-methods study. *Ethiopian Journal of Health Sciences, 31*(2), 215–224.

Keyes, K. M., Hatzenbuehler, M. L., McLaughlin, K. A., & Link, B. G. (2019). Beliefs about the causes of mental illness and help-seeking behavior: A comparative review. *Annual Review of Public Health, 40*, 307–320.

Knaak, S., Mantler, E., & Szeto, A. (2020). Mental illness-related stigma in healthcare: Barriers to access and care. *Healthcare Management Forum, 33*(1), 33–38. https://doi.org/10.1177/0840470419887313

Kola, L. (2021). Perceived stigma and mental health outcomes in Africa. Global Mental Health, 8, e7-e7.

Liddell, B. J., Byrow, Y., O'Donnell, M., et al. (2021). Beliefs about mental illness and help-seeking behavior among refugees: A mixed-methods systematic review. *Social Psychiatry and Psychiatric Epidemiology, 56*, 1333–1354.

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27, 363–385.

Link, B. G., Yang, L. H., Phelan, J. C., & Collins, P. Y. (2019). Measuring mental illness stigma. *Schizophrenia Bulletin, 45*(4), 717–723. https://doi.org/10.1093/schbul/sby037

Marshall, M., Lewis, S., Lockwood, A., et al. (2021). Association between duration of untreated psychosis and outcome in cohorts of first-episode patients: A systematic review. *Archives of General Psychiatry, 62*(9), 975–983.

Mendenhall, E., De Silva, M. J., & Hanlon, C. (2020). The role of culture in global mental health: A review of current models and a road map for future research. *Social Science & Medicine, 263*, 113132.

Minichil, W., Getinet, W., & Kassew, T. (2021). Prevalence of perceived stigma and associated factors among primary caregivers of children and adolescents with mental illness, Addis

Ababa, Ethiopia: Cross-sectional study. PLOS ONE, 16(12), e0261297. https://doi.org/10.1371/journal.pone.0261297

MoH [Ministry of Health Ethiopia]. (2025). National Mental Health Strategy 2020–2025. Addis Ababa: Federal Ministry of Health.

Mojtabai, R., Olfson, M., & Sampson, N. A. (2020). Barriers to mental health treatment: Results from the National Comorbidity Survey Replication. *Psychiatric Services, 69*(3), 316–323.

Moussa, M. E., Aboueid, S., & Hegazy, A. (2021). Mental illness stigma in sub-Saharan Africa: A systematic review of measurement tools and prevalence. *Social Psychiatry and Psychiatric Epidemiology, 56*, 1453–1465. https://doi.org/10.1007/s00127-021-02062-x

Negash, A. (2021). Mental health stigma and treatment delay in Ethiopia. International Journal of Mental Health Systems, 15(1), 54-54.

Negash, M., Temesgen, B., Kassaw, C., Abebe, L., Moges, S., Sime, Y., & Yimer, S. (2023). Delayed treatment seeking and its associated factors among people with schizophrenia spectrum disorders at Dilla University Referral Hospital, Ethiopia: A cross-sectional study. Frontiers in Psychiatry, 14, Article 1230448. https://doi.org/10.3389/fpsyt.2023.1230448

Nguyen, A. (2023). Cross-cultural mental illness beliefs: Impacts on care-seeking. Journal of Cross-Cultural Psychology, 54(3), 293-308.

Okasha, A. (2021). Institutional stigma in mental health services in Africa. African Journal of Psychiatry, 24(3), 184-190.

Patel, V. (2020). Measurement of beliefs about mental illness in LMICs. Social Psychiatry and Psychiatric Epidemiology, 55(2), 123-135.

Rickwood, D. (2021). Help-seeking for mental health problems: Theory and research. Frontiers in Psychology, 12, 728-734.

Rickwood, D., & Thomas, K. (2012). Conceptual measurement framework for help-seeking for mental health problems. *Psychology Research and Behavior Management, 5*, 173–183.

Saraceno, B., van Ommeren, M., Batniji, R., et al. (2020). Barriers to improvement of mental health services in low-income and middle-income countries. *The Lancet, 370*(9593), 1164–1174.

Schomerus, G. (2021). Measuring perceived stigma in mental illness: Scale development. Journal of Mental Health, 30(1), 11-18.

Ssebunnya, J. (2022). Cultural beliefs and mental illness in LMICs: A review. Global Health, 18(1), 22-22.

Senait, T., Kerebih, H., Hailesilassie, H., & Abera, M. (2020). Pathways to psychiatric care and factors associated with delayed help-seeking among patients with mental illness in Northern Ethiopia: A cross-sectional study. BMJ Open, 10(7), e033928. https://doi.org/10.1136/bmjopen-2019-033928

Simon, R. W., & Barrett, A. E. (2010). Nonmarital romantic relationships and mental health in early adulthood: Does the association differ for women and men? Journal of Health and Social Behavior, 51(2), 168–182. https://doi.org/10.1177/0022146510372343

Tesfaye, M. (2023a). Help-seeking behavior and barriers among Ethiopian psychiatric patients. International Journal of Mental Health Systems, 17(1), 5-5.

Tesfaye, M. (2023b). Stigma and treatment delay among psychiatric patients in Addis Ababa. Ethiopian Journal of Psychiatry, 31(2), 45-54.

Tesfaye, T., Gebreslassie, B., & Mengesha, T. (2022). Traditional beliefs and delayed mental health care in Ethiopia: A qualitative synthesis. *African Health Sciences, 22*(1), 112–119.

Teshager, S., Kerebih, H., Hailesilassie, H., & Abera, M. (2020). Pathways to psychiatric care and factors associated with delayed help-seeking among patients with mental illness in Northern Ethiopia: A cross-sectional study. BMJ Open, 10(7), e033928. https://doi.org/10.1136/bmjopen-2019-033928

Thornicroft, G. (2019). Stigma reduction interventions: A systematic review. The Lancet Psychiatry, 6(7), 587-602.

Thornicroft, G., Mehta, N., Clement, S., et al. (2017). Evidence for effective interventions to reduce mental-health-related stigma and discrimination. *The Lancet, 387*(10023), 1123–1132. https://doi.org/10.1016/S0140-6736(15)00298-6

Vogel, D. L., Wade, N. G., & Haake, S. (2018). Measuring the self-stigma associated with seeking psychological help. *Journal of Counseling Psychology, 52*(1), 165–177.

WHO. (2022). Mental health action plan 2013–2030. Geneva: World Health Organization.

Woldeyohannes, A. (2022). Patterns of mental health service utilization in Addis Ababa. BMC Health Services Research, 22, 456-456.

Worku, T. (2021). Barriers to mental health care in Ethiopian public hospitals. BMC Psychiatry, 21(1), 364-364.

World Health, O. (2021). Mental health: Strengthening our response. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

Xu, Y. (2022). Impact of stigma on help-seeking in mental health: A meta-analysis. Psychological Medicine, 52(3), 562-571.

Yang, L. H., Wonpat-Borja, A. J., Opler, M. G., & Corcoran, C. M. (2020). The stigma of mental illness: Cultural influences and implications for care. *Current Psychiatry Reports, 22*(5), 20. https://doi.org/10.1007/s11920-020-1130-9

Yohannes, Y., Assefa, D., & Alemu, A. (2022). Delayed help-seeking behavior among patients with schizophrenia spectrum disorders in Ethiopia. *International Journal of Mental Health, 51*(4), 345–356.

Appendixes: Questionnaire

ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

SCHOOL OF PSYCHOLOGY

Section A: Socio-Demographic Information

No.	Question	Response Options
1	Age	_____ years
2	Sex	☐ Male ☐ Female ☐ Other
3	Marital Status	☐ Single ☐ Married ☐ Divorced ☐ Widowed
4	Educational Level	☐ No formal education ☐ Primary ☐ Secondary ☐ Diploma ☐ Degree and above
5	Occupation	_____
6	Monthly Income (in ETB)	☐ <1000 ☐ 1000–3000 ☐ 3001–5000 ☐ >5000
7	Religion	☐ Orthodox ☐ Protestant ☐ Muslim ☐ Other (specify): _____
8	Residence	☐ Urban ☐ Rural

Section B: Mental Illness Beliefs (Adapted from Beliefs about Mental Illness Scale)

Please indicate how much you agree or disagree with the following statements about mental illness: (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

No.	Statement	1	2	3	4	5
1	Mental illness is caused by supernatural forces (e.g., evil spirits).	☐	☐	☐	☐	☐
2	Mental illness is a punishment for past sins.	☐	☐	☐	☐	☐
3	Mental illness is due to a chemical imbalance in the brain.	☐	☐	☐	☐	☐
4	People with mental illness are dangerous.	☐	☐	☐	☐	☐
5	Mental illness can be cured by medical treatment.	☐	☐	☐	☐	☐
6	Mental illness is a sign of weakness.	☐	☐	☐	☐	☐
7	Mental illness is inherited from family.	☐	☐	☐	☐	☐
8	Mental illness results from stress or trauma.	☐	☐	☐	☐	☐
9	Mental illness is caused by witchcraft.	☐	☐	☐	☐	☐
10	People with mental illness can recover fully.	☐	☐	☐	☐	☐
11	Mental illness is contagious.	☐	☐	☐	☐	☐
12	Mental illness affects only certain types of people.	☐	☐	☐	☐	☐
13	Mental illness is a lifelong condition.	☐	☐	☐	☐	☐
14	Mental illness is caused by personal failure.	☐	☐	☐	☐	☐
15	Mental illness requires professional help.	☐	☐	☐	☐	☐

Section C: Perceived Stigma (Adapted from Perceived Devaluation-Discrimination Scale)

Please indicate how much you agree or disagree with the following statements regarding how you think others view people with mental illness: (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

No.	Statement	1	2	3	4	5
1	Most people think less of a person who has a mental illness.	☐	☐	☐	☐	☐
2	Most employers not hire someone with a mental illness.	☐	☐	☐	☐	☐
3	People with mental illness are treated unfairly in this community.	☐	☐	☐	☐	☐
4	Most people believe a person with mental illness cannot lead a meaningful life.	☐	☐	☐	☐	☐
5	People with mental illness are avoided by others.	☐	☐	☐	☐	☐
6	Having a mental illness is embarrassing.	☐	☐	☐	☐	☐
7	Most people would not accept a person with mental illness as a close friend.	☐	☐	☐	☐	☐
8	People with mental illness are discriminated against in public services.	☐	☐	☐	☐	☐
9	People with mental illness are blamed for their condition.	☐	☐	☐	☐	☐
10	Most people think that a person with mental illness is weak.	☐	☐	☐	☐	☐
11	People with mental illness face rejection from family members.	☐	☐	☐	☐	☐
12	People with mental illness are often stigmatized in this society.	☐	☐	☐	☐	☐

Section D: Help-Seeking Behavior

No.	Question	Responses
1	When did you first notice symptoms of your mental illness?	☐ <1 month ago ☐ 1–6 months ☐ 7–12 months ☐ >1 year
2	How long did you wait before seeking professional help?	☐ <1 month ☐ 1–6 months ☐ 7–12 months ☐ >1 year
3	Before seeking professional help, did you consult any of the following? (Check all that apply)	☐ Traditional healer ☐ Religious leader ☐ Family/friends ☐ No one ☐ Other: _____
4	What were the main reasons for delaying professional help? (Check all that apply)	☐ Fear of stigma ☐ Spiritual beliefs ☐ Lack of awareness ☐ Financial issues ☐ No support ☐ Distance ☐ Other: _____
5	Have you ever avoided or delayed seeking help due to fear of being labeled mentally ill?	☐ Yes ☐ No
6	How often do you currently follow up with mental health professionals?	☐ Regularly ☐ Occasionally ☐ Rarely ☐ Not at all
7	Are you satisfied with the help you are receiving from the hospital?	☐ Yes ☐ No

አዲስ አበባ ዩኒቨርሲቲ

የትምህርትና የስነ-ባህሪ ጥናት ኮሌጅ

ሳይኮሎጂ ትምህርት ክፍል

ውድ ተሳታፊ

በዚህ የምርምር ጥናት ላይ እንድትሳተፉ በአክብሮት ተጋብዘዋል።

"**የአእምሮ ሕመም እምነቶች፣ የመገለል ስሜት እና የዘገየ እርዳታ የመሻት ባህሪ በአዲስ አበባ፣ ኢትዮጵያ በተመረጡ የህዝብ ሆስፒታሎች ውስጥ ያሉ የአእምሮ ሕሙማን**" ይህ ጥናት በአዲስ አበባ ዩኒቨርሲቲ በካውንስሊንግ ሳይኮሎጂ ሁለተኛ ዲግሪ ለማግኘት ከሚያስፈልጉት መስፈርቶች አንዱ ሆኖ እየተካሄደ ነው። ይህን የጽሑፍ መጠይቅ ለመሙላት ከ15-20 ደቂቃዎችን የሚፈጅ ሲሆን በዚህ ጥናት ላይ የምትሳተፈው/ፊው በገዛ ፈቃድህ/ሽ ነው።ይህም ማለት ካልፈለግክ/ሽ ጥናቱ ላይ አለመሳተፍ መብትህ/ሽ ነው። ሆኖም ግን በዚህ ጥናት ላይ በመሳተፍ የአይምሮ ጥና እና ህክምና ጥራትን በማሻሻል ረገድ የራስህን/ሽን አስተዋጽኦ ለማበርከት ይህ ጥሩ አጋጣሚ ነው።

በጽሁፍ መጠይቁ ውስጥ የምትሰጠኝ/ጪኝ መረጃ ለማንም የማይገለጽና በሚስጥር የሚያዝ ሲሆን በዚህ ጥናት ላይ በመሳተፍህ/ሽ ምንም ዓይነት በህክምናህ/ሽ ላይ የሚፈጥረው ተፅእኖ አይኖርም። በዚህ ቃለ መጠይቅ የሚሰጡት መረጃ ለትምህርት ዓላማ ብቻ እንደሚውል አረጋግጥልዎታለሁ። በዚህ ጥናት እና ምርምር ውስጥ ያለዎት ንቁ ተሳትፎ ለምርምሩ ጥራት ትልቅ አስተዋፅኦ ይኖራዋል። ስለዚህ በምርምሩ ውስጥ በመሳተፍ ድጋፍዎን እንደሚያደርጉልኝ አምናለሁ። ስምዎን መጻፍ አያስፈልግዎትም።

ማንኛውም አስተያየት ወይም ጥያቄ ካለዎት ከታች በተጠቀሱት አድራሻዎች ከምርምርአዘጋጅ ጋር በመገናኘት ሊጠይቁ ይችላሉ።

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ስለ ጊዜዎ እና ትብብርዎ በጣም እናመሰግናለን!

ክፍል 1፡ የተሳታፊ የግል ሁኔታ አመልካች ጥያቄዎች

ተ.ቁ	ጥያቄ	የምላሽ አማራጮች
1	ዕድሜ	_____ ዓመታት
2	ፆታ	☐ ወንድ ☐ ሴት
3	የጋብቻ ሁኔታ	☐ ያላገባ ☐ ያገባ ☐ የተፋታ ☐ ባል የሞተባት
4	የትምህርት ደረጃ	☐ መደበኛ ትምህርት የለም ☐ የመጀመሪያ ደረጃ ☐ ሁለተኛ ደረጃ ☐ ዲፕሎማ ☐ ዲግሪ እና ከዚያ በላይ
5	ሥራ	_____
6	ወርሃዊ ገቢ (በኢቲቢ)	☐ <1000 ☐ 1000–3000 ☐ 3001–5000 ☐ >5000
7	ሃይማኖት	☐ ኦርቶዶክስ ☐ ፕሮቴስታንት ☐ ሙስሊም ☐ ሌላ (ይግለጹ): _____

8	መኖሪያ	☐ ከተማ ☐ ገጠር

ክፍል 2፡ የአዕምሮ ህመም እምነትን በተመለከተ የተዘጋጁ መግለጫዎች

በሚከተሉት የአዕምሮ ህመም መግለጫዎች ምን ያህል እንደሚስማሙ ወይም እንደማይስማሙ ያመልክቱ ፡ (1 = በጣም አልስማማም, 2 = አልስማማም, 3 = ገለልተኛ, 4 = እስማማለሁ, 5 = በጣም እስማማለሁ)

አይ።	መግለጫ	1	2	3	4	5
1	የአእምሮ ሕመም የሚመጣው ከተፈጥሮ በላይ በሆኑ ኃይሎች (ለምሳሌ፣ እርኩሳን መናፍስት) ነው።	☐	☐	☐	☐	☐
2	የአእምሮ ሕመም የሚመጣው ላለፉት ኃጢአቶች ቅጣት ነው.	☐	☐	☐	☐	☐
3	የአእምሮ ሕመም የሚከሰተው በአንጎል ውስጥ ባለው የኬሚካላዊ ሚዛን መዛባት ምክንያት ነው.	☐	☐	☐	☐	☐
4	የአእምሮ ሕመም ያለባቸው ሰዎች አደገኛ ናቸው.	☐	☐	☐	☐	☐
5	የአእምሮ ሕመም በዘመናዊ ሕክምና ሊድን ይችላል.	☐	☐	☐	☐	☐
6	የአእምሮ ሕመም የድክመት ምልክት ነው.	☐	☐	☐	☐	☐
7	የአእምሮ ሕመም ከቤተሰብ የተወረሰ ነው.	☐	☐	☐	☐	☐
8	የአእምሮ ሕመም የሚመጣው በጭንቀት ወይም በአሰቃቂ ሁኔታ (የስሜት ቀውስ) ነው	☐	☐	☐	☐	☐
9	የአእምሮ ሕመም የሚመጣው በጥንቆላ ነው።	☐	☐	☐	☐	☐
10	የአእምሮ ሕመም ያለባቸው ሰዎች ሙሉ በሙሉ ማገገም ይችላሉ.	☐	☐	☐	☐	☐
11	የአእምሮ ሕመም ተላላፊ ነው።	☐	☐	☐	☐	☐
12	የአእምሮ ሕመም የሚያጠቃው የተወሰኑ ሰዎችን ብቻ ነው።	☐	☐	☐	☐	☐
13	የአእምሮ ሕመም የዕድሜ ልክ ሁኔታ ነው.	☐	☐	☐	☐	☐
14	የአእምሮ ሕመም የሚከሰተው በግል ውድቀት ምክንያት ነው.	☐	☐	☐	☐	☐
15	የአእምሮ ሕመም የባለሙያ እርዳታ ያስፈልገዋል.	☐	☐	☐	☐	☐

ክፍል 3፡ መገለል ስሜትን በተመለከተ የተዘጋጁ መግለጫዎች

እባኮትን ሌሎች የአእምሮ ሕመም ያለባቸውን ሰዎች እንዴት እንደሚመለከቱት በሚከተለው መግለጫ ምን ያህል እንደሚስማሙ ወይም እንደማይስማሙ ያመልክቱ ፡ (1 = በጣም አልስማማም, 2 = አልስማማም, 3 = ገለልተኛ, 4 = እስማማለሁ, 5 = በጣም እስማማለሁ)

ተ.ቁ	መግለጫ	1	2	3	4	5
1	ብዙ ሰዎች የአእምሮ ሕመም ያለበትን ሰው ዝቅ አድርገው ያስባሉ።	☐	☐	☐	☐	☐
2	አብዛኞቹ አሰሪዎች የአእምሮ ሕመም ያለበትን ሰው አይቀጥሩም።	☐	☐	☐	☐	☐
3	የአእምሮ ህመም ያለባቸው ሰዎች በዚህ ማህበረሰብ ውስጥ ኢፍትሃዊ በሆነ መንገድ ይስተናገዳሉ።	☐	☐	☐	☐	☐
4	ብዙ ሰዎች የአእምሮ ሕመም ያለበት ሰው ትርጉም ያለው ሕይወት መምራት እንደማይችል ያምናሉ።	☐	☐	☐	☐	☐
5	የአእምሮ ሕመም ያለባቸው ሰዎች በሌሎች ይሸሻሉ.	☐	☐	☐	☐	☐

6	የአእምሮ ሕመም መኖሩ አሳፋሪ ነው.	☐	☐	☐	☐	☐
7	ብዙ ሰዎች የአእምሮ ሕመም ያለበትን ሰው እንደ የቅርብ ጓደኛ አይቀበሉም።	☐	☐	☐	☐	☐
8	የአእምሮ ሕመም ያለባቸው ሰዎች በሕዝብ አገልግሎቶች ውስጥ አድልዎ ይደርስባቸዋል.	☐	☐	☐	☐	☐
9	የአእምሮ ሕመም ያለባቸው ሰዎች ለጤንነታቸው ተወቃሽ ናቸው	☐	☐	☐	☐	☐
10	ብዙ ሰዎች የአእምሮ ሕመም ያለበት ሰው ደካማ ነው ብለው ያስባሉ.	☐	☐	☐	☐	☐
11	የአእምሮ ሕመም ያለባቸው ሰዎች በቤተሰብ አባላት መተው ያጋጥማቸዋል።	☐	☐	☐	☐	☐
12	የአእምሮ ሕመም ያለባቸው ሰዎች ብዙውን ጊዜ በዚህ ማኅበረሰብ ውስጥ መገለል ይደርስባቸዋል።	☐	☐	☐	☐	☐

ክፍል 4፡ የእርዳታ ፍለጋ ባህሪ በተመለከተ ጥያቄዎች

አይ።	ጥያቄ	ምላሾች
1	ለመጀመሪያ ጊዜ የአእምሮ ሕመም ምልክቶችን ያዩት መቼ ነው?	☐ <1 ወር በፊት ☐ 1-6 ወራት ☐ 7-12 ወራት ☐ >1 አመት
2	የባለሙያ እርዳታ ከመፈለግዎ በፊት ምን ያህል ጊዜ ቆዩ?	☐ <1 ወር ☐ 1-6 ወር ☐ 7-12 ወራት ☐ >1 አመት
3	የባለሙያ እርዳታ ከመጠየቅዎ በፊት፣ ከሚከተሉት አንዱን አማክረው ያውቃሉ? (ከሚመለከተው የሚሆነውን አረጋግጥ)	☐ ባህላዊ ፈዋሽ ☐ የሀይማኖት መሪ ☐ ቤተሰብ/ጓደኞች ☐ ማንም ☐ ሌላ፡ _____
4	የባለሙያዎችን እርዳታ ለማዘግየት ዋና ዋና ምክንያቶች ምን ምን ነበሩ? (የሚመለከተውን ሁሉ አረጋግጥ)	☐ መገለልን መፍራት ☐ መንፈሳዊ እምነቶች ☐ የግንዛቤ ማነስ ☐ የገንዘብ ጉዳዮች ☐ ምንም ድጋፍ የለም ☐ ርቀት ☐ ሌላ፡ _____
5	የአእምሮ በሽተኛ መባልን በመፍራት እርዳታ ከመጠየቅ ወደኋላ ብለው ወይም ዘግይተው ያውቃሉ?	☐ አዎ ☐ አይደለም
6	በአሁኑ ጊዜ የአእምሮ ጤና ባለሙያዎች ጋር በምን ያህል ጊዜ ይከታተላሉ?	☐ በየጊዜው ☐ አንዳንድ ግዜ ☐ አልፎ አልፎ ☐ በጭራሽ
7	ከሆስፒታል በሚያገኙት እርዳታ ረክተዋል?	☐ አዎ ☐ አይደለም

Appendix: Assumption Test

Researchers must test for some assumptions prior to using binomial logistic regression to ensure that the model is acceptable. First, the dependent variable must be binary with two and only two values (e.g., yes/no, delay help-seeking/not delay help-seeking). Second, observation must be independent with no clustering or repeated measures that can introduce bias into the results. Third, there is an assumption of no multicollinearity between predictor variables high correlations between independent variables can distort coefficient estimates and lose interpretability. This can be tested using the Variance Inflation Factor (VIF), and values over 10 would typically be taken to indicate multicollinearity issues (Bobbitt, 2020). Logistic regression further requires no outliers or influential observations, which may be tested using Cook's distance or leverage plots.

Another key assumption is the linearity of the logit for continuous predictors, meaning that each continuous independent variable should have a linear relationship with the log odds of the dependent variable. Though logistic regression, unlike linear regression, does not require the relationship between the predictors and the response to be linear, it does require the log odds of the response to be linearly associated with continuous predictors. This can be tested using the Box-Tidwell procedure or plotted interaction terms between predictors and their logs. Finally, model fit can be checked via tests such as the Hosmer-Lemeshow goodness-of-fit test that identifies if predicted probabilities match observed outcomes (Statistics Easily, 2024). Meeting these assumptions increases the validity of the regression output and enables conclusions reached to be statistically as well as practically relevant.

Binary Outcome

To view the binary measure of delay in consultation seeking, I would then code the variable so that those with delay in consultation seeking (those who took more than a month) would be assigned a value of 1, and those who consulted within one month would receive a value of 0. Based on the data, this would then mean coding those with delays of 1–6 months, 7–12 months, or more than one year as 1 (delay), and those who consulted in under one month as 0 (no delay). This two-point coding makes it possible for binomial logistic regression to be employed to

estimate what is linked to a higher probability of delay in help-seeking behavior, e.g., stigma, religious beliefs, or first consultation paths (Bobbitt, 2021).

Independence of Observations

To ensure the independence of observations assumption in a binomial logistic regression model, researchers need to ensure that each observation is one and independent case or individual. This assumption is important since logistic regression is based on the understanding that the outcome of an observation does not affect another. The violations can also take place in the situation where data has been gathered from repeated measures, matched pairs, or groups that are clustered, thereby producing biased estimates in addition to increased levels of significance (Statology, 2020). A quick test is to plot residuals against data collection order or time to determine whether there are patterns if the residuals fall completely randomly, then the assumption is most likely met because in such instances, if the respondents replied independently and there were no repeated measures or groupings (e.g., from the same treatment group or household), then the independence assumption is met.

No outlire

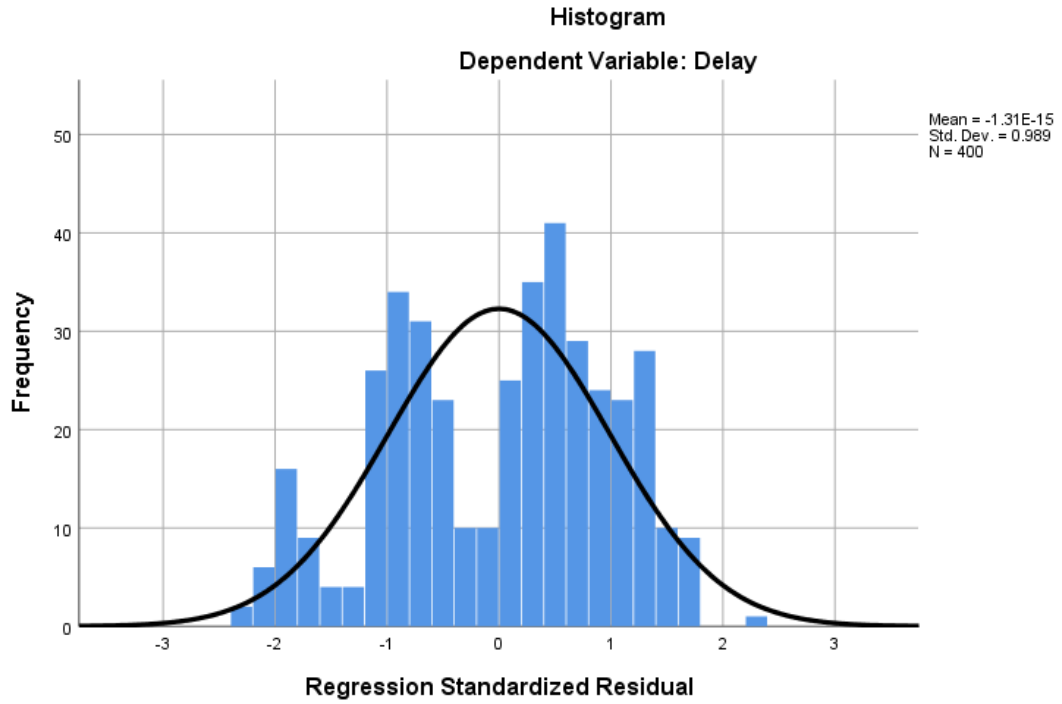

Figure 2: Histogram for assumption test

Source: Survey result, 2025

To satisfy the no outlier's requirement in binomial logistic regression, single observations must not significantly affect model estimates. Outliers skew regression coefficients and make the results irrelevant. This can be checked through diagnostic statistics such as standardized residuals, Cook's distance, and leverage values. Typically, residuals on the standardized scale greater than ±2.5 or ±3 can represent potential outliers, and greater than 1 may reflect influential cases with Cook's distance (Bobbitt, 2021). In the present studies, if none of the cases have values greater than these values, the no-outliers assumption holds, and it supports results validity from logistic regression.

Linearity of the Logit (Box-Tidwell Test)

Table 12: Linearity of the Logit (Box-Tidwell Test)

Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	MIB_Total	-11.663	26.761	.190	1	.663	.000
	Interaction	6.085	11.332	.288	1	.591	439.019
	Constant	14.079	44.200	.101	1	.750	1301876.835

a. Variable(s) entered on step 1: MIB_Total, Interaction.

The logit linearity assumption, tested according to the Box-Tidwell procedure, considers whether the continuous independent variables are linearly related to the log odds of the dependent variable. This is extremely important in the validity of logistic regression models. In the output, interaction effect between the continuous predictor (MIB_Total) and log transformation of the same is depicted by a non-significant p-value (Sig. = .591), which means that the interaction is not significant. The same holds for the main effect of MIB_Total, which possesses a non-significant p-value (Sig. = .663). All these results confirm that linearity between MIB_Total and the logit of the response variable is adequate, and therefore the assumption holds. Also, Wald statistics for MIB_Total and the interaction term are negligible (.190 and .288 respectively),

confirming the lack of serious deviation from linearity. Large.-error and abnormal Exp(B) values can be expected to be caused by scaling or distribution characteristics of variables but not contrary to the concept on linearity. Thus, from the output of the Box-Tidwell test, logit's linearity assumption is satisfied, thereby justifying the entry of MIB_Total into the logistic regression equation.

Multicollinearity (VIF)

Table 13: Multicollinearity (VIF)

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Age of the respondent	.610	1.640
	Sex of the respondent	.735	1.361
	Marital status of the respondent	.885	1.130
	Education level	.698	1.433
	Monthly income category	.433	2.308
	Religious affiliation	.866	1.154
	Place of residence	.486	2.056
	MIB_Total	.880	1.136
	Stigma_Total	.619	1.615

Source: Sample survey result, 2025

Multicollinearity assumption was verified by the use of Variance Inflation Factor (VIF) values, which determine the strength of linear relationship of a predictor with other predictors in the model. All the VIF values used in the analysis were between 1.130 and 2.308, much lower than the widely applied threshold value of 10, and lower than the stricter threshold value of 5 (Field, 2013). This confirms there is no multicollinearity problem among any of the independent variables. Confirming this outcome are corresponding tolerance values, all above .40. Thus, the assumption of multicollinearity is met, and it indicates that predictors of the logistic regression model are actually independent of one another.

Sample Size Adequacy

Logistic regression's sample size adequacy assumption is frequently verified according to the rule of thumb, which recommends at least 10 cases per predictor variable to make stable and unbiased estimates (Agresti, 2007). In this analysis, with 399 patients and enough predictors, this assumption is easily satisfied. This sample size has adequate statistical power to identify important effects and minimizes the risk of over fitting or unstable coefficient estimates. The sample size assumption is thus fulfilled, and the reliability of the logistic regression analysis is guaranteed.