

**DETERMINANTS OF MENTAL HEALTH STATUS OF PRIMARY CARE
GIVERS OF CHILDREN WITH MENTAL DISORDERS ATTENDING
CHUKA COUNTY REFERRAL HOSPITAL, KENYA**

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Requirements for the Award of the Degree of Master of Science in Nursing
(Mental Health and psychiatry) of Chuka University**

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DECLARATION AND RECOMMENDATION

Declaration

This thesis is my original work and has not been presented for an award of diploma or conferment of degree in any university.

Signature: Date

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Recommendation

This thesis has been examined, passed and submitted with our approval as university supervisors.

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DEDICATION

This thesis is dedicated to my mother, Agnes Kiraithe, for caring for my late sister Christine Kananu Kiraithe, who lived with a Mental disorder for twenty-one-years

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I owe special thanks to my Father in Heaven for good physical and mental health during this process up to the end of this thesis.

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ABSTRACT

Primary caregivers play a crucial role in supporting children with mental disorders. Approximately 1 out of 9 children with serious mental disorders have a significant degree of disability and this makes them very dependent on care givers to meet physical and emotional needs. Therefore, mental illness in children will affect primary caregiver personal, physical, mental, social, and financial life thus increasing the risk of psychological distress. This study aimed to assess the determinants of mental health status among primary caregivers of children with mental disorders attending Chuka County Referral Hospital. An analytical cross-sectional design was employed and 156 caregivers recruited through census sampling. Quantitative data was collected using questionnaires and qualitative data using key informant interview where 3 Health care workers were purposively sampled. Instruments were pretested at Embu Level 5 Hospital. Permit to collect data was sort from NASCOSTI, Chuka University and Chuka County Referral Hospital. Participation was voluntary, informed consent were signed, confidentiality was maintained throughout the process. Quantitative data obtained was edited, coded and analyzed using statistical package for social science version 23 computer software using frequencies, percentages, mean and standard deviation. Chi square and regression were used to explore the association between individual/health facility related determinants of caregivers with mental health status at $p < 0.05$. Qualitative data were transcribed verbatim and analyzed thematically using NVivo 12. Results showed that 71% ($n = 110$) of caregivers experienced poor mental health, with stress (20.4%) being the most prevalent, followed by depression (17.2%) and anxiety (15.8%). On social demographic characteristics, there was significant associations between mental health status and age of caregiver ($\chi^2 = 25.05$, $p = 0.012$) and caregiver child relationship ($\chi^2 = 13.66$, $p = 0.003$). On individual related factors, source of income ($\chi^2 = 19.6$, $p < 0.001$), financial ability ($\chi^2 = 38.0$, $p < 0.001$), frequency of social gatherings ($\chi^2 = 31.9$, $p < 0.001$), support group membership ($\chi^2 = 10.8$, $p = 0.001$), caregiver knowledge ($\chi^2 = 28.4$, $p < 0.001$) and stigma were positively correlated with poorer mental health outcomes ($r = 0.46$, $p = 0.001$). On health facility related determinants, staff attitude ($\chi^2 = 7.36$, $df = 2$, $p = 0.025$), medication availability ($\chi^2 = 22.1$, $df = 3$, $p = 0.001$), staff availability ($\chi^2 = 17.1$, $df = 2$, $p < 0.001$), cost of care ($\chi^2 = 27$, $df = 3$, $p < 0.001$) were significantly associated mental health status. Caregivers who reported high cost of care were 11.5 times more likely (AOR = 11.455, 95% CI: 3.607–36.372, $p < 0.001$) to develop poor mental health status. In summary age and relationship to the child were significantly associated with caregivers' mental health status with young and the elderly caregivers demonstrating poor mental health status. Caregivers experienced significant emotional distress predominantly depression, anxiety, and stress. Individual determinants were, economic status, social network, stigma, and poor knowledge. Facility related determinants were high treatment costs, poor staff attitudes and shortage of medical drugs and medical staff. The study recommends integration of mental health services in primary health care services to make the services affordable and available, rolling out social support groups both in facilities and community. Further study on evaluating the effectiveness of psychological counselling services in improving care givers mental health status.

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ABBREVIATIONS AND ACRONYMS

ADHD	Attention Deficit/Hyperactivity Disorder
ASD	Autism Spectrum Disorders
COVID 19	Corona Virus Disease 19
DASS	Depression Anxiety and Stress Score
DSM	Diagnostic Statistical Manual of Mental health
HCPS	Health Care Providers
LMIC	Low- and Middle-Income Countries
NACOSTI	National Commission for Science, Technology & Innovation
NDDs	Neurodevelopmental Disorders
QOL	Quality of Life
SPSS	Statistical Package for Social Sciences
SHA	Social health authority
SDH	Social Determinants of Health
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background Information

Mental disorders in children have been rated among the top 10 illness in the globe with a prevalence which is approximately 13.7 %, 12 % in Africa and 12.1% in Kenya (Global Burden of Disease 2024). Mental disorders in children causes a significant degree of disability and approximately 90% of them depend on caregivers in order to meet dairy physical and emotional needs (Udoh et el., 2021). Therefore, mental illness in children will affect primary caregiver personal, physical, mental, social, and financial life (Andualem et el., 2024). As a result, caregiving burden increases which if not given attention and support eventually leads to mental ill-health, characterized by stress, anxiety, and in more severe cases depression among caregivers (Cham et el., 2022).

Alsaad et al., (2023) reported that, on average of 30-50 % of persons providing care had a significant level of mental distress and were more vulnerable to developing mental health issues in comparison to other individuals in the population. A similar prevalence of care giving burden of 31.67% was reported in a meta-analysis involving 39 studies in 23 countries. This indicated an increased risk of caregivers developing mental illnesses (Cham et el., 2022). Udoh et el., (2021) associated the mental burden among caregivers to inadequate information and lack of preparedness in terms of knowledge and skill to perform the care giving role. In addition, care giving demands a lot of time and physical energy from the care provider. This is associated with the fact that most of these children are fully dependent on the caregiver. Therefore, this may affect other aspects of caregiver's life like their jobs, social circles, relationships and overall physical health. Leading to isolation and sadness (Maridal et el., 2021).

Children with neurodevelopmental disorders frequently present with difficult and specific needs in communication, behavior, and sensory sensitivity domains, they are prone to emotional dysregulation that affect their behaviors. Communication is challenging especially for autistic children (Wang & Zhou, 2022). This demands the caregiver to develop new sets of skills and most of the time no training is undertaken to equip the caregiver in order to deal with these children physical, emotional needs thus increased psychological strain. This exposes the caregiver to frustrations and intense stress (Fernando et al (2022). Caregiving can be physically and mentally

exhausting and the caregiver's health and well-being can be affected negatively as a result of sustained demands and obligations. This might cause social isolation which interferes with their social life including relationships thus leading to feelings of loneliness and significantly influencing their mental health. Most of the time they are too busy that they have no time for themselves thus neglecting themselves which reduced their sense of happiness and life satisfaction. Caregiving can be exhausting and physically draining, leaving caregivers with inadequate time and energy to pursue things that offer them joy and happiness (Mamom & Daovisan, 2022).

Most children with mental disorders can be a threat to themselves, therefore the caregiver must watch them closely in order to ensure they don't harm themselves or others on the other hand being prepared for unavoidable meltdowns and tantrums, can cause a persistent state of hyper vigilance and excessive worry (Green et al., 2018). Caring for these children requires the caregivers to spend many hours meticulously attending to their needs, which can lead to neglect of their own personal growth and wellbeing. In most instances they prioritize care giving responsibilities and neglect social interactions which makes them vulnerable to mental distress. This was also reported by Aman et al., (2019) that caregiving affects caregivers' job, education progress, economic status and social networks. This is attributed to prolonged period of care and the physical energy and effort required in order to give standard care. In most incidences they opt to suspend their personal goals or drop them completely and this can affect their esteem, educational goals and financial stability. Brown and Smith, (2020) opined that in addition to dealing with emotional, psychological issues they are required to manage a number of complicated tasks, such as coordinating several therapies and interventions, like psychological counselling, rehabilitation, managing behavioral difficulties, and penetrating complex healthcare systems during emergencies.

Nkosi and Sibanda, (2020) reported that due to limited resources mental healthcare services were mostly unavailable and coupled by financial distress, significantly heightened anxieties among persons giving care. In South Africa, Mkhize and Dlamini, (2019) found that persons caring for children with autism experience considerable levels of worry, primarily as a result of excessive stigma in the society and inadequate

resources. A study in Uganda, Kagimu et al. (2022), found that care providers often experience mental strain particularly due to inadequate support from the society and institutions where these children are being managed for mental illness.

According to Mwangi et al., (2024) Kenya is one of the African countries with low budget allocation for mental health. Due to budgetary deficits, access to specialized healthcare and support systems for children with mental disorders is limited, and persons giving care face increased difficulties and barriers to care (Mwangi et al., 2020). Patel & Williams, (2024) found that these financial challenges affect effort to access the required care and also contribute to caregiving burnout. In addition, Kamotho (2022) opined that person giving care felt isolated, as most are left to navigate these challenges alone without support from their families or communities mostly due to cultural and society stigma related to with mental disorders. Assessing determinants of mental status will provide evidence-based interventions towards giving care to children with mental disorders.

1.2 Statement of the Problem

Approximately 1 out of 9 children with serious mental disorders have a significant degree of disability and this makes them very dependent on care givers to meet physical and emotional needs daily. Therefore, mental illness in children would therefore have an influence not only on the child only, but also on those who care for them. Care givers who are resilient and have a good support system are able to offer care and maintain emotional stability despite the emotional demands placed on them by giving care to these children. However, studies indicate significant mental problems among care providers of children with mental disorders. On average, global caregiving burden among caregivers of children being managed for mental illnesses is 31.67% and in Africa its higher with 61.73%. Depression is rated as the most common mood disorder among care givers of children with mental disorders with a global prevalence of 36.7%, in Africa 57.7% and Kenya at 43%. There is inadequate data in Tharaka Nithi. In Africa, Kenya, the situation is attributed to inadequate information, limited resources, inadequate mental health services and deep-rooted stigma and discrimination, associated with religion and African traditions and culture. However, few studies have been done in Africa, Kenya included, to determine the factors associated with poor mental health of caregivers. This study assesses the determinant of mental health status

of primary caregivers of children with mental disorders at Chuka County Referral hospital.

1.3 Objectives of the Study

1.3.1 Broad Objective

To assess the determinants of mental health status among primary caregivers of children with mental disorders attending Chuka County Referral Hospital, Kenya.

1.3.2 Specific Objectives

- i. To determine the mental health status of primary caregivers of children with mental disorders attending Chuka County Referral Hospital, Kenya
- ii. To establish the individual related determinants of mental health status of primary caregivers of children with mental health disorders attending Chuka County Referral Hospital, Kenya.
- iii. To identify health facility related determinants of mental health status of primary caregivers of children with mental health disorders attending Chuka County Referral Hospital, Kenya.

1.4 Research Questions

- i. What is the mental health status of primary caregivers of children with mental disorders attending Chuka County Referral Hospital, Kenya?
- ii. What are the individual related determinants of mental health status of primary caregivers of children with mental health disorders at Chuka County Referral Hospital, Kenya?
- iii. What are the health facility related determinants of mental health status of primary caregivers of children with mental health disorders at Chuka County Referral Hospital, Kenya?

1.5 Significance of the Study

This study provided useful data that can be used to develop policies aimed at establishing a comprehensive mental health package for primary caregivers. Health care providers, especially Psychiatrists, Mental Health Nurses, and Psychologists, can utilize the results in offering evidence-based and individualized comprehensive services to persons caring for mentally ill children. In addition, the data generated can serve as

a guide for creating focused support systems and community-based mental health programs. The study also gave caregivers an opportunity to speak out about their issues and fostered caregiver resilience. Furthermore, the findings of this study generated valuable data for scholars and researchers in mental health, enhancing the development of knowledge as efforts were made to prioritize mental health within the health care system.

1.6 Scope of the Study

The researcher collected data at Chuka County referral Hospital, which is the referral center for the entire Tharaka Nithi County. This site was identified because it served children from a diverse population in terms of culture, socioeconomic status, and geographical differences. The study assessed the mental status of the caregivers and determined individual and hospital-related determinants of the mental health status of primary caregivers of children with mental disorders at Chuka County Referral Hospital. The researcher employed an analytical cross-sectional survey design, and both quantitative and qualitative data were collected using questionnaires and key informant interviews. Data were collected for a duration of 1 month (25th July- 25th August 2025).

1.7 Assumptions of the Study

It was assumed that the caregivers voluntarily consented to participate in the study and that they provided genuine and reliable information.

1.8 Operational Definition of Terms

Anxiety	: A person's emotion that is characterized by feeling of excess fear, tension and worry.
Child	: A person under the age of 18.
Determinants	: A factor which affects mental health status
Depression	: Being in a state which presents with prolonged feeling of Sadness, anhedonia and low energy levels.
Individual related determinants	: Personal characteristics and behavior
Good mental health status	: Emotional state with DASS 21 score of 0-7 for anxiety, 0-9 for depression and 0-14 for stress
Health facility related determinants	: Factors affecting availability accessibility and utilization of services in a facility
Mental health	: Mental well-being that makes persons caring for mentally ill children cope with the stresses of bringing them up and work effectively.
Mental health status	: Current state of emotional mental well being
Mental disorders	: A wide range of conditions causes abnormal thinking patterns, behaviors and emotional dysregulation. Thinking and behavior. Examples neurodevelopmental disorders, depressive disorders, post-traumatic stress disorder.
Neurodevelopmental Disorders:	: Disorders that result from damage of a child's developing brain. This includes intellectual disabilities, attention deficit hyperactivity disorder, autism spectrum disorders, learning, motor and communications disorders,
Primary Care Giver	: Individual/ persons who takes the primary role of providing care to children with mental ill health who are not able to take care of themselves
Poor mental health status	: Emotional state with DASS 21 score of 8-42 for anxiety, 10-42 for depression and 15-42 for stress

Stress : The adverse physical and emotional reaction on responsibilities put on persons giving care to children being managed for mental disorders, that makes them nervous

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview of Mental Health Disorders among Children

Diagnostic statistical manual of mental disorders 5th edition defines mental disorders in children as a range of conditions involving changes in emotions, thinking, behavior and impact on child's development, social interaction and overall quality of life. They are classified broadly into; anxiety disorders, mood disorders, behavior disorders, post-traumatic stress disorders and neurodevelopmental disorders (DSM 5, 2020). Globally, mental disorders in children contribute a major proportion of childhood disability across the globe and therefore, mental disorders in children will have an influence on the child and also on those who care for them (WHO 2020). Jenny et al., (2022) reported a prevalence of childhood mental disorders of 12.7% with anxiety leading with 5.2% followed by attention-deficit/hyperactivity with (3.7%). In Africa, Opio JN et al., (2022) found out that the prevalence of mental illnesses among children was 22.9% with the most common being anxiety disorders at 14.4% and depressive disorders at 22.2%. In Kenya 15% of children experiences significant psychological challenges as reported by GBD (2024).

2.2 Mental Health Status of Primary Care Givers

Mental health is psychological wellbeing of individuals that enables them to meet their personal ability and develop coping strategies in orders to manage stresses of life, maintain productivity, and actively contributing to the welfare and growth of the community. Mental health is crucial in decision making, maintenance of healthy relationships and shaping the world around us (WHO, 2022). It is estimated the 1 out of 8 people globally were living with at least one mental disorder, the most common being depression and anxiety. This translate to 301 million people worldwide with anxiety disorder, 280 million being managed for depression, with 85% of these people living in low-income countries (Mental health atlas, 2020). WHO's Comprehensive Mental Health Action Plan 2013-2030 recognizes the essential role of mental health in achieving health for all people. The plan includes 4 major objectives: To strengthen effective leadership and governance for mental health, to provide comprehensive, integrated and responsive mental health and social care services in community-based settings; to implement of strategies for promotion and prevention in mental health; and to strengthen information systems, evidence, and research for mental health.

According to Maridal et al., (2021), most people are resilient but the negative effect of giving care impacts on caregiver's psychological state, interferes with social support systems, denies them spiritual nourishment and inability to meet their own physical needs. Caregivers are more vulnerable to developing mental health disorders compared to other individuals in the community as reported by Alsaad et al., (2023). He found out that the prevalence of psychological stress was approximately one-third to one-half of the study population. A meta-analysis that included 39 studies from 23 countries reported a care giving incidence rate of caregiving burden of 31.67%. Moreover, this increased level of caregiving burden, if not managed will subsequently result to mental ill-health, among caregivers of these children (Cham et al., 2022). In a study that was assessing the state of life of 157 individuals taking care of persons with psychological challenges reviewed typical signs of poor quality of living and marked signs of stress depression and anxiety (Olkanomou et al., 2024).

2.2.1 Depression

Globally mental disorders affect approximately 450 persons in the whole world, with depression accounting for 4.4% and anxiety 3.6 % (WHO 2020). Providing care for children with mental illnesses predispose one to increased psychiatric morbidity, in particular depression, due to the prolonged period of care that causes emotional exhaustion (Alsaad et al., 2023). Providing care for children with mental disorders is very demanding, long term and emotionally draining, exposing the caregiver to depression, burnout, sustained increased levels of stress, and marked anxiety (Jones et al, 2018). Depression among persons caring for children with NDDs was significant as reported by Xia et al. (2023) who found that in China 36% experienced high levels of depression.

In the regional context, depression among persons giving care is also significant, Adabilgou et al., (2021) reported that 27% of them in West Africa experienced depression. Similarly, Kouther et al. (2022) found out an increased risk of depression among persons giving care to children with cerebral palsy in Bangladesh.

In Kenya, local research highlights the incidence of depression in persons giving care. In a study by Mbithi (2022) on psychological burden among caregiver of mental ill

children at National Teaching and Referral hospital Mathari, reported 75 % of the caregivers had psychological stress with 36% having depression. Likewise, Musa (2022) found that one in four care givers at Kenyatta National Hospital experienced depressive symptom. This indicates a significant impact of caring on mental health at a local level. Social stigma, depression, financial difficulties anxiety and elevated stresses are experienced by persons giving care to children with NDDs (Wachira et al., 2019). A study by Mbugua et al., (2019) determining the risk of depressive disorder among 114 care providers of children with intellectual disability in Gachie parish Kenya, found out that majority were at risk of depressive disorder.

2.2.2 Anxiety

Anxiety is a predominant mental health issue among persons giving care to children with mental problems (Jones et al., 2020). Cognitive, emotional, physical and social functioning are affected when children develop neurodevelopmental disorders making it very demanding, time consuming and lifelong, in addition to the possible complications and poor outcomes are scaring to persons giving care (Alsaad et al., 2023). According to Jones et al. (2020) these children exhibit challenging behaviors or require extensive support in daily activities which predisposes persons caring for these children to high levels of anxiety. The anxiety levels can be made worse by the unpredictability of the disorder's progression, countless challenges, uncertainties observed in care giving persons daily experiences and the constant need for specialized care (Jones & Brown, 2021). Taylor and Thomas, 2020) identified that children with neurodevelopmental disorders tend to be rather unpredictable and this causes excess worry as a result of uncertainty of their long-term and future dependence on the care givers for survivor. Alansari and Jahrani (2018), found out that in Saudi Arabia 63% of parents, guardians, or care providers of children with autism disorder showed a marked decline in their quality of life (QOL), which led to psychological instability and poor mental state. Persons caring for children with ADHD and autism are constantly vigilant because these children are capable of harming themselves. Therefore, to ensure safety and well-being of these children, the caregiver should closely monitor, while on the other hand anticipating unavoidable meltdowns and tantrums, which can result in a persistent state of hyper vigilance and worry (Green et al., 2018). A meta-analysis done by Xuan et al., (2023), found that 37% of the persons offering care during COVID 19

period had anxiety disorder. This was again reported in China where Zhang et al., (2020) reported that 42% of care givers suffered anxiety. A total of 40 Caregivers in Saudi Arabia in a study using DASS 21 reported moderate depression among 12.5% caregivers, extremely severe depression among 10% and 10% had moderate anxiety (Kouther et al., 2023).

In Africa, a study that assessed 210 care givers for depression anxiety and stress levels amidst family caregivers of children and adolescence with mental disorders in Ghana, found out that about 56.2% had severe anxiety, severe depression in 2% then 78% had between moderate to severe symptoms of stress (Ocansey et al., 2021). In a study in Tanzania Kilimanjaro region involving 212 care givers, 81 % of the caregivers parents and mothers were the majority at 92%. Of the 212, (51%) exhibited poor mental wellness with 42% demonstrating symptoms of anxiety, and 38% depression symptoms (Swai et al., 2024). In Kenya, Musa et al., (2022) established that 43% of the population of Kenyatta National Hospital Caregivers reported anxiety.

2.2.3 Stress

Caregiver stress can predispose to adverse negative outcomes in physical, mental and overall decreased quality of life. Many Caregivers experience associated with increased financial obligation placed on them as they try to meet the needs of the individuals they are caring for. This pressure is also exerted on the family and health care system. Recognizing caregiver stress is key, if necessary, action will be taken to arrest the situation. Caregiving stress can be prevented through an approach that factors physical, emotional, social and psychological needs of caregivers (Broxson & Feliciano 2020).

In the article published by Xuan et al. (2023), it indicated that 59% of care providers of children with neurodevelopmental disorders demonstrated increased stress levels during COVID 19 period. The emotional burden exerted on the caregivers as a result of continuous psychological pressure to meet these children need were overwhelming. In Nepal a total of 102 caregivers in a study among caregivers of differently abled children demonstrated that 58.8% had high level of stress. Children with disability demanded excessive attention, prolonged care and caring for them without support was emotionally draining (Sharma & Bubedi 2022). A quantitative study by Ekas &

Whitman (2011) whose population was 46 female caregivers of children with ASD were interviewed, reported extremely high maternal stress levels. Children with autism most often will demand for care through out, the disorder is complex and need specialized training for the caregiver to offer good support. They are prone to emotional tantrum which can be emotionally draining for the caregiver. According to Green et al., (2019) caregivers stress levels rise due to the unpredictable nature of NDD symptoms, which include behavioral swings and responses to treatment. The caregiver gets frustrated especially when she or he does not notice good progress despite the child being on medications. The behavioral swings are often difficult to manage especially for caregiver who has not gone through professional training. The prolonged strain of raising children with NDDs leads to hyper vigilance, fear and worry. This is characterized by a persistent sense of crisis anticipation and anxiety. Thus, a continuous state of elation which is not good for mental health. (Brown & Smith, 2020). Individuals giving care to children with autism developed extreme stress levels, poor wellbeing and other emotional and psychological problems as compared to those giving care to children without mental illness. This was associated with sustained need to assist the individuals with almost all the dairy physical activities (Alansari & Jahrami, 2018). Expectations of the persons caring for children with NDD of the child becoming better and independent are shattered, when they discover it's a lifelong problem making them feel helpless and stressed (Gona et al., 2011). In Kenya, Osoro (2019) reported high stress levels among persons giving care to children with autism spectrum disorder. Musa et al., (2022) also found significant stress among care givers at Kenyatta National Hospital.

2.3 Individual related determinants Associated with Caregivers' Mental Health Status

Individual related determinants are the personal characteristics or behaviors that may influence the mental health status of the caregivers of children with mental disorders. Among them are age, marital status, role in relationship, stigma, social network, economic status and knowledge levels.

2.3.1 Stigma

Stigma is a set of negative beliefs that a person has about something and it remains a major barrier in the management of mental health conditions, particularly in children with neurodevelopmental disorders (NDDs).it influences not only access to care but

also the acceptability of interventions, quality of social integration, and the overall wellbeing of both children and their caregivers (wang & smith 2019). The World Health Organization (WHO, 2022) emphasizes that stigma, prejudice, and discrimination associated with mental health conditions are deeply entrenched in cultural beliefs and social stereotypes. These negative perceptions often delay help-seeking, limit opportunities for education and employment, and perpetuate marginalization of affected families.

Caregivers of children with NDDs face extraordinary psychosocial challenges as they contend with misconceptions within families, communities, and health systems. Wang and Smith (2020) noted that caregivers frequently struggle with both self-stigma and societal stigma, which fuel feelings of guilt, shame, and inadequacy. This dynamic is exacerbated by the perception that having a child with mental illness reflects parental failure or poor upbringing. Kim and Park (2021) highlighted that such misconceptions push many caregivers into social isolation to avoid judgment, leading to heightened anxiety and reduced social support. The internalization of stigma not only harms caregiver mental health but also weakens their ability to advocate for and effectively support their child.

Recent evidence from African contexts illustrates how stigma is reinforced by cultural and religious interpretations of mental illness. Minichil et al. (2019), in a study conducted in Ethiopia, found that misconceptions about the causes of mental illness were widespread, with many attributing conditions to witchcraft, the “evil eye,” demonic possession, or punishment from God. These beliefs imposed psychological trauma on caregivers, who often faced blame from both family and community members. Minichil et al. (2021) further reported that nearly one in five caregivers of children with mental illness in Ethiopia felt stigmatized, with stigma strongly correlated with symptoms of depression.

Comparable findings have been documented across sub-Saharan Africa. Mkabile et al. (2021) observed that in Ethiopia, Uganda, Kenya, and Zambia, intellectual disability in children is frequently attributed to curses, failure to observe cultural traditions, or spirit possession. As a result, caregivers are shamed in public, isolated from community

functions, and sometimes given derogatory labels such as “family of mad people.” In a study of 408 caregivers, 38.5% reported direct experiences of stigma, and many were already experiencing depressive symptoms linked to social exclusion and neglect. This highlights how stigma not only erodes social standing but also contributes directly to poor caregiver mental health.

In Kenya, stigma is similarly entrenched. Wachira et al. (2019) found that caregivers of children with NDDs experienced a combination of social stigma, financial strain, anxiety, and elevated stress levels. Stigmatization compounded their already heavy caregiving burden, leaving them more vulnerable to depression and emotional exhaustion. Earlier work by Gona et al. (2011) in Kilifi revealed that caregivers often reported feelings of guilt, hopelessness, and poor self-concept as they struggled to accept their child’s condition. These experiences were linked to “shattered dreams,” uncertainty about the child’s future, and lack of information about the condition. Although conducted earlier, the findings remain consistent with contemporary evidence, showing how stigma perpetuates psychological distress across time and settings.

2.3.2 Social Support System

Social support has been widely recognized as a protective factor for mental health among caregivers of children with mental disorders and neurodevelopmental disabilities (NDDs). Poor social networks and social isolation often lead to excessive worry, low self-esteem, and hopelessness, which predispose caregivers to depression and anxiety (Patel & Williams, 2023). Minichil et al. (2019), in a study involving 416 caregivers, reported that weak support systems were significantly associated with higher depression rates, particularly among those who had provided care for more than five years. The study emphasized that prolonged caregiving without sufficient support increases emotional exhaustion and risk of mental illness.

Evidence from Africa further highlights the role of social support in buffering psychological distress. Zuurmond et al. (2019) in Ghana found that support groups provided caregivers of children with disabilities an avenue to reduce feelings of social exclusion that often arise within their immediate communities. Participation in such

groups offered opportunities to share experiences, ventilate fears, and access accurate information about the child's condition. These interactions helped caregivers reduce self-blame, restore self-acceptance, and build confidence in their caregiving roles. Similarly, Minie et al. (2024) in Ethiopia reported that caregivers of patients with deteriorating mental illnesses who lacked social support were twice as likely to develop depression compared to those with strong support systems.

The literature suggests that social support operates at multiple levels -family, peer, community, and institutional. Family support, such as encouragement and shared caregiving responsibilities, is vital in reducing caregiver burden and promoting resilience (Cheng et al., 2020). Community support, often in the form of faith-based networks, neighborhood solidarity, or cultural associations, provides emotional reassurance and practical help (Abubakar et al., 2017). At the institutional level, NGOs and government programs that organize caregiver support groups or peer counselling have been shown to reduce stress and improve coping capacity (Hastings & Taunt, 2002; Iemmi, 2017).

Conversely, absence of supportive networks increases vulnerability. Studies from high-income countries echo these findings. For example, Giallo et al. (2015) in Australia reported that social isolation was a strong predictor of depressive symptoms among parents of children with autism spectrum disorder. Similarly, Hayes & Watson (2013) found that parents with limited social support reported greater parenting stress and poorer psychological wellbeing. These findings underline that social support is universally relevant, regardless of socioeconomic context.

In Kenya and other parts of sub-Saharan Africa, stigma surrounding disability often weakens social support systems. Gona et al. (2016) documented that caregivers in Kilifi County experienced high levels of social rejection, which worsened their psychological distress. Caregivers often faced exclusion from family gatherings, community events, and even religious spaces, further limiting opportunities to seek help. Yet, where peer-support initiatives were introduced, caregivers reported improved mental health, greater self-efficacy, and stronger community integration (Gona et al., 2018).

2.3.3 Economic Status

Caregiving for children with mental disorders and neurodevelopmental disabilities (NDDs) is associated with considerable financial costs that directly affect caregivers' mental health. In most cases the child has special needs as compared to normal children. According to Chen et al. (2019), caregiving is expensive and difficult to sustain, as children often require lifelong medication, frequent hospital admissions, and at times costly inpatient care. In addition, many children with disabilities need assistive devices, mobility aids, and home modifications to improve their quality of life. These recurring expenses stretch household finances and contribute to excessive worry, financial instability, and psychological strain. Similarly, Wang and Smith (2020) observed that caregivers of children with NDDs face persistent financial challenges, as they struggle to balance the various treatment modalities and options. This often provoke anxiety and feelings of helplessness, particularly when the costs outweigh available resources.

Evidence from Asia shows how economic constraints interact with mental health outcomes. Zhang et al. (2021), in China, reported that caregivers of children with developmental delays and intellectual disabilities had higher incidences of depression and anxiety compared to the general population. This association was strongest among older caregivers such as grandparents, who often have fewer financial resources, and among those from low socioeconomic and educational backgrounds. Martinez et al. (2022) emphasized that navigating complex healthcare systems is itself financially demanding, with caregivers struggling to meet the costs of rehabilitative services, psychological therapies, and specialized educational programs. He reported that financial strain, compounded by behavioral difficulties in the children, left caregivers feeling emotionally overwhelmed and socially isolated.

Several studies point to financial strain as a primary source of caregiver distress. Adeyemi (2020) described financial challenges as the most pressing concern for families caring for children with mental disorders, as the costs of medical care, transport, therapies, and specialized education accumulate over time. Patel and Williams (2024) further demonstrated that these financial difficulties not only limit caregivers' ability to secure required health services but also exacerbate stress, anxiety, depression, and burnout. Johnson et al. (2023) confirmed that recurring medical,

psychological, and rehabilitative expenses acted as chronic stressors, leaving caregivers vulnerable to emotional exhaustion and feelings of despair.

The impact of financial status is not limited to direct medical costs; it also extends to lost income as a result of leaving their jobs to take care of these children. Others have reduced economic productivity because they will work for lesser hours. Ali et al., (2021) reported that caregivers often mothers are forced to reduce work hours or leave employment altogether to provide round-the-clock care. This dual burden of income loss and rising expenses intensifies poverty cycles and contributes to a heightened risk of depression. Furthermore, economic hardship may reduce caregivers' ability to engage in self-care, pursue leisure activities, or seek social support, thereby worsening their psychological wellbeing (Abdullah et al., 2020).

The situation is similar in Africa. A South African study by Schneider et al. (2016) found that caregivers of children with intellectual disabilities reported significant financial stress, often selling household assets or taking informal loans to cover treatment costs, which in turn perpetuated debt and stress. In Nigeria, Onukwugha et al. (2020) reported that the high cost of psychiatric medications and rehabilitative care created barriers to consistent treatment, leaving caregivers anxious about relapse and long-term care needs. These findings align with international evidence showing that financial insecurity is a consistent predictor of poor caregiver mental health outcomes.

In Kenya, the relationship between financial status and caregiver wellbeing has also been documented. Musa et al. (2022) at Kenyatta National Hospital found that employed caregivers and those residing in urban areas experienced lower stress levels compared to unemployed caregivers, suggesting that financial stability acts as a protective factor. Gona et al. (2011), in a study conducted in Kilifi County among 104 caregivers of children with disabilities, similarly reported that inadequate financial resources contributed to psychological stress, frustration, and low self-esteem. The authors emphasized that lack of adequate income limited caregivers' ability to access essential services, thereby worsening both caregiver and child outcomes

2.3.4 Knowledge of Mental Disorder their Children are suffering from

According to WHO (2020) in a family set up, those persons who assist in providing care to mentally ill patients play a very integral role which cannot be ignored. since most of these patients have major intellectual disability, the caregivers are mandated to ensure effective management of mental health issues in all family members who are affected. Caregivers are on the front line in giving support and ensuring all their physical, spiritual, emotional needs are met. Thus, knowledge and understanding of available services and resources is very important.

According to Thakur (2022), informed caregivers are better placed to provide comprehensive care, support, and advocacy for people struggling with mental health conditions. However, if the caregiver does not have adequate information this will affect caregivers' wellbeing. Greater understanding equips caregivers to manage their own psychological needs and physical wellness as they provide care to others. This underscores the need for adequate knowledge on caring for mentally ill patients.

In a study involving 100 care givers that explored the awareness gap among persons giving care to mentally ill patients in Davanger, reported that 72% of caregivers had low knowledge levels and 28% moderate knowledge. It was further reported that the care givers found it difficult to provide care without adequate information on available treatment options, support systems, and other psychological interventions. This makes them vulnerable to poor mental state because of sustained stress. (Nirmala et al.,2023).

In a study involving 40 caregivers which explored on the effectiveness of psychoeducation of caregiver's mental health status as they care for children with autism, reviewed that those with psychoeducation interventions had better mental health as in comparison to those who did not partake the programme (Ara et al.,2014). The results underpin the importance of adequate information for effective service as a caregiver and on the other hand fostering care givers resilience. However, (Vincent et al., 2022) reported that 8.7% of care givers had adequate level of knowledge 73.9% had moderate level of knowledge on mental illness and only 17.4% had inadequate knowledge. Chilale et al; (2017) found out understanding the source of mental illness in terms of biological factors, psychological factors and social factors helps in building a

positive help seeking behavior for most mentally ill patients and their caregivers. The study also reported that beliefs on witchcraft and spirit possession play a major role whether patients will seek help. While participants reported benefits to hospital-based management, they also felt that alternative methods could not be ignore, therefore adequate medical knowledge becomes a protective factor.

In Kenya, Gona et al. (2011) in a study in Kilifi among 104 persons caring for children with disability found out that they experienced stress due to inadequate information and skill about the problem and how to manage them. In addition, health care workers also underestimated their emotional distress and the need for information leading to frustration and stress.

2.4 Health Facility Determinants of Mental Health Status of Caregivers

Health facility determinants are factors that affect utilization like accessibility of the services, availability of services and health care worker's attitude. These determinants can either increase or decrease the risk of developing poor mental health status amongst caregivers of children with mental disorders.

2.4.1 Availability of Mental Health Services

The availability of mental health services is a crucial determinant of the wellbeing of caregivers of children with mental and neurodevelopmental disorders. The World Health Organization (2020) identifies the lack of accessible and quality mental health services as one of the greatest barriers to achieving “mental health for all,” particularly in low- and middle-income countries (LMICs). This gap has been attributed to several structural challenges, including a chronic shortage of trained mental health professionals, limited health infrastructure, and persistently low budget allocations for mental health programs compared to other areas of healthcare. In Sub-Saharan Africa, for example, the ratio of psychiatrists to population remains critically low, with some countries reporting fewer than one psychiatrist per 100,000 people, far below the global median. Such gaps severely limit access to timely diagnosis, treatment, and follow-up care for children, while simultaneously increasing the psychological burden on their caregivers (WHO, 2022).

The lived experiences of caregivers further illustrate how service unavailability translates into distress. Yi et al. (2020) documented those caregivers of autistic children often encounter significant delays during screening, assessment, and diagnosis. These delays not only postpone the initiation of interventions but also heighten caregiver stress, frustration, and feelings of helplessness. For many caregivers, prolonged uncertainty around their child's condition contributes to confusion and hopelessness, further eroding their mental health.

Even when services are available, caregivers often struggle to navigate fragmented and complex health systems. Blok et al. (2025) reported that caregivers described difficulties in coordinating between different professionals such as pediatricians, psychologists, therapists, and social workers—who were involved in their child's care. Poor communication and lack of integration between service providers often resulted in inconsistent information, leaving caregivers uncertain about the best course of action. This disjointed approach hindered decision-making and exacerbated caregiver anxiety, as many felt unsupported and excluded from the care process.

Martinez et al. (2022) similarly found that caregivers navigating health systems for children with neurodevelopmental disorders frequently reported feeling overwhelmed by the range of medical, rehabilitative, and psychological services required. Rather than providing relief, the complexity of accessing multiple uncoordinated services compounded caregiver anxiety, especially for those with limited financial resources or health literacy. This reflects a systemic gap where the very services intended to support families may inadvertently add to their stress when not delivered in a streamlined, family-centered manner.

In the Kenyan context, Kimani and Mwangi (2021) reported that caregivers of children with developmental challenges experienced mental strain primarily due to the unavailability of specialized services. The lack of trained professionals, limited access to rehabilitation centers, and long waiting times for consultations contributed to caregivers' feelings of frustration and isolation. Mutua et al. (2022) further observed that caregivers of children with autism and cerebral palsy often experience heightened anxiety, which they linked to inadequate specialized services and societal expectations

around caregiving. In communities where caregiving is perceived as the exclusive responsibility of women, the pressure to fulfill cultural expectations while lacking adequate institutional support compounds the emotional and psychological toll.

2.4.2 Accessibility of Mental Health Services

Accessibility of mental health services remains one of the greatest challenges in Sub-Saharan Africa and other low- and middle-income countries. The World Health Organization Mental Health Atlas (2022) reported that Africa has a critically low ratio of mental health workers, with only about 1.4 mental health professionals per 100,000 people. This is compounded by the fact that the majority of African countries lack a dedicated mental health budget, and in those that do, allocations are often less than 5% of the total health expenditure. Such underfunding severely limits the availability of essential services, resulting in caregivers and patients having to pay for most services out of pocket. This situation places a heavy financial strain on households that are already vulnerable, forcing caregivers to make difficult choices between meeting daily needs and accessing mental health treatment (Nkosi & Sibanda, 2020).

The shortage of specialized personnel and inadequate infrastructure also create geographical and logistical barriers. For example, in South Africa, Mkhize and Dlamini (2019) found that caregivers of children with autism expressed deep concern over the lack of adequate resources and support. These shortages forced many caregivers to travel long distances, increasing both the cost and time burden associated with seeking care. Similarly, Kagimu et al. (2022) in Uganda reported that caregivers of children with mental illness faced significant mental strain due to both insufficient facility-based support and weak social support systems. The limited number of mental health professionals, most of whom are concentrated in urban areas and tertiary hospitals, further compounds inequities in access, particularly for rural populations.

Cost remains another critical barrier. In Sudan, Ali and Agyapong (2015) identified the high cost of psychiatric medications as one of the main reasons for poor utilization of mental health services. Many patients and their caregivers could not afford continuous treatment, leading to treatment discontinuation or reliance on informal care. In addition,

fears about the potential side effects of psychiatric drugs discouraged adherence, leaving both patients and caregivers vulnerable to relapse and heightened stress.

Munakampe (2020) also highlighted broader systemic barriers, including inadequate funding, scarcity of trained staff (mostly concentrated in major urban centers), at both community and facility levels. Caregivers often report experiencing social isolation and discrimination, both of which exacerbate their psychological burden. Poor infrastructure, including inadequate transportation and lack of specialized facilities in rural areas, further restricts access to services. To address these challenges, Munakampe recommended strengthening health systems through integration of mental health into primary care, training of community health workers, and raising public awareness to reduce stigma.

The situation in Kenya reflects many of these continental challenges. Mutiso et al. (2020) reported that mental health services in Kenya are largely confined to higher-level facilities Level 4, 5, and 6 hospitals along with a few mission hospitals and limited private facilities. Crucially, there are no mental health services at Level 2 and 3 health centers, which serve as the first point of contact for the majority of patients, especially in rural areas. This leaves caregivers with the difficult task of traveling long distances to urban centers to seek specialized services, often at considerable cost. The concentration of services in cities also means that rural populations, who form the bulk of Kenya's population, are disproportionately excluded. Additionally, Mutiso et al. noted that mental health remains inadequately funded within Kenya's health budget, further restricting service availability and creating inequities in access.

2.4.3 Attitude of Medical Health Care Workers

The attitude of medical health care workers plays a crucial role in the accessibility and quality of mental health services. Despite global calls for the integration of mental health into primary health care systems, negative perceptions and stigmatizing attitudes among providers remain a major barrier. The World Health Organization (2022) has noted that one of the greatest setbacks to successful integration is the persistence of stigma and unfavorable attitudes among health professionals toward people living with

mental illness. Such attitudes not only undermine the quality of care but also discourage patients and their caregivers from seeking professional help.

Several studies have documented these challenges. Mosaku and Wallymahmed (2017), in a cross-sectional study involving 120 primary health workers, found that most providers expressed discomfort and even aversion toward patients with mental illness. Since these providers are often the first point of contact, their attitudes can have a profound impact on patients' willingness to seek and sustain treatment. Negative encounters with health workers often lead caregivers to avoid formal services out of fear of being emotionally hurt or humiliated.

In a larger study involving 400 nurses and 100 doctors, Ghuloum et al., (2021) revealed that health professionals frequently held negative stereotypes about people with mental illness, perceiving them as aggressive and difficult to manage. Such perceptions contribute to strained provider–patient relationships and foster social marginalization, which in turn increases the psychological vulnerability of caregivers. When caregivers are dismissed, stigmatized, or made to feel unwelcome, their own risk of distress, anxiety, and depression rises significantly.

Similarly, Dalky (2020), in a study involving 541 health care providers, found that many participants admitted they did not like dealing with mental health patients, largely because of inadequate knowledge and training. This lack of competence feeds into negative attitudes and avoidance behaviors, which directly undermine the trust and confidence of caregivers in the health system. Without adequate provider support, caregivers may feel abandoned, leading to disengagement from health services.

From the caregiver perspective, Alahmed et al. (2018) reported that many caregivers perceived themselves as being devalued by health care providers simply because they were caring for children with mental challenges. These negative interactions contributed to feelings of low self-worth and diminished self-esteem, ultimately discouraging families from accessing available mental health services. Similarly, Lien et al. (2019) found that caregivers reported experiences of negative attitudes and discrimination not only in psychiatric settings but also in general health facilities. Such

systemic marginalization exacerbates social isolation, further aggravating mental distress among caregivers.

The Sudanese context provides additional insights into the intersection between provider attitudes and systemic barriers. Ali and Agyapong (2015), in a study involving 103 caregivers and six psychiatric consultants, identified multiple barriers to service utilization, including negative beliefs about mental illness, preference for traditional or spiritual healing, limited number of trained staff, and the centralization of services in major hospitals. Stigma and discrimination from providers were highlighted as major barriers, reinforcing the perception that formal health care was unwelcoming and inadequate.

2.5 Theoretical Framework

This study is grounded on the social determinants of health (SDH) framework as outlined by the World Health Organization (WHO, 2003). The SDH perspective emphasizes that health outcomes are not determined solely by biological or genetic predispositions, but by the broader social, cultural, economic, and physical environments in which individuals are born, grow, live, work, and age. In this context, mental health—just like physical health—cannot be understood in isolation from the lived experiences and everyday conditions of individuals and families.

According to this framework, social determinants such as income, education, occupation, gender, and access to health services interact with community structures and cultural expectations to shape wellbeing across the life course. For example, individuals with stable incomes and secure employment are more likely to access quality health care, afford nutritious food, and live in safe environments, all of which act as protective factors against the onset of mental illness. Conversely, those from socioeconomically disadvantaged backgrounds may experience persistent stressors such as poverty, unemployment, and housing insecurity, which increase vulnerability to psychological distress and other mental health challenges.

The WHO (2003) also stresses that inequalities in these determinants lead to health inequities. Mental disorders are disproportionately higher among the poor, marginalized, and socially excluded populations. Caregivers of children with mental

disorders often face these challenges in a compounded way—they not only manage the demands of daily caregiving but also contend with stigmatization, financial strain, and limited access to psychosocial support. Such stressors, rooted in structural inequities, directly influence their mental health outcomes.

Education, for instance, is highlighted as a critical determinant. Caregivers with higher levels of knowledge and literacy are more likely to understand mental illness, navigate health systems effectively, and seek early interventions for their children. On the other hand, lack of education perpetuates misconceptions, reliance on cultural myths, and hesitation to utilize mental health services. Similarly, the presence or absence of supportive social systems—such as extended family networks, community groups, or faith-based organizations—can buffer or exacerbate the emotional toll of caregiving. Strong support systems offer emotional reassurance, practical help, and advocacy, while weak or absent systems leave caregivers isolated and vulnerable.

From a cultural lens, the theoretical framework also recognizes that beliefs, traditions, and societal attitudes play a defining role in shaping health behaviors. In many African settings, including Kenya, cultural interpretations of mental illness—such as beliefs in witchcraft, curses, or divine punishment—continue to influence how families perceive and respond to mental disorders. These cultural determinants intersect with poverty and limited access to formal health care, thereby creating a cycle that entrenches poor mental health outcomes among caregivers.

This study therefore applies the Social Determinants of Health framework to explore how these interrelated social, economic, and cultural factors influence the mental health of caregivers of children with mental challenges. The framework provides a lens for examining not only individual-level stressors but also structural and community-level barriers that perpetuate psychological distress. In doing so, it underscores the importance of addressing inequalities in socioeconomic status, access to education, availability of supportive networks, and quality of healthcare services, if caregiver wellbeing is to be improved.

2.6 Conceptual Framework

The diagram presented below illustrates the interconnection among independent variables, and dependent variable.

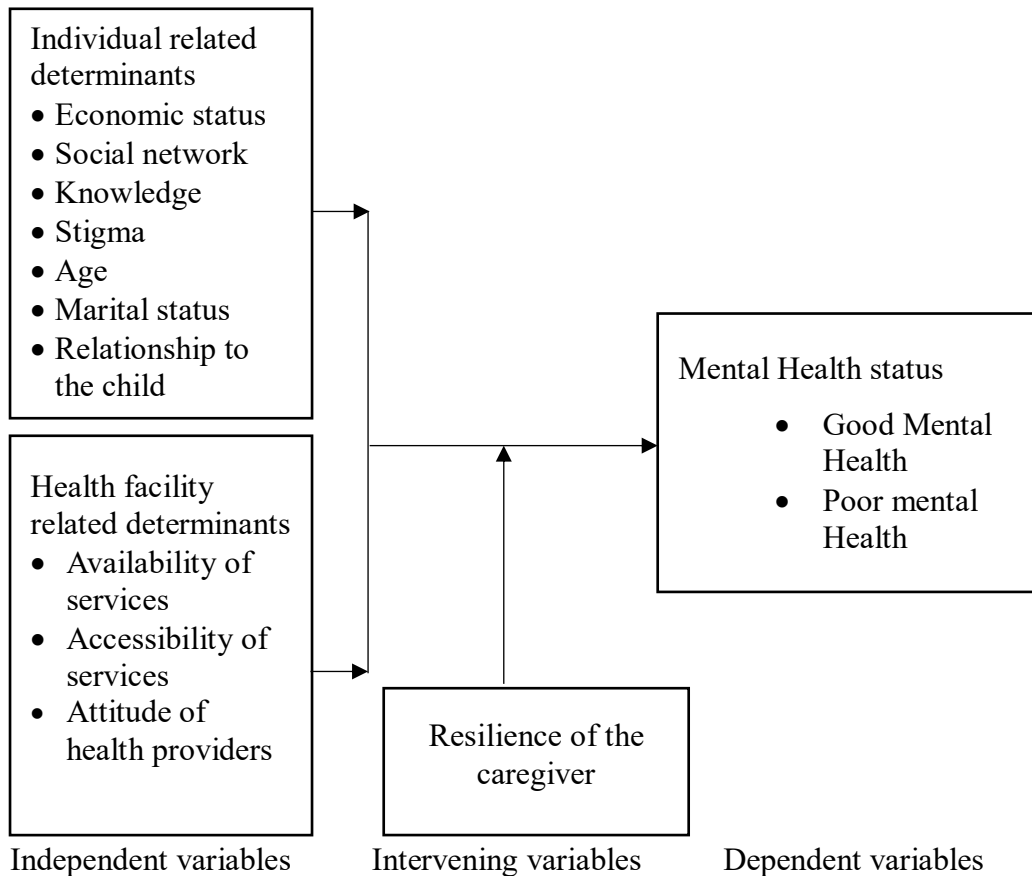


Figure 1: Conceptual framework of the study

Source; Researcher, 2025

The study independent variables were individual related determinants and health facility related determinants. The individual related determinants included economic status, social network, knowledge, stigma, age, marital status and relationship to the child. The health facility related determinants were attitude of staff, service availability and accessibility. Mental health status of caregivers of children with mental disorders was the dependent variables. The results indicated whether the caregiver has good or poor mental health status based on levels of stress, anxiety and depression. The study sort to establish the relationship between facility and individual determinants mental health status outcome.

CHAPTER THREE

METHODOLOGY

3.1 Study Location

The Chuka County Referral Hospital was identified as the site for this study. It is located in Tharaka Nithi County, Chuka Sub-County, Karingani Ward (latitude -3.329733, longitude 37.6420435). It is situated along the Nairobi–Embu–Meru highway, on the outskirts of Chuka town, approximately 500 meters off the tarmac. The Chuka County Referral Hospital serves patients from three constituencies: Maara, Chuka/Igambang'ombe, and Tharaka. It is the main referral center for both Marimanti Level 4 hospital in Tharaka and Magutuni Level 4 Hospitals in Maara. The Chuka County referral hospital has both outpatient and inpatient services with a 200-bed capacity. The hospital is headed by Medical Superintendent and has a total of 475 members of staff, out of which 146 are nurses. The Mental health department offers both outpatient and inpatient services, although there is no ward specifically designated for mental health patients. The outpatient clinic ran from Monday to Friday and has a Psychiatrist and a Mental Health Clinical officer. On average, the clinic reviews 10–15 patients per day and has a total of 156 children being managed for mental disorders. The psychology department offers support through psychological counseling after patients have been stabilized with medications. This site was purposively selected because it was the only public referral hospital in Tharaka Nithi County that provided promotive, curative, and rehabilitative services to children with mental disorders from across the county. In addition, it was the only hospital in the county that had a mental health specialist (psychiatrist).

3.2 Research Design

The study used an analytical cross-sectional survey design with a mixed method approach. The researcher collected data and prepared a report without altering or manipulating the variables under study; therefore, the design fit the provisions of an analytical study. This design enabled the researcher to describe the characteristics of the study variables and respondents. It was preferred because of its ease in establishing associations between variables and making comparisons. In addition, it allowed the administration of several questionnaires that participants could complete anonymously.

3.3 Study Population

Mental health has been associated with very high stigma (WHO, 2020), and therefore caregivers who were already seeking help and in care were considered more willing to provide information for the study compared to those within the community who were not seeking help. According to Chuka County Referral Hospital records, there were 156 active children with mental disorders under the age of 18. Therefore, the researcher engaged 156 primary caregivers of these children, who were attending the outpatient mental health clinic at Chuka County Referral Hospital.

3.3.1 Inclusion Criteria

All primary care givers of children with mental disorders attending Chuka Referral Hospital outpatient clinics.

3.3.2 Exclusion Criteria

All primary care givers who did not give consent, those who had critically sick children

3.4 Sample Size Determination

The census method was used to determine the sample size. Since a census involves all the subjects in the population, 156 caregivers were interviewed. For the key informant interviews, the researcher purposively selected all the professionals working in the mental health department (1 Psychiatrist, 1 Mental Health Clinician, and 1 Psychologist). Therefore, the sample size for the KII was 3 Health care worker.

3.5 Data collection Instrument

3.5.1 Questionnaire

Quantitative data was obtained using a researcher developed and administered structured questionnaire (appendix 1) and the DASS-21 mental health assessment tool (appendix 3). The questionnaire collected data on demographic status, individual-related determinants, and facility-related determinants. The DASS-21 is a standard tool that as been validated and locally used to screen the emotional status of the general population (Lovibond & Lovibond, 1995). It contains 21 items that assessed stress, anxiety, and depression. A Likert scale with 4 points, ranging from 0 to 3, was used to score each item. 0-never,1-sometime, 2-often,3-almost always. Summation of the scores for each item was used to obtain the total score for each of the Depression,

Anxiety, and Stress scales, which were then multiplied by 2. Respondents indicated how much each statement applied to them in the past week. The statements were meant to elicit the major signs and symptoms of depression, anxiety and stress. This took participants an average of 5–10 minutes. The interpretation of the DASS-21 subscale score was based on the following ranges for each emotional state.

Table 1: DASS 21 scores

	Normal Score	Mild score	Moderate Score	Severe Score	Extremely severe Score
Anxiety	0-7	8-9	10-14	15-19	20+
Stress	0-14	15-18	19-25	26-33	34+
Depression	0-9	10-13	14-20	21-27	28+

Normal scores indicated typical emotional responses, meaning the person had good mental health. Mild/ moderate/severe/extremely severe are indicators of poor mental health status. Mild and moderate scores for caregivers suggested some degree of emotional distress that might benefit from either psychological support or stress management techniques. Severe to extremely severe scores indicated high levels of anxiety, depression, and stress. This reflected a significant degree of poor mental health that required immediate clinical intervention.

3.5.2 Key Informant Interview (KII)

Qualitative data was collected using Key Informant Interviews (Appendix 2). Key informant interviews were essential for obtaining specialized knowledge, understanding context and uncovering motivations, attitudes and experiences that interviews can't capture. The researcher developed an interview guide to assist in collecting qualitative data from key informant. The purpose was to offer guidance in an interactive interview using guided questions. For this study, the key informant interview guide was used to facilitate key informants' discussions. This included three professionals working in the mental health clinic: The Psychiatrist, Mental Health Clinical Officer, and the Psychologist.

3.6 Pretesting of Research Instrument

The data collection instruments were pre-tested at Embu Level 5 Hospital in Embu County. The main aim was to test the tool for reliability and validity and apply any

modifications in accordance with the specific objectives of the study. This hospital was selected because it is a public Level 5 hospital that offers curative, rehabilitative, and psychological counselling services that children with mental disorders needed. It is a public hospital and at the same level of services with the hospital where study the was conducted. A total of 16 caregivers were interviewed in the pretest, representing 10% of the sample size (Medina, 2023). After pre-testing, essential adjustments and restructuring were made to address the identified gaps.

3.6.1 Reliability of the Study Instrument

The study instrument was pretested using the test-retest method at Embu Level 5 Hospital to ascertain its validity and reliability. The questionnaire was administered to an identified group of participants, and after one week, the same questionnaire was repeated for the same group. The scores from both administrations were correlated using the Cronbach coefficient of correlation. Computed scale measure reliability of 0.723 was found. This was greater than the minimum reliability coefficient of 0.7 thus it was considered reasonable measure of internal reliability (Medina, 2023).

3.6.2 Validity of the Study Instruments

Data was gathered from caregivers of children with mental disorders who were attending Chuka County Referral Hospital to seek outpatient services. Upon encountering a caregiver of a child with a confirmed clinical diagnosis of a mental disorder, they were requested to participate after the purpose of the study was explained. After they agreed to participate, they were guided through the consent form, signed it, and were interviewed. Upon consenting, they were taken through the questionnaire by the researcher. For the key informant interviews, participants were guided using semi-structured interview guides. The interviews involved three professionals: a psychiatrist, a psychologist, and a mental health clinical officer. The interviews were conducted face to face at Chuka Psychiatric clinic in English, each lasting approximately 30 minutes, while the researcher took audio recordings.

3.7 Data Collection Process

Data was gathered from caregivers of children with mental disorders who were attending Chuka County Referral Hospital to seek outpatient services. Upon encountering a caregiver of a child with a confirmed clinical diagnosis of a mental

disorder, they were requested to participate after the purpose of the study was explained. After they agreed to participate, they were guided through the consent form, signed it, and were interviewed. Upon consenting, they were taken through the questionnaire by the researcher. For the key informant interviews, participants were guided using semi-structured interview guides. The interviews involved three professionals: a psychiatrist, a psychologist, and a mental health clinical officer. The interviews were conducted face to face at Chuka Psychiatric clinic in English, each lasting approximately 30 minutes, while the researcher took audio recordings. The data was collected within a period of one month starting on 25th July 2025.

3.8 Data Analysis and Presentation

Microsoft Access database was used to check for errors and clean the data. SPSS version 29 was used for analysis of the data, where descriptive statistics were used to summarize participants' mental health outcomes. Chi-square and binary logistic regression were applied to explore associations between individual-related determinants, health facility-related determinants, and mental health status. Statistical significance was set at $p < 0.05$. Qualitative data were transcribed verbatim and analyzed thematically using NVivo version 12 software through the process of familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing them up. The information generated was then presented in narrative form and in the form of tables and figures. The data analysis plan is shown in Table 2.

Table 2: Data Analysis Matrix

Research Objectives	Independent variable	Type of data	Analysis procedure
Sociodemographic factors	Age, marital status, sex, caregivers' role.		Percentages Frequencies Mean
To assess the mental health status of primary care givers of children with mental disorders attending Chuka County Referral Hospital, Kenya	Depression Anxiety stress	Quantitative data	Percentages Frequencies Mean
To establish the individual related determinants of mental health status of primary care givers of children with mental health disorders at Chuka County Referral Hospital, Kenya	Individual determinants	Qualitative data Quantitative data	Thematic analysis Thematic analysis Percentages Frequencies mean chi square Binary regression
To identify health facility related determinants of mental health status of primary care givers of children with mental health disorders at Chuka County Referral Hospital, Kenya	Health facility determinants	Qualitative and Quantitative data	Thematic analysis Percentages Frequencies chi square Binary regression

3.9 Ethical Considerations

Before commencing this study, the research proposal was submitted for ethical review and approval by Chuka University Institutional Research and Ethics Committee (APPENDIX VI, NACOSTI/NBC/AC-0812). A permit was sought from National Commission for Science, Technology & Innovation (APPENDIX VIII, NACOSTI/P/25/4177087) and a letter of no objection obtained from the Medical Superintendent, Chuka County Referral Hospital (Appendix 7) The researcher ensured that the proposal was her original work and cited all work from other authors and researchers. The researcher approached the potential participants with adequate information about the study and honestly disclosed the aim and purpose of the study. Caregivers who were willing to participate in the study underwent a formal consent process. Participation was voluntary, and study participants could withdraw from the study if they felt they had changed their mind. Participants did not write their names on the forms, and the data were not shared with any unauthorized entity. The interviews were conducted within private research offices. Confidentiality and privacy of the participants was maintained throughout the study by ensuring anonymity of the respondents was maintained.

CHAPTER FOUR RESULTS

4.1 Study Response Rate

One hundred and fifty-six (156) caregivers were recruited for the study. All of them agreed to participate in the study, representing 100% study response rate.

4.2 Sociodemographic Characteristics of the Participants

The average age of caregivers was 42 years ($SD \pm 13.72$). Most caregivers 42%, ($n = 65$) were aged between 31 and 45 years. The majority were female 87%, ($n = 136$) and married 64%, ($n = 100$). Nearly half 48%, ($n = 75$) had attained secondary education. Most were mothers 77%, ($n = 120$) and had over five years of caregiving experience 71%, ($n=110$) as shown in Table 3.

Table 3: Sociodemographic Characteristics of the caregivers (n=156)

Characteristics	Category	Frequency n (%)
Age	18-30	30(19)
	31-45	65(42)
	46-60	42(27)
	>60	19(12)
Sex	Male	20(13)
	Female	136(87)
Highest Education level	None	5(3)
	Primary school	32(21)
	Secondary school	75(48)
	Tertiary	44(28)
Marital status	Single	33(21)
	Married	100(64)
	Widowed	8(5)
	Separated	15(10)
Relationship to child	Father	18(12)
	Mother	120(77)
	Grandparent	13(8)
	Hired caregiver	5(3)
Duration of caregiving	0-5 years	16(10)
	6-10 years	110(71)
	Above 10 years	30(19)

4.2;1 Association between social demographic factors and Mental Health Status

The results showed that age was significantly associated with mental health status ($\chi^2 = 25.05$, $df = 3$, $p = 0.012$). In addition, the caregiver's relationship to the child was also significantly associated with mental health disorder ($\chi^2 = 13.66$, $df = 3$, $p = 0.003$). Other variables, including gender, education level, marital status, and duration of caregiving, were not statistically significant as indicated in Table 4.

Table 4: Association Between Sociodemographic Characteristics and Mental Health status

Characteristics	Category	Good % (n)	Poor % (n)	χ^2	df	P-value
Age	18-30	5(11)	25(23)	25	3	0.012*
	31-45	12(26)	53(48)			
	46-60	25(54)	17(15)			
	>60	4(9)	15(14)			
Gender	Male	5(11)	15(14)	0.22	1	0.637
	Female	41(89)	95(86)			
Education	None	1(2)	4(4)	0.42	3	0.936
	Primary	10(22)	22(20)			
	Secondary	23(50)	52(47)			
	Tertiary	12(26)	32(29)			
Marital status	Single	12(26)	21(19)	6.18	3	0.103
	Married	26(57)	74(67)			
	Widowed	5(11)	3(3)			
	Separated	3(7)	12(11)			
Relationship to child	Father	4(9)	14(13)	13.7	3	0.003*
	Mother	35(76)	85(77)			
	Grandparent	2(4)	11(10)			
	Hired caregiver	5(11)	0(0)			
Duration of caregiving	0-5 years	5(11)	11(10)	2.135	2	0.344
	6-10 years	29(63)	81(74)			
	Above years	12(26)	18(16)			

*Significant at 95%CI

4.3 Mental Health Status of Caregivers of children with mental disorders

The Depression Anxiety and Stress Scale-21 (DASS-21) was used in the study as a measurement tool. The DASS-21 too has 21 items divided among 3 subscales of depression, anxiety and stress with each subscale having 7 items. The participants are expected to rate the intensity of their experience on a Likert scale ranging from 0 (never applied to me 1-applied to me sometime, 2-applied to more often and 3 applied to me almost always. The total scores were calculated by summing the scores across all the items within each subscale results in a separate score for depression, anxiety and stress.

The total for each scale is then multiplied by 2. A caregiver with Good mental health status scored < 14 in stress, < 9 in depression and < 7 in anxiety. Poor mental health was demonstrated by a score of > 14 in stress, > 9 in depression and > than 7 in anxiety.

Overall, 71% (n=110) caregivers experienced poor mental health status with significant levels of depression, anxiety and stress. Stress was highest overall with a mean of 20.4% (SD $\pm$ 9.0), followed by depression with a score was 17.2% (SD $\pm$ 8.4) and finally anxiety with a mean of 15.8% (SD $\pm$ 7.6) as shown in Table 5.

Table 5: Mental Health Status of Caregivers (Based on DASS-21 assessment tool)

Emotional state	Mean $\pm$ SD	Normal % (n)	Mild % (n)	Moderate % (n)	Severe % (n)	Extremely Severe % (n)
Depression	17.2 $\pm$ 8.4	19.2(30)	12.8(20)	34.6(54)	23.1(36)	10.3 (16)
Anxiety	15.8 $\pm$ 7.6	17.9(28)	14.1(22)	29.5 (46)	24.4(38)	14.1 (22)
Stress	20.4 $\pm$ 9.0	21.8(34)	16.0(25)	30.8(48)	19.2(30)	12.2 (19)
Overall Mental status	-	Good 29(n=46)		Poor 71 (n=110)		

4.4 Individual related determinants of Mental Health Status of Caregivers

4.4.1 Economic Status of Caregivers

More than a quarter of the caregivers relied on farming 33%, (n=52) as the main source of income. More than half of the children were insured 67%, (n= 105) and medical health bills were primarily paid in cash 62%, (n= 96). A quarter of the caregivers 24%, (n= 38) were struggling to meet the most basic child's financial demands as shown in Table 6.

Table 6: Economic status

Characteristics	Category	Frequency n (%)
Main income	Employment	40(26)
	Self-employment	49(31)
	Farming	52(33)
	Partner support	15(10)
Child insured	Yes	105(67)
	No	51(33)
Bill payment	Cash	96(62)
	Insurance/SHA	60(38)
Financial capability	Good	43(28)
	Average	75(48)
	Poor	38(24)

4.4.2 Association between Economic Status and Mental Health Status

A chi-square test results showed significant associations with source of income ($\chi^2 = 14.1$, $df = 3$, $p = 0.003$), and financial ability ($\chi^2 = 38.0$, $df = 2$, $p < 0.001$). However, child insurance status ($p = 0.063$) and bill payment method ($p = 0.541$) were not significantly associated with caregivers' mental health outcomes, as shown in Table 7.

Table 7: Association between Economic Status and Mental Health Status

Characteristic	Category	Good(n=46) % (n)	Poor(n=110)) %(n)	χ^2	D f	P- value
Source of income	Employment	21(46)	19(17)	14.1	3	0.003*
	Self-employment	12(26)	37(34)			
	Farming	10(22)	42(38)			
	Partner support	3(7)	12(11)			
Child insured	Yes	26(57)	79(72)	3.45	1	0.063
	No	20(43)	31(28)			
Bill payment	Cash	30(65)	66(60)	0.37	1	0.541
	Insurance	16(35)	44(40)			
Financial ability	Good	28(61)	15(14)	38	2	<0.001*
	Average	15(33)	60(55)			
	Poor	3(7)	35(32)			

*Significant at 95%CI

4.4.3 Social Support System

The majority of caregivers 69%, (n = 108) lived in households with one to three children. Most caregivers 48%, (n = 75) received caregiving support mainly from family members, and an equal proportion 48%, (n = 75) rarely attended social gatherings. This is demonstrated in Table 8.

Table 8: Social Support System

Characteristics	Category	Frequency n (%)
Number of children in the homestead	1-3	108(69)
	4-6	36(23)
	Above 6	12(8)
Caregiving support	Family	75(48)
	Community	47(30)
	None	34(22)
Social Gathering	Often	38(24)
	Rarely	75(48)
	Never	43(28)
Support group	Yes	46(39)
	No	110(71)

4.4.4 Association between Social Support System and Mental Status of Caregivers

There was a significant associations with frequency of social gathering ($\chi^2 = 31.9$, df = 2, $p < 0.001$) and support group membership ($\chi^2 = 10.8$, df = 1, $p = 0.001$). Household size ($p = 0.781$) and caregiving support ($p = 0.868$) were not significantly associated with caregivers' mental health outcomes. Further results are shown in the Table 9.

Table 9: Association between Socio Support System and Mental Status of Caregivers

Characteristics	Category	Good % (n)	Poor %(n)	χ^2	Df	P-value
Numbers of children	1-3	30(65)	78(71)	0.49	2	0.781
	4-6	12(26)	24(22)			
	Above 6	4(9)	8(7)			
Caregiving support	Family	22(48)	53(48)	0.28	2	0.868
	Community/Other	15(33)	32(29)			
	None	9(20)	25(23)			
Social Gathering	Often	25(54)	13(12)	31.9	2	<0.001*
	Rarely	13(28)	62(56)			
	Never	8(17)	35(32)			
Support group	Yes	20(43)	20(18)	10.8	1	0.001*
	No	26(57)	90(82)			

*Significant at 95%CI

4.4.5 Knowledge on Mental Disorder affecting the children

The majority of caregivers 65%, (n = 102) reported that they knew the type of mental health disorder their child was being managed for. 29%, (n = 45) attributing mental disorders to biological factors. A large proportion 67%, (n = 104) indicated that mental health disorder affects the mind. The majority 78%, (n = 122) agreed that mental health disorders are treatable in hospitals, and 64%, (n = 100) cited medical drugs as the main treatment option available. Most caregivers 45%, (n = 70) demonstrated a moderate level of knowledge regarding mental health disorder, and the majority 88%, (n = 138) had not received any training related to care of mentally ill child. These findings are presented in Table 10.

Table 10: Knowledge on Mental disorder affecting the child

Characteristics	Category	Frequency n(%)
Disorder your child is being managed for	I Know	102(65)
	I don't know	54(35)
Causes of Mental disorder	Biological factors	45(29)
	psychological factors	32(21)
	Environmental factors	15(10)
	Maternal diseases during pregnancy	8(5)
	witch craft	18(12)
	Curses	12(8)
	Sins and demons	5(3)
	I don't know	21(13)
Part human body affected by mental disorder	Mind	104(67)
	Body	19(12)
	Spirit	11(7)
	I don't know	22(14)
Mental disorders are treatable in hospital	Yes	122(78)
	No	34(22)
Treatment options available in the hospital	Medical drugs	100(64)
	Rehabilitation	16(10)
	Psychological Counselling	23(15)
	Support groups	10(6)
	I don't know	7(4)
Knowledge level	Good	50(32)
	Moderate	70(45)
	Poor	36(2)
Training	Yes	18(12)
	No	138(88)

4.4.5 Association between Knowledge and Mental Status of Caregivers

A chi-square test results showed a significant association ($\chi^2 = 28.4$, $df = 2$, $p < 0.001$), with caregivers who had good knowledge, and those who had undergone some training on mental health in children ($\chi^2 = 13.53$, $df = 1$, $p < 0.001$, were more likely to report good mental health, while those with poor knowledge and no training were more likely to report poor mental health outcomes. Results are shown in Table 11.

Table 11: Association between Knowledge and Mental Disorder of Caregivers

Characteristics	Category	Good % (n)	Poor % (n)	χ^2	Df	P-value
Knowledge	Good	27(59)	23(21)	28.4	2	<0.001
	Moderate	15(33)	55(50)			
	Poor	4(8)	32(29)			
Training	Yes	12(26)	6(5)	13.53	1	<0.001
	No	34(68)	104(95)			

*Significant at 95%CI

4.4.6 Stigma

Caregivers expressed mixed perceptions regarding mental health disorders of their children. A considerable proportion reported stigma-related attitudes, with 48% (35) agreeing or strongly agreeing that they feared appearing in public with their child. Similarly, 33% (50) believed families with mental disorders are cursed and 24% (37) agreeing that such children are possessed by demons. About (50)35% felt that children with mental disorders should not attend regular schools, while 22% (33) believed they could only be treated through prayers or witchdoctors. Perceptions of danger were also notable, with 41% (64) agreeing that mental patients are dangerous. Furthermore, 57% (88) of the respondents felt that people dislike being associated with such families and 43% (68) reported personal experiences of social rejection. On a positive note, the majority 72 % (102) agreed that with proper treatment, children with mental disorders can live normal lives, indicating recognition of the benefits of care and treatment despite prevailing stigma as shown in Table 12.

Table 12: Stigma

Statement	Strongly Agree %(n)	Agree %(n)	Neutral %(n)	Disagree e %(n)	Strongly Disagree %(n)	Mean ± SD
Fear appearing in public with child	16(25)	32(50)	13(20)	24 (38)	15 (23)	3.1 ± 1.3
Families with mental disorders are cursed	12 (18)	21(32)	13 (21)	30 (46)	25 (39)	3.4 ± 1.4
Children with mental disorders have demons	8 (12)	16(35)	18 (28)	31 (49)	27 (42)	3.5 ± 1.3
Should not attend regular school	13(20)	22(35)	17(26)	27 (42)	21 (33)	3.2 ± 1.3
Can only be treated through prayers/witchdoctors	10 (15)	12(18)	14 (22)	33 (52)	31 (49)	3.7 ± 1.3
Mental patients are dangerous	18 (28)	21(36)	19 (30)	24 (38)	15(24)	2.9 ± 1.3
People dislike being associated with families	26 (40)	31(48)	13 (21)	17 (27)	13 (20)	2.6 ± 1.3
With good treatment, children can live normal life	42 (65)	30(47)	13 (20)	10 (16)	5 (8)	2.0 ± 1.1
People don't like me and my child	19(30)	24(38)	17 (26)	22 (34)	13 (28)	2.9 ± 1.4

4.4.7 Association between Stigma and mental Health status

A Pearson correlation analysis revealed a moderate positive association between stigma and caregivers' mental health status ($r = 0.46$, $p = 0.001$). This indicates that higher levels of stigma were significantly associated with poorer mental health outcomes among caregivers of children with mental health disorder as shown in Table 13.

Table 13: Association between Stigma and mental health status

Statement	Strongly Agree %(n)	Agree %(n)	Neutral %(n)	Disagree %(n)	Strongly Disagree %(n)	Mean ± SD
Fear appearing in public with child	16(25)	32(50)	13(20)	24 (38)	15 (23)	3.1 ± 1.3
Families with mental disorders are cursed	12 (18)	21(32)	13 (21)	30 (46)	25 (39)	3.4 ± 1.4
Children with mental disorders have demons	8 (12)	16(35)	18 (28)	31 (49)	27 (42)	3.5 ± 1.3
Should not attend regular school	13(20)	22(35)	17(26)	27 (42)	21 (33)	3.2 ± 1.3
Can only be treated through prayers/witchdoctors	10 (15)	12(18)	14 (22)	33 (52)	31 (49)	3.7 ± 1.3
Mental patients are dangerous	18 (28)	21(36)	19 (30)	24 (38)	15(24)	2.9 ± 1.3
People dislike being associated with families	26 (40)	31(48)	13 (21)	17 (27)	13 (20)	2.6 ± 1.3
With good treatment, children can live normal life	42 (65)	30(47)	13 (20)	10 (16)	5 (8)	2.0 ± 1.1
People don't like me and my child	19(30)	24(38)	17 (26)	22 (34)	13 (28)	2.9 ± 1.4
Overall association $r = 0.46$ $p = 0.001$						

4.4.8 Binary Logistic Regression Analysis of Individual related predictors of mental health status

Regression analysis identified several individual-related determinants that were significantly associated with caregivers' mental health status. Caregivers' age was a significant predictor (AOR = 1.333, 95% CI: 0.309–5.755, $p = 0.001$). Those whose main source of income was unstable were less likely to have good mental health (AOR = 0.226, 95% CI: 0.055–0.926, $p = 0.004$). Financial ability also showed a strong association (AOR = 0.046, 95% CI: 0.012–0.175, $p < 0.001$), indicating that caregivers with limited financial means were more likely to experience poor mental health.

Participation in social gatherings (AOR = 0.119, 95% CI: 0.043–0.329, $p < 0.001$) and involvement in support groups (AOR = 0.322, 95% CI: 0.129–0.802, $p = 0.001$) were protective factors against poor mental health. Additionally, caregivers with good knowledge (AOR = 0.078, 95% CI: 0.024–0.257, $p < 0.001$) and those who had received training (AOR = 0.163, 95% CI: 0.017–0.469, $p < 0.001$) were less likely to have poor mental health. These findings are presented in Table 14.

Table 14: Binary Logistic Regression Analysis of Individual related predictors of mental health status

Variable	AOR	95% CI	P-value
Age	1.333	0.309-5.755	0.001*
Main income	0.226	0.055-0.926	0.004*
Financial ability	0.046	0.012-0.175	<0.001*
Social Gathering	0.119	0.043-0.329	<0.001*
Support group	0.322	0.129-0.802	0.001*
Knowledge	0.078	0.024-0.257	<0.001*
Training	0.163	0.017-0.469	<0.001*

*Significant at 95% CI

4.5 Health Facility Determinants of Mental Health Status of Caregivers

4.5.1 Accessibility of Services

The majority of caregivers 51%, (n = 80) reported that the health facility was not very far from their homes. Most respondents 84%, (n = 131) sought care from Level 5 facilities. A large proportion 42%, (n = 65) indicated that the services were very expensive. These findings are presented in Table 15.

Table 15: Accessibility of Services

Characteristics	Category	Frequency n(%)
Distance to facility	Very far	31(30)
	Not very far	80(51)
	Near	45(29)
Facility attended for care	Dispensary	0(0)
	Health care	0(0)
	Level 4	25(16)
	Level 5	131(84)
Cost of the services	Very expensive	65(42)
	Moderate fair	43(28)
	Affordable	28(18)
	Services offered freely	20(13)

4.5.2 Association between Accessibility of Services and Mental health status

A significant association was found between the cost of care and caregivers' mental health status ($\chi^2 = 27$, df = 3, $p < 0.001$) as shown in Table 16.

Table 16: Association between Accessibility of Services and Mental Disorder

Characteristics	Category	Good(n=46) %(n)	Poor(n=110) %(n)	χ^2	df	P-value
Distance to facility	Very far	6(13)	25(23)	2.24	2	0.311
	Not very far	24(52)	56(51)			
Facility level	Near	16(35)	29(26)	1.29	1	0.256
	Dispensary	0(0)	0(0)			
	Health care	0(0)	0(0)			
	Level 4	5(11)	20(18)			
Cost of care	Level 5	41(89)	90(82)	27	3	<0.001
	Very expensive	11(24)	54(49)			
	Moderate fair	8(17)	35(32)			
	Affordable	13(28)	15(14)			
	Services offered freely	14(30)	6(5)			

*Significant at 95% CI

4.5.3 Availability of Services

The majority of caregivers 53%, (n = 83) reported that medication was available most of the time. Most respondents 69%, (n = 108) indicated that staff were available most of the time. These findings are presented in Table 17.

Table 17: Availability of Services

Characteristics	Category	Frequency n(%)
Medication Availability	Available always	44(28)
	Most of times	83(53)
	Rarely available	20(13)
	Never available	9(6)
Staff availability	Always	40(26)
	Most of times	108(69)
	Rarely	8(5)

4.5.4 Association between Availability of Services and Mental health status

A significant association was found between medication availability and caregivers' mental health status ($\chi^2 = 22.1$, df = 3, p = 0.001). Similarly, a significant association was observed between staff availability and caregivers' mental health status ($\chi^2 = 17.1$, df = 2, p < 0.001). These findings are presented in Table 18.

Table 18: Association between Availability of Services and Mental health status

Characteristics	Category	Good(n=46) % (n)	Poor(n=10) % (n)	χ^2	df	P-value
Medication Availability	Available always	25(54)	19(17)	22.1	3	0.001*
	Most of times	15(33)	68(62)			
	Rarely available	4(9)	16(15)			
	Never available	2(4)	7(6)			
Staff availability	Always	22(48)	18(16)	17.1	2	<0.001
	Most of times	23(50)	85(78)			
	Rarely	1(2)	7(6)			

*Significant at 95%CI

4.5.5 Attitude of Health care workers

The majority of caregivers 60%, (n = 93) reported that medical staff were welcoming and respectful. Most respondents 38%, (n = 60) indicated that health workers felt offended by the child's inappropriate behaviors. These findings are presented in Table 19.

Table 19: Attitude of Health care workers

Characteristics	Category	Frequency	n (%)
Staff attitude	Welcoming and respectful		93(60)
	Negative attitude		63(40)
Reaction to child inappropriate behaviors	Calm and empathetic		45(29)
	Feels offended		60(38)
	Shouts at caregiver		51(33)

4.5.6 Association between Attitude of Health Care Workers and Mental Health Status

The results showed significant associations between staff attitude ($\chi^2 = 7.36$, df = 2, p = 0.025) and reaction to child inappropriate behavior ($\chi^2 = 6.69$, df = 2, p = 0.031) as shown in Table 20.

Table 20: Association between Attitude of Health Providers and Mental Health status

Characteristics	Category	Good(n=46) %(n)	Poor(n=110) %(n)	χ^2	df	P-value
Staff attitude	Welcoming/ respectful	35(76)	58(53)	7.36	2	0.025*
	Negative attitude	11(24)	52(48)			
Reaction to child inappropriate behavior	Calm and empathetic	20(43)	25(23)	6.69	2	0.031*
	Feels offended	15(33)	45(41)			
	Shouts at caregiver	11(24)	40(36)			

*Significant at 95% CI

4.5.7 Binary Logistic Regression Analysis of Health Facility Determinants of Mental Health Status

Regression analysis revealed several significant predictors of caregivers' mental health status. Caregivers who reported high cost of care were 11.5 times more likely (AOR = 11.455, 95% CI: 3.607–36.372, $p < 0.001$) to experience poor mental health. Staff attitude (AOR = 0.36, 95% CI: 0.126–1.034, $p = 0.029$) and reaction to a child's inappropriate behavior (AOR = 0.344, 95% CI: 0.141–0.837, $p = 0.034$) were also significantly associated with caregivers' mental health status. Additionally, medication availability (AOR = 0.217, 95% CI: 0.04–1.166, $p < 0.001$) and staff availability (AOR = 0.117, 95% CI: 0.013–1.040, $p < 0.001$) showed significant associations, indicating that better service access was linked to improved caregiver mental health. These findings are presented in Table 21.

Table 21: Binary Logistic Regression Analysis Of Health-Related Predictors Of Mental Health Status

Variable	AOR	95% CI	P-value
Medication Availability	0.217	0.04-1.166	<0.001*
Cost of care	11.455	3.607-36.372	<0.001*
Staff availability	0.117	0.013-1.040	<0.001*
Staff attitude	0.36	0.126-1.034	0.029*
Reaction to child inappropriate behavior	0.344	0.141-0.837	0.034*

*Significant at 95%CI

4.6 Qualitative Findings

Three key informant interviews were conducted to gain in-depth insight on the factors influenced mental disorder.

4.6.1 Demographic Characteristics of Key Informants

Three key informants participated in the study: A psychiatrist with 6 years of experience who is responsible for diagnosis and treatment, a mental health clinician with 12 years of experience managing outpatient services, and a psychologist with 5 years of experience providing counselling and therapy as shown in Table 22.

Table 22: Demographic Characteristics of Key Informants

Key Informant	Profession	sex	Years of Experience	Role in Mental Health Clinic
KII 1	Psychiatrist	M	6	Diagnosis & treatment
KII 2	Clinician	M	12	Diagnosis & treatment
KII 3	Psychologist	F	5	Counselling & therapy

4.6.2 Emerging Themes in KIIs

The qualitative analysis revealed the following themes

4.6.2.1 Mental Health Status of Caregivers of Children with Mental Disorders

i. Psychological burden of caregivers

Most of the children with mental health disorders needs a lot of care from their caregivers to meet their dairy needs. The psychologist said “imagine you have a child with intellectual disability, the child cannot do anything for herself yet you are employed and you are expected to go to work and may be, your salary cannot employ a house help” These mothers opt to leave employment in order to give care and this will impact on the caregiver’s emotional state and finances too. “Caregivers are overwhelmed, they have to work to provide for these children at the same time offer care” says the clinician. The psychiatrist said “imagine the frustration the caregivers feel after knowing that the disorder is life long and very little can be done” this can trigger anxiety and depression.

4.6.2.2 Individual related determinants of caregiver's mental health status

Stigma

persistent misconceptions such as beliefs in witchcraft, curses and religious beliefs (demons' possession) as the main cause of mental illness results into widespread discrimination, stigma and this discourages medical treatment. Most client opt for alternative methods of treatment like prayers, help from witch doctors or traditions to appease the gods. The psychologist said, "I am a Christian but religion is number one contributor of stigma on mental illness". The psychiatrist felt that many caregivers believe that their children are bewitched I quote "the caregivers themselves don't believe that their children are sick, they have someone in the family they label a witch". Some of these children are never put to public because of the caregiver's self-stigma.

Knowledge gap

It was reported that Mental health is an area that has serious knowledge gap both for medical personnel and general public. Most caregivers are yet to embrace psychological counselling as treatment. The clinicians said 'there are so many misconceptions about mental illnesses that makes it difficult for caregivers to create room for new knowledge "psychosocial groups would be the best learning avenue for caregivers since the health care workers may not get time for one-on-one training says the psychologist. Lack of adequate knowledge and training makes caregivers very vulnerable to mental problems

Social network

The psychologist emphasized the role of psychosocial support groups for the caregiver. She said "support groups are powerful, they help reduce isolation, help caregivers share coping strategies thus fostering resilience" the frustration of thinking that its only you who has a mentally ill child is overwhelming. When caregivers come together, they get a chance to ventilate their fears and get encouragement from one another in the group. "support groups are a learning and healing space, caregivers share experiences and realize they are not alone" the psychiatrist reported.

4.6.2.2 Health facility related determinants

i. Accessibility of services

Sub theme; Limited services

Most of the mental health services are mainly offered in level 5 hospital and to a very small scale in level 4. They reported that lack of services at level 2 and 3 makes mental health services inaccessible to caregivers especially in rural areas. There is no standard mental health department that is offering both inpatient and outpatient services to mentally ill children and their caregivers in the county. The clinicians said ‘admitting mental health patient in a general ward is traumatizing and they might face a lot of stigma and social isolation (often labeled mad people)’

ii. Availability Mental Health Personnel

Sub theme; Shortage of staff

Tharaka Nithi county has very few mental health trained officers. only one psychiatrist, 2 clinical officers and 1 nurse. These are not able to meet the huge demand for mental health services especially for children with mental disorders and their caregivers. Psychiatrists said “if I go on leave, no mental health consultancy for that period” Psychological counselling is only done at Chuka referral hospital, since this is the only facility with a psychologist in the county. “The numbers are overwhelming for me, i cannot offer quality counselling services to all caregivers,” said the psychologist

Sub theme; Affordability

It was reported that most caregivers have registered their children with social health authority but they are not able to pay annual installment thus they end up paying from pocket. “Processing a waiver for those who can’t pay is cumbersome and some leave without services,” said the clinician. Drugs stock out is common therefore even for the few who are using the insurance will have to buy outside the hospital, and most of the psychotic drugs are significantly expensive. “SHA is expensive for most of clients and waiver is difficult since the introduction of SHA services,” said the clinician. He argued that many default treatment because they cannot sustain buying the drugs.

iii. Attitudes of Health Care Workers

Health care workers who are not trained on mental health have negative attitude towards mentally ill patient and constantly labels them as mad people, difficult and dangerous. This makes it difficult for mental ill children and their caregivers to seek help from them. According to the psychiatrist, “majority of medical staffs have a strong negative attitude towards mental patients and this affects even the caregivers” the psychiatrist reported that one of the major barriers of mental health is the staff attitude.

In summary psychological burden of caregiving is high thus it's a risk factor to poor mental health status. Key individual determinants were stigma, inadequate knowledge and lack of support groups. Under health facility determinants staff attitude, poor accessibility, high cost of care and shortage of trained mental health personnel were the main. They recommended, caregivers training, peer support groups, adequate staffing in all facilities including level 2 and 3, finally stigma reduction interventions.

CHAPTER FIVE

DISCUSSION

5.1 Mental Health Status of Caregivers

Caregiving exerts a profound influence on the emotional and psychological wellbeing of individuals, particularly when caring for children with mental health disorders. The current study established that 71% (n = 110) of caregivers experienced poor mental health. Stress was the most prevalent (mean 20.4%), followed by depression (17.2%) and anxiety (15.8%). Caregivers frequently reported feeling overwhelmed by the complex demands of care, struggling to relax because of fear possible poor outcome. Those who had depression symptoms reported inability to enjoy pleasurable activities they previously enjoyed, they felt worthless and a strong feeling that life is meaningless. overly reactive to environmental stressors. Those who reported stress were easily agitated, very sensitive and constantly over reacting to situations These findings underscore the considerable psychological burden associated with caregiving for children with compromised mental health status.

Qualitative data reinforced these results. Key informants highlighted that caregivers often experience emotional exhaustion, stigma, and social isolation. The psychologist explained that many caregivers “appear emotionally drained because of the unpredictability of the child’s behavior,” while the psychiatrist emphasized that “the constant worry about relapses, poor sleep, and social rejection worsens their mental state.” This triangulation supports the quantitative evidence that caregivers are at a high risk of psychological distress.

These results are consistent with global literature showing that caregiving for children with poor mental health status significantly increases vulnerability to psychological distress. Cham et al. (2022) reported a pooled caregiving burden prevalence of 31.6%, Xuan et al. (2023) found that 37% of caregivers had anxiety, while Kouther et al. (2023) documented a 25% prevalence of depression among caregivers. African evidence similarly mirrors these findings. Minichil et al. (2019) in Ethiopia reported that 66.3% of caregivers had clinically significant depressive symptoms, while Zuurmond et al. (2019) in Ghana observed high levels of stress, isolation, and poor psychological wellbeing among caregivers of children with disabilities. Locally, Mbithi (2022) and

Musa (2022) found comparable results at Mathari and Kenyatta National Hospitals respectively.

However, some contrary studies exist. For instance, Kizito et al. (2021) in Uganda reported lower distress levels among caregivers, attributing this to structured psychosocial support and access to community-based rehabilitation programs. Similarly, a Malaysian study by Lim et al. (2020) found moderate caregiver stress, suggesting that availability of specialized services and community awareness may buffer against extreme distress. These contrasts highlight the role of social support and resource availability as contextual determinants of caregiver mental health.

5.2 Individual-Related Determinants of Mental Health

5.2.1 Socio-Demographic Characteristics

The study found significant associations between caregiver mental health and demographic factors such as age and relationship to the child ($p < 0.05$). Younger caregivers particularly teenage mothers and elderly caregivers, often grandparents, exhibited poorer mental health outcomes. Qualitative findings supported this: the psychiatrist noted that “young caregivers lack parenting experience and are often abandoned by partners,” while the clinician added that “older caregivers struggle physically and financially, which compounds their stress.” These insights explain the observed statistical association.

The findings align with Maridal et al. (2021), who reported that caregiving responsibilities disproportionately affect mothers and grandmothers, with women and elderly relatives exhibiting higher psychological vulnerability. Similarly, Sallim et al. (2018) in Singapore observed higher depressive symptoms among female caregivers due to emotional labor and role expectations. However, the current study also found that male caregivers showed poorer mental health than females a contrast possibly explained by cultural norms. In African settings, men are rarely socialized to provide direct caregiving, making the role emotionally unfamiliar and stressful.

Contrasting findings were noted by Omondi et al. (2020) in Nairobi, who found no significant gender difference in caregiver stress, suggesting that urban exposure and changing gender roles may influence coping mechanisms. Likewise, Adelman et al. (2020) in the United States reported that grandparent caregivers did not necessarily exhibit higher distress, possibly due to better access to social welfare programs—unlike in the Kenyan context.

5.2.2 Economic Status

Employment status and main source of income were both significantly associated with caregiver mental health ($p < 0.001$). Unemployed caregivers and those relying on unstable income sources, such as small-scale farming, were more likely to experience poor psychological wellbeing. Care of children with mental disorders requires a sustainable source of income because the problem is lifelong. Therefore, if the caregiver has unstable income source, the financial needs will be overwhelming. Qualitative data provided deeper insight: one key informant noted that many mothers quit their jobs to stay home with the child, leading to financial strain and frustration. This is attributed to need for more time with the child and the complexity of care that may not be effective if delegated. This triangulation illustrates how economic hardship intensifies psychological distress.

Martinez et al. (2022) emphasized that navigating complex healthcare systems is itself financially demanding, with caregivers struggling to meet the costs of rehabilitative services, psychological therapies, and specialized educational programs. He reported that financial challenges left caregivers feeling emotionally overwhelmed and socially isolated. Likewise, Adeyemi (2020) described financial challenges as the most pressing concern for families caring for children with mental disorders, as the costs of medical care, transport, therapies, and specialized education accumulate over a long period of time. Patel and Williams (2024) further demonstrated that these financial difficulties not only limit caregivers' ability to secure required health services but also exacerbate stress, anxiety, depression, and burnout. Johnson et al. (2023) confirmed that recurring medical, psychological, and rehabilitative expenses acted as chronic stressors, leaving caregivers vulnerable to emotional exhaustion and feelings of despair.

The impact of financial status is not limited to direct medical costs; it also extends to lost income as a result of leaving their jobs to take care of these children. Others have reduced economic productivity because they will work for lesser hours. Ali et al., (2021) reported that caregivers often mothers are forced to reduce work hours or leave employment altogether to provide round-the-clock care. This dual burden of income loss and rising expenses intensifies poverty cycles and contributes to a heightened risk of depression. Furthermore, economic hardship may reduce caregivers' ability to engage in self-care, pursue leisure activities, or seek social support, thereby worsening their psychological wellbeing (Abdullah et al., 2020). The findings also concur with Chen et al. (2019), Martinez et al. (2022), and Smith et al. (2020), who identified financial strain as a major predictor of depression among caregivers. Similarly, Minichil et al. (2019) and Zuurmond et al. (2019) in Ethiopia and Ghana, respectively, found that financial difficulties amplified stress, particularly where therapy and medications were self-financed. In South Africa, Mkabile et al. (2021) showed that economic hardship compounded stigma and social exclusion.

However, contrary findings have been reported elsewhere. For example, Ali et al. (2020) in Qatar found no significant relationship between income level and caregiver distress, attributing this to comprehensive healthcare subsidies and social welfare programs. This contrast underscores the contextual influence of social safety nets, which are often lacking in low-resource settings like Kenya.

5.2.3 Social Support Networks

Social participation was significantly associated with mental health ($\chi^2 = 7.01$, $p = 0.030$). social support plays a major role in stress management by acting as a buffer against stressors and providing resources to improve coping. It can help caregivers feel more resilient gain a new perspective on mental health of their children and feel a sense of belonging and reassurance. This was demonstrated by results that shown that caregivers who were active in community activities or support groups reported better psychological outcomes. Those who were socially isolated, often due to shame or caregiving fatigue, were more prone to anxiety and depression. The psychologist explained, "support groups are a learning and healing space, caregivers share

experiences and realize they are not alone.” This qualitative evidence reinforces the quantitative findings.

This study agrees with Patel & Williams (2023) who reported that poor social networks and social isolation often lead to excessive worry, low self-esteem, and hopelessness, which predispose caregivers to depression and anxiety. Likewise Minichil et al. (2019), in a study involving 416 caregivers, reported that weak support systems were significantly associated with higher depression rates, particularly among those who had provided care prolonged period of time. The study emphasized that giving care for prolonged period with limited support will increase emotional distress and risk of mental problems.

Evidence from Africa further highlights the role of social support in buffering psychological distress. Zuurmond et al. (2019) in Ghana found that support groups provided caregivers of children with disabilities an avenue to reduce feelings of social exclusion that often arise within their immediate communities. Participation in such groups offered opportunities to share experiences, ventilate fears, and access accurate information about the child’s condition. These interactions helped caregivers reduce self-blame, restore self-acceptance, and build confidence in their caregiving roles. Similarly, Minie et al. (2024) in Ethiopia reported that caregivers of patients with deteriorating mental illnesses who lacked social support were twice as likely to develop depression compared to those with strong support systems. The study results shown that those who were already members of a support group had good mental status, meaning they were more resilient as compared to those who never attended. These results are consistent with Patel and Williams (2023), who reported that strong social support networks reduce stress and enhanced emotional resilience among caregivers. Similarly, Zuurmond et al. (2019) emphasized that peer support groups for caregivers improved coping and reduced isolation.

Contrastingly, a study by Torres et al. (2021) in Spain found no significant impact of social participation on caregiver wellbeing, suggesting that the quality rather than frequency of support may be more crucial. This difference highlights the importance of culturally sensitive and emotionally meaningful support systems.

5.2.4 Stigma

Stigma emerged as a pervasive determinant of caregiver mental health. WHO (2020) identified stigma as a central barrier to mental health care uptake in Africa as a result of strong traditional beliefs in witchcraft and curses. Both quantitative and qualitative findings revealed strong beliefs linking poor mental health status to witchcraft, curses, and religious punishment. The psychiatrist remarked, “many caregivers label relatives as witches or believe the child’s condition is a curse, which increases isolation.” These cultural misconceptions amplify self-blame, social withdrawal, and distress. The study reviewed that a significant number of caregivers believed that children with mental disorders have demons or are cursed and the only treatment option is witchdoctors and prayers. Majority feared appearing in public or even their children going to public school because they fear to be judged, others felt people will not like to be associated with them and others feared that the child will shame them with inappropriate behaviors. All these fears and worry and misconception increases the risk of poor mental health. Minichil et al. (2019), in a study conducted in Ethiopia, found that misconceptions about the causes of mental illness were widespread, with many attributing conditions to witchcraft, the “evil eye,” demonic possession, or punishment from God. These beliefs imposed psychological trauma on caregivers, who often faced blame from both family and community members. This made them felt stigmatized, with stigma strongly correlated with symptoms of depression.

Mkabile et al. (2021) observed that in Ethiopia, Uganda, Kenya, and Zambia, intellectual disability in children is frequently attributed to curses, failure to observe cultural traditions, or spirit possession. As a result, caregivers are shamed in public, isolated from community functions, and sometimes given derogatory labels such as “family of mad people.” In a study of 408 caregivers, 38.5% reported direct experiences of stigma, and many were already experiencing depressive symptoms linked to social exclusion and neglect. This highlights how stigma not only erodes social standing but also contributes directly to poor caregiver mental health. In Kenya, stigma is similarly entrenched. Wachira et al. (2019) found that caregivers of children with NDDs experienced a combination of social stigma, which compounded their already heavy caregiving burden, leaving them more vulnerable to depression and emotional exhaustion.

Similarly, Wachira et al. (2019) and Gona et al. (2011) observed that stigma and community rejection increase psychological distress among Kenyan caregivers. Nevertheless, not all studies concur. For example, Chimezie et al. (2021) in Nigeria found that stigma had minimal association with caregiver distress after adjusting for social support, implying that strong community engagement can mitigate stigma's effects. This suggests that anti-stigma programs integrated with social support initiatives could significantly improve caregiver wellbeing.

5.2.5 Knowledge of the Child's Condition

Knowledge about the child's mental health status was significantly associated with caregiver mental health ($p < 0.05$). Caregivers who understood the nature, causes, and management of the condition had better psychological outcomes. Those lacking such knowledge expressed confusion and hopelessness, with one key informant noting that "when caregivers understand what the child is suffering from, they are calmer and cooperate better with treatment." Those caregivers who had gone through some training on how to help their child demonstrated better mental health status compared to those with no training. This underscores the role of knowledge in developing resilience among caregivers. Knowledge gives the caregiver a clear picture of the disorder and this makes it easy to make informed decisions thus protecting them from frustrations. This aligns with Nirmala et al. (2023), who found that psychoeducation interventions significantly improved caregiver wellbeing. Gona et al. (2011) similarly observed that inadequate caregiver knowledge led to frustration and high stress levels. Comparable findings were reported by Ho et al. (2019) in Hong Kong and Giraldo et al. (2018) in Colombia, where limited knowledge heightened anxiety and helplessness.

Contrary findings were observed by Duku et al. (2021) in Ghana, who found no significant effect of caregiver education on mental health, suggesting that socioeconomic and cultural factors may mediate the relationship between knowledge and psychological wellbeing. Nevertheless, the current study underscores knowledge as a protective determinant in the Kenyan context.

5.3 Health Facility-Related Determinants of Mental Health

5.3.1 Availability and Accessibility of Services

Availability, affordability, and accessibility of mental health services were all significantly associated with caregiver mental health ($p < 0.05$). Frequent drug stock-outs, high costs, and shortage of specialists caused significant distress. The psychiatrist highlighted that “with only one psychiatrist and one psychologist in the entire county, caregivers feel abandoned and anxious when services are unavailable.” This triangulation reinforces the quantitative findings. The World Health Organization (2020) identified the lack of accessible and quality mental health services as one of the greatest barriers to achieving “mental health for all,” This was attributed to several structural challenges, including a chronic shortage of trained mental health professionals, limited health infrastructure, and persistently low budget allocations for mental health programs compared to other areas of healthcare. This was echoed by the psychiatrist “if I go on leave, no mental health consultancy for that period” This agrees to Kola et al., (2021) who identified limited mental health specialists and poor drug supply as systemic challenges, while Kintu et al. (2019) in Uganda and Mugisha et al. (2021) in Ethiopia reported that service interruptions increased caregiver frustration. In the Kenyan context, Kimani and Mwangi (2021) reported that caregivers of children with developmental challenges experienced mental strain as a result of unavailable specialized services in most public facilities. The lack of trained professionals, limited access to rehabilitation centers, and long waiting times for consultations contributed to caregivers’ feelings of frustration and isolation. Mutua et al. (2022) further observed that caregivers of children with autism experienced anxiety, which they linked to inadequate specialized services.

High cost of mental health services was major a determinant of mental health status with those who could not afford being 11 times more at risk of developing poor mental health status compared with other. In ability to pay for services increases the risk of stress among caregivers. The study results agree with Ali and Agyapong (2015) who identified the high cost of psychiatric medications as one of the main reasons for poor utilization of mental health services. Many patients and their caregivers could not afford continuous treatment, leading to treatment discontinuation or reliance on informal care. However, contrasting evidence from high-resource contexts, such as Li et al. (2020) in

China, indicates that consistent service access significantly reduces caregiver stress. This discrepancy underscores the structural inequities between low- and high-income settings and highlights the urgent need for Kenya to strengthen community mental health infrastructure.

5.3.2 Attitudes of Healthcare Workers

Staff attitude was statistically associated with caregiver mental health ($\chi^2 = 7.36$, $p = 0.025$). Caregivers who interacted with empathetic, respectful healthcare providers reported better psychological wellbeing. Conversely, rude or dismissive interactions intensified distress. Qualitative data revealed that “labels such as ‘mad people’ from health workers are deeply hurtful, as one psychologist explained.

These results align with Ghuloum et al. (2021) and Yeshanew et al. (2020), who reported that negative staff attitudes hinder service utilization and increase caregiver distress. Osafo et al. (2011) and Nalwoga et al. (2021) similarly found that empathetic communication improved caregiver trust and coping. WHO (2022) has identified staff stigma and poor attitudes as major barriers to mental health integration in primary care. Conversely, a study by Okello et al. (2021) in Uganda found no significant relationship between provider attitude and caregiver wellbeing, suggesting that external support systems may moderate this relationship. Nonetheless, the present findings affirm that compassionate, well-trained healthcare workers are essential for improving caregiver mental health outcomes.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary of Findings

This study assessed the determinants of mental health among caregivers of children with poor mental health status. A total of 156 caregivers participated, achieving a 100% response rate. The findings revealed that the majority of caregivers experienced psychological distress, mainly stress, depression, and anxiety. The significant findings were summarized according to the study objectives.

Sociodemographic Characteristics of Caregivers

The average age of caregivers was 42 years ($SD \pm 13.72$). Age and relationship to the child were significantly associated with caregiver mental health ($p < 0.05$). Younger caregivers (particularly teenage mothers) and elderly caregivers reported higher stress and depression levels compared to middle-aged caregivers. Employment status and main source of income were also significant ($p < 0.001$); unemployed caregivers and those relying on unstable income sources experienced more psychological distress.

Objective One: Mental Health Status of Caregivers

The study found that 71% of caregivers had poor mental health status, stress was the most common (20.4%), followed by depression (17.2%) and anxiety (15.8%). Qualitative findings supported this, revealing that caregivers experienced emotional fatigue, poor sleep quality, and feelings of isolation due to caregiving burdens.

Objective Two: Individual-Related Determinants

Several individual factors were significantly associated with caregiver mental health:

Age and Relationship to the Child: Younger and older caregivers were more likely to have poor mental health ($p < 0.05$).

Employment and Income Source: Unemployment and unstable income were strong predictors of poor mental health ($p < 0.001$).

Social Participation: Active engagement in social or support group activities was significantly associated with better mental health ($\chi^2 = 7.01$, $p = 0.030$).

Stigma: Caregivers facing social stigma reported higher psychological distress ($p < 0.05$).

Knowledge of the Child's Condition: Caregivers who understood their child's condition had better psychological wellbeing ($p < 0.05$).

Objective Three: Health Facility–Related Determinants

Availability, Accessibility, and Affordability of Services: These were significantly associated with caregiver mental health ($p < 0.05$). Drug stock-outs, and high costs contributed to stress and anxiety among caregivers.

Healthcare Worker Attitude: The attitude of healthcare providers significantly influenced caregiver wellbeing ($\chi^2 = 7.36$, $df = 2$, $p = 0.025$) Caregivers who interacted with empathetic and supportive staff reported better mental health outcomes.

6.2 Conclusion

Based on the study findings, the following conclusions were drawn:

The majority of caregivers of children with poor mental health status experience significant emotional distress, predominantly stress, depression, and anxiety. Younger, older, and unemployed caregivers, as well as those with limited financial stability, are more vulnerable to mental health challenges. Adequate understanding of the child's condition and involvement in social support networks contribute positively to caregivers' mental wellbeing. Availability and affordability of mental health services, together with positive healthcare worker attitudes, are crucial in reducing caregiver psychological distress. Stigmatization remains a major barrier to positive mental health among caregivers, influencing both individual coping and healthcare-seeking behavior.

6.3 Recommendations of the Study Findings

- i. Integration of mental health services in the existing primary health care system to make these services available and affordable.
- ii. Establish support groups both at facility and community level to promote resilience and coping for caregivers of children with mental disorders.
- iii. Further study on evaluating the effectiveness of psychological counselling services in improving care givers mental health status.

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APPENDICES

Appendix I: Consent

Title: Determinants of mental health status of primary care givers of Children with mental health disorders attending Chuka County Referral Hospital, Kenya

Researcher: Lucy Kiraithe

Affiliation: Chuka University and Chuka County Referral Hospital

Introduction

You are hereby requested to take part in a research study conducted by Lucy kiraithe. This document aims to provide you with all necessary details about the study so that you can make decision about your participation. Feel free to ask any questions about the study procedures, potential benefits, and risks. Once you have a clear understanding, you can decide whether to participate. If you agree to the interview you will need to sign this form to confirm your consent. You are free to participate and you have the following rights:

1. Participation is at free will
2. You can withdraw from the study at any time.
3. Free access to the services you are entitled to whether you participate or not

Purpose of the Study

Objectives of the study.

- 1) To determine the mental health status of care givers of children with mental disorders Chuka Referral County Hospital.
- 2) To establish the individual related determinants of mental health status of caregivers of children with mental health disorders at Chuka County Referral Hospital, Kenya.
- 3) To identify health facility related determinants of mental health status of caregivers of children with mental health disorders at Chuka County Referral Hospital, Kenya

Inclusion Criteria: care providers of children with Mental disorders and have consented.

Exclusion Criteria: Persons giving care will be excluded if the child with mental disorder is clinically too sick to allow the caregiver to take part in the study.

Time Commitment: You will be asked to volunteer thirty minutes of your time to answer a few questions about your experiences when giving care for the child with mental disorder

Interview: A trained interviewer will ask you questions in a private setting. You are free to skip any questions you do not wish to answer.

Privacy & Confidentiality; Your privacy and confidentiality will be maintained throughout the study. This means you will have control over how your personal information is collected, used, and shared at any time during and after the study

Benefits of Participation; Results from this study will assist in policy formulation that could be taken up to assist persons caring for children with mental illness. It will provide the care providers a chance to hire their challenges thus fostering resilience.

Costs and Compensation; No payment will be to done to those who volunteer to participate in the study.

Further Questions or Concerns

In case of concerns, you may contact the researcher on 0725973754, Chuka University or Chuka County Referral Hospital.

Statement of Consent

I have read and understood this consent form, or it has been read to me. All my questions have been answered, and I understand the risk that are involved and possible benefits too. I am aware that the participation is voluntary and I can withdraw at any time. By signing below, I consent to participate in this study.

I consent to participate in this research: Yes, _____ No _____

Participant's identifier _____

Participant's Signature/Thumb print: _____ Date: _____

Appendix II: Study Questionnaire

Questionnaire on, determinants of mental health status among primary caregivers of children with mental disorders

PART A: Socio Demographic Characteristics

1. How old are you? In years _____
2. What is your sex?
☐ Male
☐ Female
3. What is your highest level of education?
☐ None
☐ Primary
☐ Secondary
☐ Tertiary
4. What is your marital status?
☐ Single
☐ Married
☐ Widowed
☐ Separated
5. What is your relationship with the child with mental disorder?
☐ Father
☐ Mother
☐ Grandparent
☐ Hired care giver
☐ Others (please specify)
6. For how long have you been taking care of this child? Months/years.....

PART B; Individual Related Determinants

7. What is your employment status?
☐ Formally employed
☐ Informally employed
☐ Unemployed
8. Is the child registered in any health insurance/Social health authority (SHA)
☐ Yes
☐ No
9. How do you pay for child hospital bills?
☐ Cash
☐ Insurance/SHA
10. How can you rate your financial ability in relation to taking care of this child?
☐ I am financially stable
☐ I am trying but not adequate
☐ I am not able to meet basic needs of the child
11. How many children are in the home stead?.....

12. Who helps you to take care of the child?
- ☐ parent
 - ☐ Siblings
 - ☐ Neighbours and community members
 - ☐ Others (specify)
 - ☐ None
13. How often do you attend social gatherings within the community?
- ☐ often
 - ☐ rarely
 - ☐ Never
14. Do you regularly attend any support group with other caregivers of children with mental disorders, either in the community or hospital?
- ☐ yes
 - ☐ No
- If yes, specify.....
15. Which disorder is your child being managed for?
- ☐ specify
 - ☐ I don't know
16. What causes the above mental disorder? Tick all that applies
- ☐ Biological factors e.g. Genetics
 - ☐ psychological factors e.g. stress, childhood trauma
 - ☐ Environmental factors e.g. wars, famine
 - ☐ Maternal diseases during pregnancy
 - ☐ witch craft
 - ☐ Curses
 - ☐ Sins and demons
 - ☐ I don't know
17. Which part of a human being is affected in mental disorders?
- ☐ Mind
 - ☐ Body
 - ☐ Spirit
 - ☐ I don't know
18. Are mental disorders in children treatable in hospital?
- ☐ yes
 - ☐ No
19. Which treatment option are available in the hospital for your child? Tick all that apply
- ☐ Medical drugs
 - ☐ Rehabilitation
 - ☐ Psychological Counselling
 - ☐ Support groups
 - ☐ I don't know

20. Have you gone through any training on how to give care to this child?

☐ yes

☐ No

Kindly tick to what extent do you agree with the following statement (1- Strongly Agree, 2 Agree, 3-Neutral, 4-Disagree, 5- Strongly Disagree)

	Statement	1	2	3	4	5
21.	I fear appearing in public with my mental ill child					
22.	Families that have Mental disorders are cursed					
23.	Children with mental disorders have demons in them					
24.	Children with mental disorders should not attend regular school					
25.	Mental disorders can only be treated through prayers or witch doctors					
26.	Mental patients are very dangerous and harmful					
27.	People don't like to be associated with mental patients and their families					
28.	With good treatment children with mental disorders can live a normal life just like any other child.					
29.	I feel people don't like me and my child because of the mental disorder.					

PART C: Health Facility Related Determinants

30. How far is your home to this facility?

☐ Very far

☐ Near

31. Where can you find services for your child?

☐ Dispensary

☐ Health centre

☐ Level 4

☐ Level 5

32. Are all the medications and other services needed for your child care available during every visit?

☐ Available always

☐ Most of the times

☐ Rarely available

☐ Never available

33. How would you describe the services in terms of cost?

☐ Very expensive

☐ Moderately fair

☐ Affordable

☐ Services offered freely

34. Are there enough medical personnel to attend to your child and you any time your child needs help
- ☐ Always
 - ☐ Most of the time
 - ☐ Rarely
35. How would you describe the medical personnel's who attend to you and your child?
- ☐ Welcoming and respectful
 - ☐ Have a negative attitude
36. How do medical personnel react when your child behaves inappropriately/disorderly?
- ☐ Calm and empathetic
 - ☐ Feels offended
 - ☐ Shouts at the caregiver

Appendix III: Interview Guide

Question for key informant interview

Interview number _____

Date of interview / /

Interview location _____

Interviewer _____

Time begins: _____

Time end: _____

Key Informant Interview (KII) guide for health professionals (psychiatrist, psychiatric clinical officer, psychologist who are expected to have knowledge on mental health

1. Kindly introduce yourself
 - What is your designation?
 - What do you do in this clinic?
 - For how long have you working here?
2. Briefly describe the services you offer in this clinic.
3. All the mental health services in this clinic are affordable to all clients, discuss?
4. What has been your experience on management of children with mental disorders?
5. What is your professional view on giving care to children with mental disorders?
6. How does the community view and perceive mental disorders in children?
7. Describe care givers available services and their uptake?
8. How can you describe the relationship between health care workers and mental ill children and their caregivers?
9. Briefly describe mental health services in Tharaka Nithi county?
10. What would you recommend, in relation to caregivers' mental health in future?

Appendix IV: DASS 21 Mental Health Assessment Tool



DASS 21 NAME _____ DATE _____

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

The rating scale is as follows:

- 0 Did not apply to me at all - NEVER
- 1 Applied to me to some degree, or some of the time - SOMETIMES
- 2 Applied to me to a considerable degree, or a good part of time - OFTEN
- 3 Applied to me very much, or most of the time - ALMOST ALWAYS

FOR OFFICE USE

		N	S	O	AA	D	A	S
1	I found it hard to wind down	0	1	2	3			
2	I was aware of dryness of my mouth	0	1	2	3			
3	I couldn't seem to experience any positive feeling at all	0	1	2	3			
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3			
5	I found it difficult to work up the initiative to do things	0	1	2	3			
6	I tended to over-react to situations	0	1	2	3			
7	I experienced trembling (eg, in the hands)	0	1	2	3			
8	I felt that I was using a lot of nervous energy	0	1	2	3			
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3			
10	I felt that I had nothing to look forward to	0	1	2	3			
11	I found myself getting agitated	0	1	2	3			
12	I found it difficult to relax	0	1	2	3			
13	I felt down-hearted and blue	0	1	2	3			
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3			
15	I felt I was close to panic	0	1	2	3			
16	I was unable to become enthusiastic about anything	0	1	2	3			
17	I felt I wasn't worth much as a person	0	1	2	3			
18	I felt that I was rather touchy	0	1	2	3			
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3			
20	I felt scared without any good reason	0	1	2	3			
21	I felt that life was meaningless	0	1	2	3			
TOTALS						0	0	0

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Appendix V: University Ethics Clearance



CHUKA UNIVERSITY INSTITUTIONAL ETHICS REVIEW COMMITTEE

Telephones: 020-2310512/18

Direct Line: 0772894438

Email: info@chuka.ac.ke,

P. O. Box 109-60400, Chuka

Website: www.chuka.ac.ke

11th July, 2025

REF: CUIERC/ NACOSTI/822

TO: Lucy Wanja Kiraithe

RE: Determinants of Mental Health Status of Primary Care Givers of Children With Mental Disorders Attending Chuka Referral Hospital, Kenya

This is to inform you that *Chuka University IERC* has reviewed and approved your above research proposal. Your application approval number is *NACOSTI/NBC/AC-0812*. The approval period is 11th July, 2025 – 11th July, 2026.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by *Chuka University IERC*.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to *Chuka University IERC* within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to *Chuka University IERC* within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to *Chuka University IERC*.

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

Yours sincerely


Dr. Benjamin Kanga
SECRETARY



Appendix VI: University Introductory Letter



Knowledge is Wealth (*Sapientia divitia est*) Akili ni Mali

**OFFICE OF THE DIRECTOR
BOARD OF POSTGRADUATE STUDIES**

Telephones: 020-2310512/18
Direct Line: 020-268 7625

postgraduate@chuka.ac.ke

P. O. Box 109-60400, Chuka
Website: www.chuka.ac.ke

REF: HM10/57548/22

16th July, 2025

**Director
National Commission for Science Technology and Innovation
Off Waiyaki Way, Upper Kabete
P O Box 30623, 00100
Nairobi.**

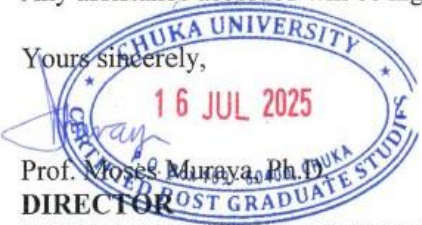
Dear Sir / Madam,

RE: LUCY WANJA KIRAITHE

The above-named person is a *bona fide* student of Chuka University pursuing MSC in Nursing proposal titled: **Determinants of Mental Health Status of Primary Care Givers of Children with Mental Disorders Attending Chuka Referral Hospital, Kenya.**

Ms. Kiraithe has defended at the Faculty level and is now expected to conduct research. Any assistance accorded will be highly appreciated.

Yours sincerely,


Prof. Moses Muraya, Ph.D.
**DIRECTOR
BOARD OF POSTGRADUATE STUDIES**

Appendix VII: County Authorization


THARAKA NITHI COUNTY GOVERNMENT
DEPARTMENT OF HEALTH SERVICES AND SANITATION
CHUKA REFERRAL HOSPITAL
OFFICE OF THE MEDICAL SUPERINTENDENT
P.O. BOX 8 – 60400
CHUKA

CELL: 0728 226 333 EMAIL: medsuptchuka@gmail.com

When replying please quote:
REF: CKA/MED/T/16/VOL.VI/293 DATE: 24TH JULY, 2025

LUCY WANJA KIRAITHE
REG NO: HM10/57548/22
ID NO: 13871968

**RE: NO OBJECTION TO REQUEST FOR AUTHORIZATION TO COLLECT
DATA AT CHUKA COUNTY REFERRAL HOSPITAL**

The above subject refers.

Following your request via institution letter dated **16th July, 2025**, and your application letter received on **24th July, 2025**, for an opportunity to carry out data collection on **"Determinants of Medical Health Status of primary Caregivers of Children with Mental Disorders attending"** Chuka County Referral Hospital from **25th July 2025** to, **25th August, 2025**, your request has been granted.

This is subject to the following;

- That you will adhere to all the Ethical Guidelines for your research as stipulated in your Institutional Ethics Review Committee recommendations.
- That you will commit to share your research findings with the Hospital for purposes of Quality Improvement in Service Delivery.
- That the data collection exercise will not interfere with service delivery at the hospital.

If the conditions stipulated above are acceptable to you, kindly sign below:

NAME LUCY WANJA KIRAITHE SIGN [Signature] DATE 24/7/2025

[Signature]
ENID KARIMI MBAKA
HUMAN RESOURCE OFFICER
CHUKA COUNTY REFERRAL HOSPITAL



Appendix VIII: Research License

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 152952	Date of Issue: 23/July/2025
RESEARCH LICENSE	
	
This is to Certify that Miss. LUCY WANJA KIRAITHE of Chuka University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Tharaka-Nithi on the topic: DETERMINANTS OF MENTAL HEALTH STATUS OF PRIMARY CARE GIVERS OF CHILDREN WITH MENTAL DISORDERS ATTENDING CHUKA REFERRAL HOSPITAL, KENYA for the period ending : 23/July/2026.	
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