UNIVERSITY FOR DEVELOPMENT STUDIES

# LIVING WITH TUBERCULOSIS: A QUALITATIVE STUDY OF PATIENTS' EXPERIENCES WITH DISEASE AND TREATMENT AT THE TAMALE TEACHING HOSPITAL

BY

FUSEINI SAEEDA

(UDS/MPH/0013/21)

THESIS SUBMITTED TO THE DEPARTMENT OF GLOBAL AND INTERNATIONAL HEALTH, SCHOOL OF PUBLIC HEALTH IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER OF PUBLIC HEALTH DEGREE IN GLOBAL AND INTERNATIONAL HEALTH

# DECLARATION

## Student's Declaration

I Fuseini Saaeda declare that, this submission is my own work leading to the Award of a Master of Science Degree in Public Health and that to the best of my knowledge, it contains materials neither published by another person nor materials which have been presented for the award of any degree at a university or elsewhere, except where due acknowledgements have been made in this text.

Fuseini Saaeda  28/03/2025

(Student's Name) (Signature) (Date)

## Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis was supervised in accordance of the guidelines of supervision on thesis laid down by the University for Development Studies.

Dr. Abukari Salifu  28/03/2025

(Supervisor's Name) (Signature) (Date)

## ABSTRACT

Tuberculosis (TB) remains a significant public health challenge, particularly in resource-limited settings like Ghana, where stigma, financial constraints, and healthcare access barriers complicate patient care. Despite efforts to improve TB management, little is known about the lived experiences of TB patients at Tamale Teaching Hospital. This study explores these experiences, shedding light on the emotional, psychological, social, and economic challenges patients face during treatment.

A qualitative research design was employed, utilizing in-depth interviews with TB patients at Tamale Teaching Hospital. Participants were selected through purposive sampling, ensuring a diverse range of perspectives. Data was analyzed using thematic analysis to identify recurring themes and patterns. Findings revealed that TB patients experience profound emotional and psychological distress, including fear, anxiety, depression, and social isolation due to stigma. Economic hardships, job loss, and financial burdens further complicate their treatment journey. While some patients reported receiving adequate support and quality care from healthcare providers, others expressed dissatisfaction, particularly regarding the provision of information on treatment and side effects. The impact of TB extends beyond physical symptoms, affecting relationships, employment, and overall well-being.

It is recommended that Tamale Teaching Hospital enhances patient education on TB treatment and side effects, integrate mental health counseling into TB care, and strengthen financial and logistical support for economically disadvantaged patients. Regional health authorities should improve TB monitoring strategies, while national-level policies should consider expanding psychosocial support initiatives.

## ACKNOWLEDGEMENT

I am most grateful to Almighty God for the knowledge, strength, and guidance He has given me throughout this project. I also express my profound gratitude to my supervisor. Dr. Abukari Salifu Hod for Dept of Epidemiology Biostatistics and Disease Control. School of Public Health UDS. I equally wish to express my sincere thanks to my parents for their support throughout my education.



## DEDICATION

I dedicate this piece of work to the Almighty God and my family for their love and unwavering support and for inspiring me to achieve greater heights in life. I am extremely grateful



# TABLE OF CONTENTS

## LIST OF TABLES





## LIST OF ABBREVIATION

TB - Tuberculosis

WHO - World Health Organizations

GHS - Ghana Health Service

MDR - Multidrug-Resistant

PTSD - Post-Traumatic Stress Disorder

HIV - Human Immune Virus

XDR-TB - Extensively Drug-Resistant Tuberculosis

TTH - Tamale Teaching Hospital

Sub BMCs - sub–Budget Management Centers

HBM - Health Belief Model

RR/MDR-TB - Rifampicin-Resistant or Multidrug-Resistant Tuberculosis

DOT - Directly observed therapy

HADS - Hospital Anxiety and Depression Scale

CMD - common mental disorders



# CHAPTER ONE

# INTRODUCTION

## 1.1 Background

Tuberculosis (TB) remains a pressing public health issue, requiring attention beyond its biomedical dimensions. Living with TB involves navigating a complex web of challenges that extend beyond physical symptoms. The disease carries significant social, emotional, and economic implications for affected individuals and their communities. Stigma is a pervasive issue among TB patients worldwide, leading to discrimination, social isolation, and delayed diagnosis and treatment (Courtwright & Turner, 2011).

Tuberculosis is an infectious disease that primarily affects the lungs and is caused by the bacterium *Mycobacterium tuberculosis*. It spreads through the air when infected individuals cough, sneeze, or spit. According to the World Health Organization (WHO, 2021), about a quarter of the global population is estimated to be infected with TB bacteria. TB remains a significant global health challenge, particularly in low- and middle-income countries where access to healthcare resources is limited (WHO, 2021). The World Health Organization (WHO) recommends that TB care should be comprehensive, incorporating not only medical treatment but also social, economic, and psychological support to improve patient outcomes and enhance their quality of life. According to the Ghana National Tuberculosis Control Programme (GNTCP), TB patients should receive standardized care, including free diagnosis and treatment, nutritional support, and regular follow-ups to ensure adherence and minimize treatment default rates (GHS, 2020).

In Ghana, TB is a major public health concern, contributing to significant morbidity and mortality (Ghana Health Service, 2020). In 2020, WHO estimated that there were 10 million new TB cases globally, with over 1.4 million TB-related deaths. Sub-Saharan Africa carries a substantial share

of this burden, including Ghana, which recorded over 30,000 new TB cases in 2020 (WHO, 2021). The disease remains widespread, with a projected incidence rate of 65 cases per 100,000 population in 2019, according to a study conducted in the Volta Region (Osei et al., 2019).

Tamale Teaching Hospital, located in the Northern Region of Ghana, plays a critical role in addressing the healthcare needs of a diverse and often underserved population. Within this context, TB patients experience significant emotional distress, including anxiety, depression, and uncertainty about their future (Kipp et al., 2011). The demanding nature of TB treatment, which often lasts several months, contributes to treatment fatigue and non-adherence, further complicating disease management (Munro et al., 2017). Various risk factors, such as overcrowded living conditions, malnutrition, coexisting conditions like HIV/AIDS, and restricted access to medical services, all contribute to high TB incidence and the challenges patients face (Lönnroth et al., 2019).

Beyond physical symptoms, TB imposes a severe emotional strain on patients. Many individuals experience anxiety and fear after diagnosis, worrying about their health and the impact on their families. The stigma associated with TB exacerbates these emotional struggles, leading to social isolation and discrimination within their communities (Courtwright & Turner, 2011). Psychologically, the prolonged and demanding TB treatment regimen creates significant stress and depression among patients. The frequent intake of medications, often accompanied by side effects, adds to treatment fatigue and increases the likelihood of non-adherence (Kipp et al., 2011; Munro et al., 2017). These challenges are further compounded by socio-economic constraints, such as poverty, which limits access to proper nutrition and healthcare services, worsening health outcomes for TB patients (Lönnroth et al., 2019).

Socially, the stigma surrounding TB affects how patients are treated by others, harming their relationships and economic opportunities. Discrimination in workplaces and social settings further isolates individuals, reducing their ability to seek timely medical care and adhere to treatment. the economic impact of TB is severe, often affecting already vulnerable populations and leading to income loss and financial strain on families.

Given these multifaceted challenges, it is crucial to document and understand the holistic experiences of TB patients at Tamale Teaching Hospital. By uncovering these dimensions, healthcare professionals can design interventions that address not only the biological aspects of the disease but also the social and psychological well-being of patients. Strategies such as community education to combat stigma, mental health support services, and programs to improve access to nutrition and economic opportunities for affected individuals are essential. A holistic approach that integrates medical care with attention to the emotional, social, and economic needs of TB patients is critical in reducing the impact of the disease and enhancing overall quality of life. These insights can inform policies and practices aimed at optimizing patient outcomes and creating a supportive environment for TB patients at Tamale Teaching Hospital and similar settings globally.

A comprehensive understanding of TB patients' lived experiences within the specific context of Tamale Teaching Hospital is essential. Documenting the emotional, psychological, social, and economic dimensions of their experiences will help provide recommendations to mitigate the impact of TB on their quality of life and improve their overall well-being.



## 1.2 Problem Statement

TB is one of the top ten causes of mortality in the world, with an estimated 10 million people falling ill and 1.5 million dying from the disease in the year 2020 alone (WHO, 2021). TB is a significant health problem in Ghana, with a prevalence rate of 290 per 100,000 population (Ghana Health Service, 2020). Northern Ghana has the highest TB prevalence rate in Ghana, with a rate of 410 per 100,000 population (Ghana Health Service, 2020). At Tamale Teaching Hospital (TTH), high default rates (12.5%) and adverse drug reactions (ADRs) affecting 77% of patients highlight urgent challenges in TB care (Amalba, 2021).

While existing studies identify structural barriers such as food insecurity, transportation costs, and stigma (Rahmati, 2023), there is limited qualitative exploration of how these factors intersect with patients' lived experiences in northern Ghana. Specifically, the socio-cultural dynamics influencing TB patients' daily lives—including the psychological impact of stigma, familial support structures, and coping mechanisms during long treatment regimens—remain underexplored in TTH's context. Despite the implementation of DOTS and community-based TB programs in Ghana, persistent default rates and ADR-driven non-adherence at TTH underscore patient-level challenges.

Existing research lacks insights into how socio-cultural, economic, and healthcare system factors shape TB patients' lived experiences in northern Ghana. This study seeks to address this knowledge gap by exploring the lived experiences of TB patients at Tamale Teaching Hospital. It aims to answer the following key research question: How do TB patients experience and perceive their disease, treatment, and care at Tamale Teaching Hospital? By answering this question, the

study will contribute to improving TB care by providing evidence-based insights into patient experiences, identifying deficiencies in care, and recommending patient-centered interventions.

### 1.3 Research Questions

1. How do TB patients experience and perceive their disease, treatment, and care at Tamale Teaching Hospital?
2. What are the psychosocial, economic, and healthcare-related challenges TB patients face during treatment?
3. How do TB patients navigate these challenges and what coping mechanisms do they adopt?
4. How do TB patients perceive the effectiveness and side effects of their treatment?
5. How do TB patients understand and interpret their condition in relation to their daily lives and well-being?

### 1.4 Research Objectives

#### 1.4.1 Main Objective

The aim of this study is to explore and understand the lived experiences of tuberculosis (TB) patients receiving treatment at the Tamale Teaching Hospital, with a focus on their perspectives on the disease, risk factors, economic burdens and its treatment.

#### 1.4.2 Specific Objectives

The specific objectives of the study are:

1. Describe the lived experiences of TB patients at Tamale Teaching Hospital, including their perceptions of the disease, treatment, and care.
2. Understand the psychosocial, economic, and healthcare-related factors influencing TB patients' experiences with disease management and treatment adherence.

3. Explore how TB patients navigate challenges and their coping mechanisms in living with and managing TB disease.
4. Examine patients' perspectives on the effectiveness and side effects of TB treatment.
5. Gain insight into how TB patients interpret their condition and how it affects their daily lives and well-being.



### 1.5 Significance of the study

The significance of the study on the experiences of tuberculosis (TB) patients at the Tamale Teaching Hospital is based on its potential to produce significant insights that can influence and strengthen TB management and intervention methods at many levels. Understanding the lived experiences of TB patients, including their perspectives of the disease, treatment, and care, is critical for healthcare providers. This knowledge can help tailor patient-centered care approaches, ensuring that treatments are matched with patients' needs and preferences. By explaining how patients view TB and its treatment, healthcare clinicians can develop more effective communication strategies that address patients' concerns and misconceptions, thereby enhancing adherence to treatment regimens and clinical results.

The study also sheds insight on the emotional, economic, and healthcare-related elements influencing TB patients' experiences with illness management and medication adherence. TB not only impacts the physical health of patients but also has deep emotional and economic effects. Understanding these aspects helps lead the establishment of comprehensive support systems that serve the holistic needs of TB patients. Interventions could include counseling services, financial assistance programs, and community-based support groups to help patients overcome the problems associated with TB treatment and care. Describing how TB patients negotiate challenges and their coping mechanisms might inform the creation of interventions that boost patients' resilience and

ability to manage their condition. Identifying effective coping mechanisms employed by patients can provide a basis for peer-support groups where experienced patients mentor and support those newly diagnosed. This peer-support technique can promote patients' psychological well-being and adherence to therapy by developing a sense of community and shared experience. Knowing patients' opinions on the effectiveness and adverse effects of TB treatment is crucial for refining treatment protocols and resolving barriers to adherence. Insights gained from patients' experiences can inform the development of therapies to minimise side effects, promote therapy tolerance, and support patients in managing adverse responses. This patient-centered approach guarantees that treatment approaches are both effective and comfortable, enhancing overall treatment success rates.

From a public health standpoint, the study's findings can inform policy and program development at the regional and national levels. By exposing the specific requirements and obstacles experienced by TB patients in the Tamale Teaching Hospital, authorities may allocate resources more effectively and devise focused interventions to improve TB care. Additionally, the study can contribute to the body of information essential to advocate for increased financing and support for TB initiatives, particularly in resource-limited areas. The study's ramifications extend to global health, as it contributes to the greater understanding of TB management in varied circumstances. Comparing findings from the Tamale Teaching Hospital with those from other locations and nations allows academics and policymakers to identify common difficulties and successful measures, boosting international collaboration and knowledge exchange. This global viewpoint is vital for establishing comprehensive methods to TB control and eradication. This study is notable in its potential to improve clinical care, support systems, and public health measures for TB patients. By offering a detailed perspective of TB patients' experiences, the research can promote

patient-centered care, educate policy and program development, and contribute to worldwide efforts to eliminate TB. The insights gathered from this study will be essential in developing interventions that are relevant to the requirements of TB patients, thereby enhancing their health outcomes and quality of life.



# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

One major worldwide health concern continues to be tuberculosis (TB) remains a significant global health concern, particularly in resource-constrained settings where availability to healthcare services, diagnostics, and treatment can be limited. The burden of TB is disproportionately borne by individuals in low and middle-income countries, where challenges related to poverty, healthcare facilities, and social determinants of health intersect to create a complex healthcare landscape. Understanding the experiences of individuals living with TB, including their encounters with the healthcare system, is crucial for improving TB control efforts and addressing the needs of affected communities. This literature review explores a specific aspect of the TB epidemic in terms of global perceptive, Ghana as a country and the northern region specifically, the patient's actual experiences diagnosed with TB and their interactions with the healthcare system during their treatment journey in the Tamale Teaching Hospital.

## 2.2 Background and significance of tuberculosis (TB) as a global health concern

In 2006, 9.2 million new cases of tuberculosis (TB) were estimated by the World Health Organization (WHO), of which 4.1 million were smear-positive cases (equivalent to incidence rates of 139/100,000 and 61/100,000, respectively) (Organization, 2008). There were an estimated 14.4 million prevalent TB cases (219/100,000) in all types and 1.7 million TB-related fatalities (25/100,000) in the same year, with 95% of the cases and deaths occurring in developing nations (Lönnroth & Raviglione, 2008). Of the cases worldwide, 31% were in Africa and 55% were in Asia (WHO, 2008). Twelve of the fifteen nations with the highest estimated rates of tuberculosis incidence were in Africa, with an incidence rate of 363/100,000 cases. The main causes of this are

the high incidence of HIV and the inability of the health system to handle the twin epidemic. Roughly 700,000 (or 6.6% of all anticipated new TB cases) were estimated to be HIV positive in 2006. An estimated 500,000 cases of multidrug-resistant (MDR) tuberculosis were reported in 2006. Of these, 85% are located in 27 WHO MDR-TB priority countries, 15 of which are in eastern Europe and have the highest rates of MDR-TB per capita (Organization, 2008).

Because of its high rates of morbidity, death, and broad incidence, tuberculosis (TB) continues to be one of the most serious infectious diseases in the world and presents a substantial public health concern (Organization, 2022). Despite its ancient history, tuberculosis still affects millions of people every year, especially in low- and middle-income nations where resources for diagnosis, treatment, and prevention are scarce (Organization, 2022)

The bacteria Mycobacterium tuberculosis is the cause of tuberculosis (TB), which mostly affects the lungs but can also affect other regions of the body, according to the World Health Organization (WHO) (Organization, 2022). The disease is extremely contagious because it spreads via the air when an infected person coughs, sneezes, or talks. In disadvantaged populations, a number of factors, including poverty, congested living circumstances, malnutrition, and compromised immune systems, contribute to the transmission and intensity of tuberculosis (Organization, 2022).

For afflicted individuals, families, and communities, tuberculosis (TB) has serious social, economic, and health ramifications. When the illness affects people in their prime, it frequently results in significant morbidity and mortality if treatment is not received. TB not only causes physical symptoms and consequences, but it also has a significant psychological cost, with infected individuals frequently facing social isolation, prejudice, and stigma.

Furthermore, tuberculosis (TB) places a substantial financial strain on patients and healthcare systems alike. The expenses linked to tuberculosis diagnosis, treatment, and care might exacerbate

pre-existing socioeconomic inequality by driving affected households even deeper into poverty (Tanimura et al., 2014). Economic costs occur at the individual, household, and societal levels as a result of TB-related absenteeism from work or school, income loss, and decreased productivity. Despite advancements in TB control measures, obstacles include medication resistance, insufficient healthcare facilities, and unequal access to care persist in impeding attempts to eradicate tuberculosis as a worldwide health concern (Lönnroth & Raviglione, 2008). An all-encompassing, multi-sectoral strategy that includes early detection, treatment at the earliest possible stage, prevention, and support for impacted individuals and communities is needed to combat tuberculosis (Organization, 2015).

In order to bring tuberculosis under control and eventually eradicate it, cooperation, resources, and ongoing attention are needed. Policymakers, healthcare professionals, and communities may collaborate to address the varied obstacles presented by the disease and enhance outcomes for TB patients globally by having a thorough awareness of the history and relevance of tuberculosis (TB) as a complex health issue.



Tuberculosis (TB) has plagued humanity for centuries, earning monikers like "consumption" and "the White Plague" due to its devastating effects on individuals and communities (Krishna, 2022). Even with advancements in public health and medicine, tuberculosis (TB) continues to pose a serious threat to world health. Poverty fosters the growth of illness, which disproportionately affects marginalized groups that have little access to resources and healthcare. In high-burden environments, it spreads because to insufficient sanitation, malnutrition, and crowded living circumstances (Tanimura et al., 2014).

Treatment attempts are made more difficult by the rise of drug-resistant TB strains, such as extensively drug-resistant TB (XDR-TB) and multidrug-resistant TB (MDR-TB). Drug-resistant

TB strains must be treated with expensive, time-consuming regimens containing drugs that frequently have serious adverse effects (Pontali et al., 2019). Co-infection with HIV increases the risk of TB because HIV compromise immunological function, increasing the susceptibility to TB infection and the likelihood that TB will develop to active illness (Sharan et al., 2020).

Beyond the individual, families, communities, and healthcare systems are all impacted by tuberculosis. The financial toll that tuberculosis (TB) has on impacted individuals and households is significant due to both direct and indirect expenses. In impacted communities, TB-related productivity losses—such as missed workdays and diminished earning potential—increase socioeconomic inequality and prolong poverty cycles (Tanimura et al., 2014).

The difficulties are made worse by prejudice and stigma surrounding tuberculosis. Early diagnosis, treatment compliance, and community involvement in TB reduction initiatives are hampered by misinformation and fear. Comprehensive approaches that address the socioeconomic determinants of health, such as poverty, inequality, and access to healthcare, are necessary to combat tuberculosis (Moodley et al., 2020).

The goal of recent international initiatives like the Sustainable Development Goals and the End TB Strategy is to hasten the process of eliminating tuberculosis. But attaining TB eradication necessitates ongoing political support, more funding for innovation and research, and improved health systems that can provide patient-centered treatment to all TB patients.

The most frequent cause of mortality from a single infectious infection in 2019 was tuberculosis. An estimated 10.0 million persons worldwide contracted TB in 2019, while an additional 208,000 people living with HIV died from the disease. Of those who died from TB, an estimated 1.2 million were HIV-negative. Of all TB patients, adults made up 88% and children under the age of 15 made up 12% (Chakaya et al., 2021).

The WHO regions of South-East Asia (44%), Africa (25%), and the West Pacific (18%) had the highest rates of tuberculosis cases in 2019. The Eastern Mediterranean (8.2%), the Americas (2.9%), and Europe (2.5%) had the lowest rates. Two thirds of the total worldwide was made up of eight nations: South Africa (3.6%), Nigeria (4.4%), Bangladesh (3.6%), Indonesia (8.5%), China (8.4%), the Philippines (6.0%), Pakistan (5.7%), Nigeria (4.4%), and India (26%) (Chakaya et al., 2021).

Although there has been some progress, it has been very sluggish, and the End TB Strategy's goal of eliminating tuberculosis as a global public health issue by 2035 is not expected to be met (Chakaya et al., 2021). For instance, the 2020 global TB report shows that, despite the goal of reducing TB incidence by 20% between 2015 and 2020, there was only a 9% drop in TB incidence during this time, with an annual reduction of just roughly 2%. Similarly, only a 14% decrease in death rates was attained between 2015 and 2020, falling short of the 35% mortality reduction targets (Chakaya et al., 2021). The main obstacles are related to deficiencies in the diagnosis of TB, including drug-resistant TB, for all cases of TB and drug-resistant TB in particular, TB prevention, and funding of the TB response, which includes funding for critical TB research. In this paper, we provide the 2020 WHO Global TB report's status for TB care and prevention, emphasize the ongoing barriers, highlight the efforts being made to overcome these barriers, and provide recommendations for how these efforts could be intensified (Chakaya et al., 2021).

## 2.2 The Lived Experiences of TB patients (psychosocial, economic and emotional challenges)

### 2.2.1 Psychosocial challenges faced by tuberculosis patients.

The stigma associated with tuberculosis arises from apprehension, misunderstandings, and cultural attitudes towards the illness. Individuals diagnosed with tuberculosis (TB) may face social exclusion or rejection from their communities, resulting in emotions of shame, humiliation, and

diminished self-worth (Kipp et al., 2011). Discrimination can manifest in several environments, such as workplaces, schools, and healthcare institutions, where individuals with tuberculosis may encounter exclusion, refusal of services, or even verbal mistreatment (Shringarpure et al., 2016). To combat the stigma associated with tuberculosis, it is necessary to educate the public, advocate for change, and actively involve the community. This will help eliminate misconceptions, confront preconceived notions, and foster compassion and comprehension towards those affected by the disease.

According to research, stigma is a social determinant of health that significantly impairs one's capacity to manage sickness and finish therapy as well as obtain health care, delaying diagnosis (Munro et al., 2007). The majority of conceptualizations of stigma are derived from Goffman (Goffman, 2009), who described stigma as "an attribute that is deeply discrediting" that "spoils" a person's sense of self or social identity. Goffman made a distinction between the "discreditable," or those whose stigma is only sometimes evident, such as in the case of epilepsy, and the "discredited," or those whose stigma is obviously visible or "known about" (Scambler & Hopkins, 1986). Scambler (1986) made a distinction between "enacted" stigma, which is an overt act of prejudice, and "felt" stigma, which is the fear of discrimination that people feel. Because of the psychological work (covering) a person must do to keep the stigma hidden from others, such as secrecy, avoidance, and withdrawal from relationships, he proposed that felt stigma was ultimately more emotionally and socially disruptive than enacted stigma. This can lead to social isolation and loneliness, or in some cases, risky behaviour (Lönnroth et al., 2015). The way stigma spreads to others because of their affiliation with the stigmatized person is referred to as "courtesy stigma" by Goffman.

When it comes to comprehending stigma in connection to societal diseases like tuberculosis, these aspects of stigma are neither all-inclusive nor mutually exclusive. Instead, they are intrinsically connected to a person's social standing (Daftary, 2012). People with overlapping illnesses and social situations are more likely to experience double or multiple stigmas. For instance, there is evidence of numerous stigmas related to mental illness and age, mental illness and race and mental disease and cancer (Holland et al., 2010). HIV-positive individuals are also known to experience many stigmas related to their gender, sexual orientation, race, and/or minority ethnic background (Bogart et al., 2011)

Individuals diagnosed with tuberculosis (TB) frequently refrain from participating in social activities and interactions due to their apprehension of spreading the disease to others and their worries about being judged or rejected by their peers (Macintyre et al., 2017). Experiencing social isolation can result in emotions of loneliness, melancholy, and anxiety, as individuals face the challenge of both treating their illness and dealing with the negative perception of tuberculosis (Singh et al., 2018). Establishing robust social networks, cultivating peer relationships, and offering avenues for community involvement can effectively alleviate social isolation and enhance patients' feelings of belonging and inclusion.

In contexts with limited resources, where individuals are required to pay for healthcare bills directly, the financial burden of diagnosing and treating tuberculosis can be extremely burdensome for both patients and their families (Singh et al., 2018). Individuals diagnosed with tuberculosis (TB) may encounter difficulties in paying for transportation to healthcare facilities, acquiring necessary drugs, and meeting medical bills, resulting in financial adversity and emotional suffering (Shringarpure et al., 2016). Access to social protection programmes, financial aid, and

microfinance efforts can mitigate the economic impact of tuberculosis and minimize excessive healthcare costs for affected individuals and households.

Fear of admitting their TB diagnosis can impede patients from obtaining social support, disclosing their disease to family members, or receiving healthcare services (Kipp et al., 2011). TB patients may worry about encountering stigma, prejudice, or adverse consequences if their diagnosis becomes known to others, leading to secrecy and isolation (Shringarpure et al., 2016). Encouraging open conversation, providing confidential counseling services, and creating secure environments for disclosure can assist address patients' worries and encourage transparency and trust within healthcare settings.

The psychosocial problems connected with TB can have a tremendous impact on patients' mental health and emotional well-being. Depression, anxiety, and post-traumatic stress disorder (PTSD) are widespread among TB patients, with studies indicating significant rates of psychological discomfort and psychiatric comorbidities (Marais et al., 2013). Mental health support services, including counseling, psychotherapy, and peer support groups, are critical components of comprehensive TB treatment programs, helping patients cope with the emotional toll of their condition and build resilience in the face of hardship (Marais et al., 2013).

Stigma around tuberculosis (TB) has the potential to seriously impede prompt diagnosis, treatment initiation, and patient retention. In an effort to escape the stigma attached to tuberculosis, stigmatized people may put off seeking medical attention, disregard or deny their symptoms, or self-medicate (Kipp et al., 2011). Delays in seeking medical attention may result in delayed diagnosis, which could allow the illness to worsen unchecked and raise the possibility of spreading to other members of the community (Shringarpure et al., 2016).



Even when people with tuberculosis (TB) seek medical attention, they may run into prejudice and stigma in medical settings, which can result in less-than-ideal treatment and care. Patients' trust in the healthcare system can be damaged by unfavorable attitudes and actions on the part of healthcare professionals, which may discourage them from following treatment recommendations or obtaining follow-up care (Macintyre et al., 2017). Because stigma has an adverse effect on treatment-seeking behavior, tuberculosis patients may suffer from worse treatment results, higher rates of treatment failure, and increased morbidity and mortality.

It takes a variety of approaches to address the stigma associated with tuberculosis (TB), including individual, interpersonal, and systemic aspects that contribute to stigma in communities and healthcare systems. Dispelling myths and misconceptions about tuberculosis (TB), challenging prejudices, and fostering empathy and understanding towards affected individuals can all be achieved through education, awareness-raising campaigns, and community involvement activities (Somma et al., 2008). Furthermore, lowering stigma in healthcare settings and enhancing the standard of care and treatment outcomes for TB patients can be achieved by giving healthcare professionals the tools and support they need to provide nonjudgmental, patient-centered care. By addressing these psychosocial problems, healthcare practitioners, politicians, and communities may create more supportive and inclusive environments for people with TB, ensuring that they receive the complete treatment and support they need to overcome the emotional and social repercussions of the disease (Craig et al., 2017).

### 2.2.2 Economic consequences of tuberculosis

TB has a substantial financial burden to patients, families, communities, and healthcare systems due to direct medical expenses as well as indirect socioeconomic effects. The financial effects of

tuberculosis (TB) are complex and can take many different forms, such as decreased productivity, higher medical costs, and worsening poverty.

People who have tuberculosis (TB) frequently do so during the years when they are most productive economically, which results in large production losses from illness, disability, and early death. Long-term absences from work or school, decreased earning potential, and a decrease in labour force participation are all possible outcomes of the condition, especially for people who have drug-resistant TB or comorbidities associated to TB (Ukwaja et al., 2013). In addition to having an impact on the individual, productivity loss also has larger ramifications for household income, economic expansion, and national development (Ukwaja et al., 2013).

Individuals and households are severely financially burdened by tuberculosis (TB), especially in low- and middle-income nations where out-of-pocket medical expenses are large (Laokri et al., 2013). Affected people and their families may become even more impoverished as a result of the expenses related to TB diagnosis, treatment, and care, which include doctor visits, diagnostic tests, drugs, and hospital stays (Laokri et al., 2013). The financial burden of the disease is further increased by the indirect costs of TB, which include lost wages owing to illness, lodging fees, and transportation to medical facilities (Laokri et al., 2013).

Poverty and tuberculosis are strongly related; in impacted communities, tuberculosis both causes and maintains cycles of poverty. As they struggle to deal with the financial implications of the disease and its impact on their livelihoods, disadvantaged individuals and households may become even more impoverished as a result of the economic consequences of tuberculosis (TB) (Wingfield et al., 2014). TB control efforts and sustainable development objectives are hampered by the vicious cycle of poverty and illness, which raises the risk of TB transmission and disease progression (Wingfield et al., 2014).



Healthcare systems are severely impacted by tuberculosis (TB), especially in areas with minimal resources where the disease is most prevalent. Budgets for healthcare are significantly impacted by the expenses of tuberculosis diagnosis, treatment, and care, which take money away from other important health services and priorities (Ukwaja et al., 2013). Additionally, managing drug-resistant TB strains over the long term puts additional strain on the healthcare system's personnel and infrastructure, necessitating the use of specialized facilities, tools, and knowledge to provide affected patients with the best treatment possible. Tanimura et al (2014) did a systematic review on financial burden for tuberculosis patients in low-and middle-income countries. Their review revealed that the financial burden of tuberculosis patients is substantial, with costs ranging from $55 to $8198, mainly attributed to income loss. On average, 20% of the total cost was due to direct medical costs, 20% to direct non-medical costs, and 60% to income loss. Half of the total cost was incurred before TB treatment. The total cost was equivalent to 58% of reported annual individual income and 39% of reported household income on average. Income loss often constitutes the largest financial risk for TB patients (Tanimura et al., 2014). Direct medical costs, direct non-medical costs, and income loss contribute significantly to the total cost. Income loss is a major financial risk for TB patients, with costs equivalent to a significant percentage of their annual income. Accessing TB care and continuing treatment poses a high risk of financial ruin or further impoverishment for many individuals (Tanimura et al., 2014).

Socioeconomic disparities already present in countries are made worse by tuberculosis (TB), which disproportionately affects the weakest and most marginalized groups in society. Higher TB prevalence rates in disadvantaged populations are a result of substandard living conditions, restricted social support networks, and poor access to healthcare (Laokri et al., 2018). These factors also perpetuate disparities in health outcomes and access to care. In order to address the economic

effects of tuberculosis, it is necessary to address the underlying socioeconomic determinants of health, which include poverty, inequality, and limited access to healthcare and education.

### 2.2.3 Emotional distress and mental health implication of Tuberculosis

Tuberculosis (TB) not only affects physical health but also has profound emotional and mental health implications for individuals living with the disease. The diagnosis, course of treatment, and obstacles related to tuberculosis (TB) can cause severe emotional anguish and mental health issues that can negatively influence an affected person's general health.

Feelings of humiliation, embarrassment, and solitude among person's afflicted with tuberculosis can be exacerbated by stigma and discrimination around the illness. Stigma around tuberculosis can lead to discrimination in a variety of contexts, such as schools, workplaces, and healthcare facilities, as well as social rejections and exclusion from community activities. According to Hargreaves et al. (2017), these experiences of stigma can have a detrimental effect on one's quality of life, mental health, and self-esteem. Individuals diagnosed with TB may have emotions of shame and self-blame, especially if they believe that their behavior or living environment led to their diagnosis. This sense of individual accountability can worsen emotional pain and negatively damage mental well-being. Individuals may internalize societal stigma and misinformation regarding TB, resulting to self-stigmatization and a sense of worthlessness (Karasz et al., 2015).

Anxiety and depression are two mental health issues that can be made worse or brought on by the uncertainty and stress around a tuberculosis diagnosis and treatment. People who have tuberculosis (TB) may be plagued by ongoing concerns about their well-being, the results of their medical care, and the disease's effects on their life. Distress, pessimism, and melancholy can be exacerbated by the protracted nature of tuberculosis treatment and possible drug side effects (Kendall et al., 2011).

The diagnosis and treatment of tuberculosis (TB) can be unpleasant for many individuals,



especially if they have experienced severe sickness, treatment failure, or consequences. These traumatic events may result in the development of Post-Traumatic Stress Disorder (PTSD), which manifests as intrusive thoughts, nightmares, hypervigilance, and avoidance behaviors related to triggers associated with tuberculosis. According to Munro et al. (2013), PTSD can seriously affect every day functioning and quality of life, necessitating specialist mental health assistance and therapies. For some individuals, the treatment and diagnosis of TB might affect their sense of identity and self-esteem. The physical symptoms of TB, such as coughing, weight loss, and weariness, might change one's look and capacity to engage in typical activities, leading to feelings of social retreat and alienation. Individuals may struggle to preserve their sense of self-worth and identity among the hardships of TB diagnosis and treatment (Lutge et al., 2015). Despite the emotional distress linked to TB, individuals may also display resilience and adaptive coping methods in reaction to their condition. Drawing on personal strengths, networks of social support, and cultural or spiritual convictions, individuals can develop successful coping mechanisms to handle the obstacles of TB diagnosis and treatment. Resilience-building therapies that strengthen individuals' coping skills and foster positive coping mechanisms can support psychological well-being and mental health outcomes (Meyer et al., 2015).

Patients with tuberculosis may isolate themselves from social situations and activities out of fear of spreading illness to others or out of worry about prejudice and stigma. Feelings of despair, anxiety, and emotional pain can be made worse by social isolation and loneliness because people find it difficult to deal with the difficulties of TB diagnosis and treatment on their own. Mental health issues can be made worse by a lack of social support systems and few opportunities for meaningful social interaction (Mavhu et al., 2017). According to Peltzer et al. (2010), few research has investigated the link between TB and common mental disorders (CMD) in middle and low-

income countries. Despite the restricted number of studies on the subject, there is emerging evidence that emotional distress manifested in terms of depression and anxiety is very high. In an Ethiopian sample 46.7% of the TB individuals with HIV negative status reported with high levels of discomfort, this number jumps to 63.7% in TB patients with HIV positive status (Rubeen et al., 2014). A South African study indicated that 87% of the TB patients exhibited with substantial emotional distress10. A recent study in Pakistan revealed that 37.1% of TB patients from an outpatient clinic had anxiety as well as depression according to the Hospital Anxiety and Depression Scale (HADS) (Araújo et al., 2014). Brazilian research discovered a 34% increase in the incidence of pulmonary TB among persons with CMD notably at the level of depressive attitude and thinking (Peltzer et al., 2012).

Treatment adherence and outcomes for tuberculosis might be negatively impacted by emotional discomfort and mental health issues. Significantly distressed people may find it difficult to follow treatment plans, show up for clinic visits, and communicate with medical professionals. The development of drug-resistant TB strains, treatment failure, and relapse can all result from poor treatment adherence, making disease management even more difficult and negatively affecting mental health outcomes (Kendall et al., 2011). Benvinda and Bruno (2015) studied the emotional distress in Angolan patients with several types of tuberculosis. The study revealed that High levels of anxiety (38.3%), depression (49.4%), and emotional distress (44.4%) were found among TB patients. Factors like marital status, gender, type, and treatment of TB were associated with higher levels of emotional disorder. The study suggests the incorporation of mental health intervention in healthcare programs for TB patients to minimize suffering and reduce the impact of emotional distress on treatment. The study found high rates of anxiety, depression, and emotional distress among TB patients.

### 2.3 Factors influencing treatment adherence and retention in care among TB patients

Adherence to tuberculosis (TB) treatments is crucial for attaining excellent outcomes, including cure and prevention of medication resistance. However, multiple factors affect treatment adherence and retention in care among TB patients, spanning individual, societal, economic, and healthcare system dimensions. Understanding these variables is critical for devising effective interventions to help patients throughout their healthcare journey (World Health Organization, 2020). Ogwok et al. (2022) studied Factors Associated with Treatment Adherence of Patients on Anti-Tuberculosis Drugs Following Covid-19 Pandemic at Health Facilities of Masaka City, Uganda. They found that adherence to TB treatment was at 86% among patients in Masaka City, Uganda. Patients with adequate knowledge on TB treatment showed good adherence to medication. Factors affecting adherence included stigma, discrimination, and suspension of transport due to COVID-19 guidelines. Significant relationships were found between frequent counseling, good conduct of health workers, and patient adherence. Recommendations included assigning a family member and a village health team to each TB patient, intensifying health education, and involving TB survivors in treatment.

Individual characteristics play a crucial impact in determining treatment adherence among TB patients. Patients' assessment of the severity of TB and their comprehension of the disease's transmission, treatment length, and probable adverse effects influence their adherence behavior (Mathew et al., 2016). Additionally, psychological variables such as despair, anxiety, and stigma might impair treatment adherence. Patients experiencing mental distress or social isolation may experience difficulty in sticking to treatment regimens (Munro et al., 2013). Gurusinga (2023) conducted a study using TB patients to identify factors related with non-adherence to TB treatment at Tanjung Morawa Health Centre in Australia. The study focused on knowledge, occupational,

educational, and attitudinal aspects. It was discovered that education and attitude characteristics had a substantial correlation with non-compliance in tuberculosis therapy, underscoring the significance of patient education and support. The study stressed the importance of healthcare personnel in encouraging and reminding patients to follow their TB treatment regimens and suggested ongoing improvements in patient compliance for better recovery results.

Social and economic factors also exhibit major influence on treatment adherence among TB patients. Social support from family, friends, and community members can favorably improve adherence by offering encouragement and aid during the treatment process. Conversely, TB-related stigma and prejudice may deter patients from seeking care and declaring their diagnosis, leading to treatment avoidance or hiding of illness (Mathew et al., 2016).

Financial restrictions, such as poverty, unemployment, and transportation costs, provide significant hurdles to treatment adherence among TB patients. Patients may struggle to afford medication, clinic visits, or basic requirements throughout treatment, leading to treatment suspension or termination (World Health Organization, 2020).



### 2.4 The challenges of Tuberculosis Treatment

Globally, 85%, 76%, and 57% of patients who had RR/MDR-TB, HIV-associated TB, and new and relapsed TB, respectively, received effective treatment (Chakaya et al., 2021). These numbers show that the performance was not at its best. The main causes of the poor treatment results are low follow-up rates, poor treatment linkage, death, and inadequate evaluation (Chakaya et al., 2021). Unknown or additional drug resistance, inadequate support for TB patients to ensure high levels of adherence, inadequate systems for recording and reporting, and inadequate prevention and management of advanced HIV disease, including the provision of antiretroviral treatment, are among the root causes of poor treatment outcomes (Cegielski et al., 2014). Particular difficulties

for children include under-identification, insufficient documentation and reporting, inadequate drug formulation alternatives, insufficient carer availability or treatment capacity, and ongoing problems with stock out of the limited number of pharmacological options suitable for this population (Chakaya et al., 2021). Just 30% of the 3.5 million children treated for tuberculosis five-year target has been met by 2019, with just 8% of the 115,000 children treated for RR/MDR TB having received therapy. Inadequate data collection and improper, inconsistent disaggregation continue to have a detrimental impact on children under the age of 15 and adolescents aged 10 to 19, as well as on identification and treatment, programming, and resource allocation (Chakaya et al., 2021).

WHO now recommends that the shorter 9-month MDR-TB regimens be preferred as it achieves treatment success in roughly 80% of participants. This recommendation is based on observational studies conducted in Bangladesh and sub-Saharan Africa (Bulabula et al., 2019; Trébucq et al., 2018), which were confirmed by the results of the standardized treatment regimen of anti-TB drugs for people with MDR-TB (STREAM) Stage 1 trial. Moreover, a totally oral regimen incorporating bedaquiline (BDQ), one of the new and strong MDR-TB medications along with delamanid and pretomanid should take the place of second-line injectable treatments if possible. Along with point-of-care molecular drug susceptibility testing of second line MDR-TB medications, such regimens should be rapidly scaled up to improve outcomes, minimize side effects, and improve adherence(Cox et al., 2018; Diacon et al., 2014; Gler et al., 2012).

Moreover, there have been recent attempts to shorten the course of treatment for drug-susceptible tuberculosis by utilizing fluoroquinolones; however, the extensive clinical trials conducted in this regard did not prove effective in achieving a cure free of relapses (Grace et al., 2019).

Directly observed therapy (DOT), although its effectiveness in comparison to self-administered treatment has been questioned, has been a cornerstone of tuberculosis care and prevention to guarantee that TB treatment is given as prescribed (Volmink & Garner, 2007). Direct supervision of TB medication consumption, however, might place demands on the patient and the healthcare system that can be challenging to meet, as well as disempower the person receiving treatment. People with TB and their families are more likely to embrace a strategy that is centered on offering extensive and tailored care to those undergoing treatment for the disease, and it has also been linked to higher treatment completion rates (Alipanah et al., 2018). In addition, new approaches to treatment support in the digital age, such as interactive two-way text message reminders and video-assisted DOT, have been linked to high rates of treatment adherence and offer psychological support via remote counselling (Ngwatu et al., 2018).



**2.5 TB Patients' perspectives on the effectiveness and side effects of TB treatment**

Tuberculosis (TB) continues to be a significant health problem worldwide, with millions of new cases and a considerable number of deaths each year. Gaining insight into patients' viewpoints regarding the efficacy and adverse effects of tuberculosis (TB) treatment is essential for enhancing treatment compliance and overall health results. This literature review examines multiple research that have explored these viewpoints, emphasizing the intricacies and difficulties encountered by tuberculosis patients. Patients' evaluations of the efficacy of tuberculosis (TB) treatment are impacted by several aspects, such as the promptness of symptom alleviation, overall enhancement of health, and the length of the treatment regimen. According to research, patients tend to see tuberculosis treatment as beneficial when they observe significant changes in their health during the initial stages of the treatment regimen (Kigozi et al., 2017). A study conducted in Uganda revealed that patients who had rapid alleviation of symptoms such as coughing and weight loss

were more inclined to regard their therapy as efficacious and comply with the prescribed regimen (Kigozi et al., 2017). Nevertheless, the extended length of tuberculosis (TB) treatment frequently presents a difficulty for patients in perceiving its efficacy. The duration of tuberculosis therapy normally spans a minimum of six months, which might result in the development of treatment fatigue and uncertainty regarding its long-term effectiveness. A study conducted in Ethiopia found that patients experienced dissatisfaction with the protracted treatment procedure, despite recognising its indispensability for achieving full recuperation (Gebremariam et al., 2016). This frustration can have a detrimental effect on adherence, as patients may prematurely cease treatment if they experience improvement.

The side effects associated with TB treatment are a serious worry for patients and can considerably influence their treatment adherence. TB drugs, such as isoniazid, rifampicin, pyrazinamide, and ethambutol, are known to induce a range of side effects, including nausea, vomiting, joint pain, and liver toxicity (Taye et al., 2018). Patients' experiences with these side effects can vary greatly, compromising their willingness to continue with the prescribed regimen. A qualitative study in South Africa noted that the severity and persistence of adverse effects often lead patients to question the benefits of continued therapy (Schnippel et al., 2018). Participants reported feeling torn between the requirement of taking the drug and the discomfort caused by the adverse effects. This ambivalence often led in missed doses or full termination of treatment, underlining the necessity for adequate control of side effects. Patients' attitudes on TB therapy are also impacted by psychological factors, including stigma, support systems, and health literacy. TB is generally linked with severe stigma, which might influence patients' motivation to seek and adhere to treatment. Research in India indicated that patients who suffered social isolation and prejudice due

to their TB diagnosis were more likely to have poor evaluations of their treatment (Atre et al., 2011).

The stigma associated with TB can contribute to feelings of shame and dread, further affecting patients' treatment experiences. Support systems, including family, friends, and healthcare providers, have a vital role in shaping patients' attitudes and adherence to TB therapy. Research conducted in Nigeria indicated that patients who received emotional and practical support from their relatives were more likely to adhere to their treatment regimen and see it as effective (Olowookere et al., 2015). Conversely, the absence of support was associated with increased rates of non-adherence and poor impressions of treatment. Health literacy also strongly effects patients' opinions about TB therapy. Understanding the disease, its transmission, and the importance of finishing the treatment regimen can influence how patients see their treatment. A study in Pakistan revealed that patients with higher levels of health literacy were more likely to continue to therapy and regard it positively, despite experiencing side effects (Mushtaq et al., 2011). This research underlines the importance of patient education and counseling in TB treatment programs.



Healthcare-related issues, including the quality of healthcare services, patient-provider communication, and accessibility of therapy, also influence patients' opinions on TB treatment. The quality of healthcare services might affect patients' trust in the treatment regimen and their entire treatment experience. A study in Ghana indicated that patients who had favourable contacts with healthcare providers and got complete care were more likely to stick to their therapy and consider it as effective (Boateng et al., 2020). Patient-provider communication is crucial in resolving patients' concerns regarding TB therapy and controlling side effects. Effective communication can help create trust and provide patients with the information needed to understand the importance of adherence. Research in Kenya revealed that patients who felt their

concerns were listened to and handled by healthcare practitioners had more positive impressions of their treatment and were more likely to stick to it (Omondi et al., 2018). The accessibility of therapy, including the availability of medications and proximity to healthcare facilities, also effects patients' treatment experiences. A study in rural Tanzania indicated that patients who had to travel considerable distances to obtain TB treatment were more likely to report negative perceptions of the therapy and experience higher rates of non-adherence (Mkopi et al., 2012). Ensuring that TB treatment is accessible and comfortable for patients is critical for increasing adherence and treatment results. Patients adopt diverse coping techniques and rely on support systems to manage the obstacles associated with TB therapy. Coping methods, such as positive reframing, seeking social support, and spiritual activities, can assist patients negotiate the physical and mental demands of treatment. A study in Malawi indicated that patients who engaged in positive coping techniques, such as keeping optimism and seeking support from family and community, were more likely to adhere to their therapy and see it as beneficial (Chirwa et al., 2014). Support systems, including family, friends, and community networks, play a key part in patients' treatment experiences. Research in Vietnam indicated that patients who got high social support were more likely to adhere to their treatment regimen and handle the adverse effects well (Hoa et al., 2015). The presence of supporting connections can provide emotional comfort and practical aid, making it simpler for patients to stay dedicated to their therapy.



### 2.6 How patients navigate challenges and coping mechanisms in living with and managing TB disease

Tuberculosis (TB) remains one of the most frequent infectious diseases worldwide, providing enormous health, social, and economic challenges to people affected. Managing TB includes negotiating a complex treatment regimen and overcoming multiple hurdles to adherence. This

literature review analyses how patients with TB negotiate these hurdles and apply coping techniques to live with and treat the disease effectively. Adherence to TB therapy is crucial for achieving effective outcomes and limiting the development of drug-resistant strains. However, various variables can hamper adherence, including the extended treatment duration, side effects, and societal stigma associated with the disease. Patients often develop various techniques to stick to their treatment plan despite these limitations.

A study conducted in India found that patients who got extensive education regarding TB and its treatment were better suited to stick to their drug regimen (Munro et al., 2007). This instruction includes information about the necessity of completing the whole course of therapy, the probable adverse effects, and techniques to manage them. Patients who grasped the rationale for the treatment were more likely to adhere to it, underlining the importance of patient education in TB care.

Social support is another essential aspect impacting treatment adherence. Research in South Africa indicated that patients who had good support systems, including family and community support, were more likely to stick to their therapy (Kigozi et al., 2017). Support systems gave emotional encouragement, encouraged patients to take their medication, and aided with practical issues such as transportation to healthcare institutions. Conversely, patients who lacked social support reported higher rates of non-adherence and lower treatment outcomes. The adverse effects of TB drugs, including nausea, vomiting, joint pain, and liver toxicity, can be severe and deter patients from completing their therapy. Patients adopt various coping methods to manage these side effects and continue to their treatment plan. A qualitative study in Ethiopia evaluated how patients coped with the side effects of TB therapy (Gebremariam et al., 2016). Patients reported utilising traditional treatments, adjusting their diet, and seeking guidance from healthcare practitioners to alleviate

adverse effects. Some patients also engaged in positive self-talk and maintained a cheerful outlook, which helped them persevere through the hardest phases of treatment. These findings underline the necessity of managing side effects through patient education and supportive treatment to increase adherence.

TB is generally accompanied with severe social stigma, which can lead to isolation, prejudice, and unwillingness to seek treatment. Patients must overcome this stigma while managing their sickness, which needs both internal resilience and external support. Research in Pakistan showed the influence of societal stigma on TB patients (Mushtaq et al., 2011). Patients reported facing discrimination from their communities, which harmed their mental health and motivation to adhere to treatment. To cope with this stigma, some patients preferred to keep their diagnosis a secret, while others sought help from trusted family members and friends. The study stressed the need for community-based programmes to eliminate stigma and help patients in managing their disease openly. Economic variables can have a crucial effect in how patients navigate TB therapy. The financial impact of therapy, including transportation costs, lost income due to illness, and spending for nutritious meals, can be enormous. Patients often adopt numerous techniques to overcome these economic issues. A study in Vietnam addressed the economic obstacles experienced by TB patients and their coping techniques (Hoa et al., 2015). Patients reported borrowing money from family and friends, selling personal goods, and seeking financial aid from non-governmental groups to fund treatment-related expenses. Some patients also altered their job schedules to accommodate therapy appointments, although this often resulted in lost revenue. These findings underline the need for financial support programs to assist TB patients in managing the economic consequences of their disease.Living with TB can have a considerable psychological toll on patients, resulting to emotions of fear, worry, and sadness. Patients adopt numerous psychological

coping techniques to address these emotional obstacles and maintain their mental health. A study in Malawi explored the psychological coping methods employed by TB patients (Chirwa et al., 2014). Patients reported participating in positive reframing, focusing on the possibility of recovery, and keeping a strong spiritual faith. Some patients also participated in support groups where they could share their experiences and receive emotional support from others facing similar issues. These coping methods helped patients control their emotions and stay dedicated to their treatment.

The quality of healthcare services and patient-provider interactions considerably determine how patients navigate TB therapy. Positive contacts with healthcare practitioners can boost patients' trust in their therapy and encourage adherence. Research in Kenya stressed the importance of patient-provider communication in TB care (Omondi et al., 2018). Patients who felt that their healthcare professionals listened to their concerns, provided clear explanations, and showed empathy were more likely to adhere to their therapy and report favourable experiences. On the other side, patients who encountered poor communication and lack of support from healthcare personnel reported increased levels of irritation and non-adherence. Community and cultural views also play a vital role in moulding patients' experiences with TB therapy. In some cultures, traditional healing practices and beliefs about disease causation might impact patients' perceptions and adherence to treatment. A study in Nigeria evaluated the influence of cultural attitudes on TB treatment adherence (Olowookere et al., 2015). Patients stated that traditional beliefs regarding TB, such as the assumption that it was caused by supernatural forces, influenced their motivation to seek and adhere to modern treatment. Community leaders and traditional healers were recognised as crucial influencers who might either assist or impede patients' commitment to

therapy. The study underlined the need for culturally sensitive approaches that include community leaders and integrate traditional beliefs with biological techniques.

## 2.7 **Theoretical Framework**

The theoretical framework for investigating the experiences of tuberculosis (TB) patients at the Tamale Teaching Hospital blends numerous theories from health psychology, social determinants of health, and economic theories. This holistic approach will aid in understanding the complex repercussions of TB on patients' life, including social and economic ramifications, family relationships, employment, income, and social support networks.

The Health Belief Model (HBM) is essential in evaluating patients' beliefs and actions related to TB treatment. According to the HBM, individuals' health behaviors are impacted by their views of the severity of an illness, their susceptibility to it, the rewards of taking action, and the barriers to taking that action. Applying the HBM to TB patients helps in exploring how patients perceive the seriousness of TB and their vulnerability to its complications, their beliefs about the advantages of adhering to TB treatment regimens, and the challenges they face in accessing treatment, such as financial constraints, stigma, and transportation issues. Understanding these beliefs can drive actions targeted at increasing treatment adherence and health outcomes. Below are the constructs of the HBM.

*Perceived Susceptibility* – Patients' beliefs about their risk of developing or worsening TB.

*Perceived Severity* – How seriously they view the disease and its potential consequences.

*Perceived Benefits* – Beliefs about the effectiveness of TB treatment and health-seeking behaviors.

*Perceived Barriers* – Challenges patients face in accessing and adhering to treatment.

*Cues to Action* – Factors that trigger or motivate patients to seek care and continue treatment.

*Self-Efficacy* – Confidence in their ability to manage their condition and adhere to treatment.

The Social Determinants of Health (SDOH) framework stresses the impact of social, economic, and environmental factors on health outcomes. For TB patients, these variables include economic repercussions, family ties, employment and income, and social support networks. The direct and indirect costs involved with TB treatment, including medical fees, transportation costs, and lost income owing to the inability to work, can dramatically impair patients' capacity to stick to treatment and manage their disease efficiently. Family relationships play a vital influence in helping or impeding TB treatment. Family members may provide crucial emotional support and practical aid, but they may also endure stress and pressure owing to the patient's illness. TB can lead to job loss, diminished work capacity, and long-term economic hardship, limiting patients' ability to work and earn an income. The value of social support from friends, community members, and healthcare practitioners cannot be emphasized. Strong social networks can boost treatment adherence and improve health outcomes by offering emotional support and practical aid. Stress and Coping Theory, established by Lazarus and Folkman, provides a paradigm for understanding how individuals handle the psychological stress associated with chronic illness. This theory highlights the significance of cognitive assessment and coping techniques in determining health outcomes. Applying this idea to TB patients includes evaluating how individuals perceive and interpret their illness and its influence on their life. Patients' assessments of TB can influence their emotional responses and coping techniques. The precise actions and cognitive efforts patients use to handle the stress of living with TB can include problem-focused coping, such as seeking information and sticking to treatment, and emotion-focused coping, such as seeking social support and engaging in relaxation techniques. Understanding patients' coping

mechanisms can inform the development of psychological therapies to support TB patients in managing their disease.

Intersectionality Theory, created by Kimberlé Crenshaw, stresses how many social identities, including as gender, ethnicity, and socioeconomic class, intersect to impact individuals' experiences and outcomes. Applying this idea to TB patients includes analysing how intersecting identities influence their experiences with the disease and treatment. Gender roles and expectations can affect TB patients' access to care, support networks, and treatment adherence. For example, women may encounter greater caregiving responsibilities that impair their capacity to prioritize their own health. Patients from lower socioeconomic backgrounds may suffer larger financial challenges to receiving care and sustaining medication adherence. Cultural beliefs and practices can influence patients' perceptions of TB and their desire to seek and adhere to treatment. Understanding the cultural background is vital for planning culturally responsive treatments. The Theory of Planned Behavior (TPB) describes how individuals' attitudes, subjective norms, and perceived behavioral control influence their intents and acts. Applying the TPB to TB patients involves exploring patients' attitudes towards TB treatment, including their beliefs about its effectiveness and potential side effects, the influence of social norms and expectations on patients' treatment behaviors, and patients' perceptions of their ability to adhere to TB treatment. Factors influencing perceived control include access to healthcare, transportation, financial resources, and social support. Understanding these aspects might influence methods to boost patients' motivation and capacity to adhere to therapy.

Integrating these theoretical approaches provides a comprehensive framework for evaluating the experiences of TB patients at the Tamale Teaching Hospital. The Health Belief Model underlines the role of patients' perceptions in affecting health habits. The Social Determinants of Health



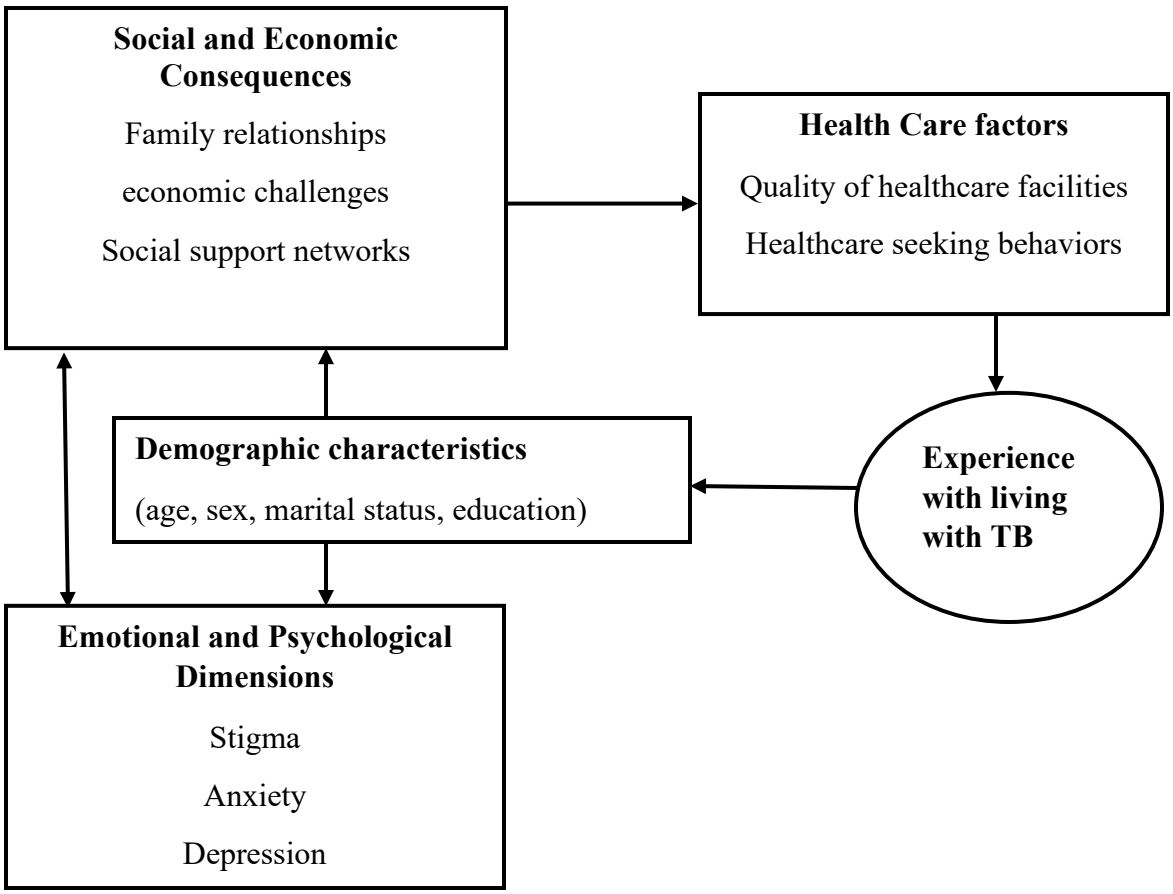
framework stresses the impact of social and economic factors on health outcomes. Stress and Coping Theory provides insights into patients' psychological responses to TB and their coping mechanisms. Intersectionality Theory underlines the relevance of recognizing numerous social identities in interpreting patients' experiences. The Theory of Planned Behavior elucidates the role of attitudes, norms, and perceived control in determining health behaviors.

Together, these ideas give a firm foundation for understanding the varied and multifaceted experiences of TB patients. They underline the necessity for interdisciplinary and multi-level therapies that address the unique problems and strengths of TB patients. By utilising this theoretical framework, researchers may better design studies and treatments to improve the health and well-being of TB patients at the Tamale Teaching Hospital. This comprehensive approach guarantees that all significant aspects influencing TB patients' experiences are evaluated, leading to more effective and focused health interventions.



### 2.8 Conceptual Framework

As stated by Reidel and Ramey (1987), a conceptual framework refers to a compilation of overarching concepts and guiding principles derived from relevant disciplines of study. It is employed to structure and organize forthcoming presentations. The schematic diagrams below not only will serve as a study guide but will also highlight how the major study variables are related to one another.




Source: Researcher's Constructs, (2023)

# CHAPTER THREE

# METHODOLOGY

## 3.1 Introduction to the Methods

This is the road map for accomplishing the goal and objectives of this research. It encompasses the study design, the designated study area, the identified population to be studied, the estimation of sample size, the chosen sampling method, the tools for collecting data, the approach to data analysis, inclusion and exclusion criteria, and ethical considerations.



### 3.2.1 Background to the Study Area: The Tamale Metropolis

The research was carried out in Tamale Metropolis, which functions as the regional capital of the Northern Region. It is one of the 26 MMDCs within the Northern Region, strategically situated in the region's centre. It shares borders with the Sagnarigu Municipal to the North-West, Mion District to the East, East Gonja to the South, and Central Gonja to the South-West. Tamale has a total approximated land size of 646.9 square kilometres, as reported in the 2021 Population and Housing Census (PHC Report). Geographically, the Metropolis is positioned between latitude 9º16 and 9º34 North and longitudes 0º36 and 0º57 West. The Metropolis consists of a total of 116 communities, with 35% classified as urban, 13% as peri-urban, and 52% as rural, according to the Tamale Metro Annual Report of 2020.

In urban Tamale, there exists ethnic diversity, although the Dagomba's make up nearly 80% of the total population. Islam is the predominant religion in the Metropolis, with approximately 84% of the population adhering to it. Christians make up 13.6%, with Catholics comprising 43.7% of this group. Traditional worshipers constitute about 1.6%, while other religious affiliations account for less than 1%, as per the data from the Ghana Statistical Service in 2021.

### 3.2.2 Justification for Choice of Study Area

The Tamale Teaching Hospital, located in Tamale in the Northern region of Ghana, operates as a regional hospital and functions as a referral centre for the three northern regions of the country. It collaborates closely with the University for Development Studies (UDS) in Northern Ghana to offer both undergraduate and graduate programs in medicine, nursing, and nutrition. Listed as the third teaching hospital in Ghana, in the wake of Korle Bu Teaching Hospital and the Komfo Anokye Teaching Hospital, the institution was initially constituted in 1974 under the name Tamale Regional Hospital. Its principal objective was to provide a wide range of healthcare services to the inhabitants of the Northern, Upper East, and Upper West regions of Ghana.

In 2005, the Northern Regional Coordinating Council, in conjunction with the Ghana Health Service, decided to grant the hospital the designation of teaching hospital. This advancement positioned the hospital as the third teaching hospital in the country, with the aim of facilitating the training of health professionals affiliated with the University of Development Studies, Tamale (U.D.S). As a teaching hospital, TTH boasts a well-established healthcare infrastructure, encompassing diagnostic facilities, treatment options, and support services, and act as a point of referral for TB in the region.

### 3.3 Study Setting

The setting of the study was the Tamale Teaching Hospital (TTH). TTH was first commissioned in 1974 as a regional referral centre for specialist medical care and for training of medical personnel. In actual fact, it was both relocation and a decongestion of the erstwhile Tamale General Hospital then situated in the central Tamale community of Tishigu. From the late 1990s, the hospital grew rapidly in status and size as plans advanced to build a third medical school, School

of Medicine &Health Sciences of the University for Development Studies (SMHS-UDS) in the country to which it would eventually be affiliated.

The hospital was recognized as a teaching hospital in 2006 and the SMHS-UDS admitted its pioneering medical student group in the same year. The students had to be sent to the KATH and KBTH to continue the medical studies owing to the poor state of infrastructure and the lack of requisite medical personnel that rendered the TTH ill prepared to take the task and execute the mandate of a teaching hospital. Between 2006 and 2009, concerted efforts on the part of government and all major stakeholders ensured that the hospital received the much-needed attention and thus resulted in the expansion, renovation and equipment project. As a result, the hospital was able to support medical instruction and the medical students returned. The SMHS-UDS has a unique teaching approach of Problem Based Learning (PBL).

The hospital is divided into various departments or units, comprising both permanent and non-permanent staff members. This workforce encompasses a range of professionals, including hospital administrators, medical doctors, physician assistants, medical laboratory technicians, nurses, midwives, community health nurses, orderlies, record keepers, and pharmacists. The Day -to day administration of the hospital is overseen by the Chief Executive Officer supported by the Directors of Medical Affairs, Administration, Pharmacy, Finance, Nursing and Finance. For the purposes of decentralization effectiveness and efficiency the hospital's core mandate is executed by 11 sub–Budget Management Centers (Sub BMCs) and over 40 Departments and Units

### 3.4 Study Design

A qualitative research approach was used to investigate the lived experiences of people with TB in the Tamale Teaching Hospital, taking into account the concerns that this study aimed to address. The study employs Phenomenological Research Design to allow the researcher to describe participants' lived experiences concerning TB patients in the Tamale Teaching Hospital.

Phenomenological research design is focused on exploring and understanding the human experiences. This method aims to take information from the participants' own narrations and experiences, capturing their perceptions and emotions regarding a particular situation. In the context of investigating the lived experiences of TB patients in the TTH, phenomenological research design is particularly suitable. This method allows researchers to gain insights into the personal and lived experiences of these patients, providing a rich, nuanced understanding of the influence of TB on their lives.

Phenomenology is centered on understanding the lived experiences of individuals and groups of people. Hence, TB is a deeply personal and emotional experience, and phenomenology can capture the complexities and nuances of how TB in the TTH experience and make sense of this event.

Phenomenological research seeks to uncover the meanings that individuals assign to their experiences. This is crucial for understanding how women interpret their miscarriage experiences within their culture, social, and personal contexts of the TTH environment. This approach allows for the collection of rich, detailed data through in-depth interviews and other qualitative methods. This depth of information is essential for understanding the full stories of TB lives, including their emotional responses, coping mechanisms, and the support systems they utilize.



Creswell (2014), asserts that a description offered by the researcher in a phenomenological study "culminates in the essence of the experiences for several individuals who have all experienced the phenomenon." Thus, the researcher will, from the participants' perspective, describe the lived experiences of people who suffer TB in the TTH.



Van Manen (2016) and Lester (1999) also asserted that the use of phenomenological design is hinged on a subjectivity and paradigm of personal knowledge and highlights the significance The literature suggests that this study strategy is the best one for studying social and human problems that affect the entire population or a subset of the society (Thorogood & Green, 2018). In nursing and clinical research, the descriptive phenomenology design is frequently used to investigate and characterize people's experiences connected to a specific medical result or condition (Shorey & Ng, 2022). Setting aside the researchers' preconceived beliefs or assumptions about the phenomenon, the design investigates human experience within the limits of daily life (Neubauer et al., 2019). Considering the prospects of this design together with the study aims, the present study adopted the phenomenology design to explore the lived experiences of TB patients.

### 3.5 Study Population

The study population consists solely of tuberculosis (TB) patients receiving treatment at the Tamale Teaching Hospital. The focus is on their lived experiences, perceptions of care, and coping mechanisms while undergoing treatment.

#### 3.5.1 Inclusion Criteria

1. Patients are diagnosed with TB and currently receiving treatment at Tamale Teaching Hospital.
2. Patients who have been on TB treatment for at least one month to ensure they have experienced aspects of care and treatment.

3. Patients who are willing and able to provide informed consent to participate in the study.

### 3.5.2 Exclusion Criteria

1. TB patients who are critically ill and unable to participate in an interview.
2. TB patients who decline to provide informed consent.



## 3.6 Data Collection Tools

The primary data collection tool for this study was a **semi-structured interview guide**. The interview guide was carefully designed to explore the lived experiences of TB patients at Tamale Teaching Hospital. It included open-ended questions that allowed participants to narrate their experiences with TB, the challenges they faced, and the coping mechanisms they adopted. The interview guide was developed based on key themes identified from the literature, including psychosocial challenges, economic burdens, adherence to treatment, and perceptions of healthcare services.

The interview guide was pretested on a small group of TB patients outside the study area to ensure clarity and appropriateness of the questions. Adjustments were made based on participant feedback to refine the wording of questions and improve data collection efficiency. The final version of the guide included probes to encourage detailed responses and ensure that all relevant aspects of the research objectives were explored.

## 3.7 Data Collection Methods

### 3.7.1 Sampling Procedure

Participants were selected using **purposive sampling**, a non-probability sampling technique commonly used in qualitative research. This method allowed the researcher to deliberately select TB patients who could provide rich, relevant, and diverse insights into the study topic. Selection

criteria ensured that participants had been on TB treatment for at least one month to allow for sufficient experience with the disease and treatment process.

### 3.7.2 Data Collection Procedure

Data collection involved in-depth face-to-face interviews, conducted in a private and comfortable setting at Tamale Teaching Hospital to ensure confidentiality. The interviews were conducted in the preferred language of the participants (English or a local language), with a trained interpreter assisting when necessary. Each interview lasted approximately 30 to 45 minutes and was audio-recorded with the consent of the participants. Field notes were also taken to capture non-verbal cues and additional observations.

To ensure consistency and reliability in data collection, the researcher personally conducted all interviews using the semi-structured interview guide. After each interview, data were transcribed verbatim and translated into English for analysis. Participants were given the opportunity to review and clarify their responses where necessary.

### 3.11 Data Quality Control

Ensuring quality control in qualitative research is essential to maintain the credibility, reliability, and objectivity of the findings. In this study, the following strategies were employed to enhance credibility, transferability, dependability, and confirmability:

**Credibility**

To ensure the credibility of the findings, the researcher engaged in prolonged engagement with participants to build trust and gain deeper insights into their lived experiences. Triangulation was applied by using multiple sources of data, including in-depth interviews and field observations, to validate the findings. Member checking was conducted by allowing participants to review and confirm the accuracy of the transcribed interviews, ensuring that their perspectives were correctly

represented. Additionally, reflexivity was practiced by continuously reflecting on the researcher's role, biases, and assumptions to minimize subjectivity.

**Transferability**

Transferability concerns the extent to which the study's findings can be applied to other settings. To enhance transferability, thick descriptions were provided, including detailed accounts of the research context, participants' backgrounds, and the socio-cultural environment of TB patients at Tamale Teaching Hospital. The findings were contextualized historically, socially, and culturally, ensuring that they accurately reflect the lived realities of TB patients and could inform similar studies in other resource-limited settings.

**Dependability**

Dependability was ensured by maintaining clear and systematic documentation of the research process. This included detailing the steps taken in data collection, transcription, translation, and thematic analysis to allow for auditability and replication. The research process was rigorously reviewed, and peer debriefing sessions were conducted with colleagues and supervisors to validate interpretations and enhance the reliability of findings.



**Confirmability**

To establish confirmability, efforts were made to ensure that the study's findings were neutral and free from researcher bias. A research audit trail was maintained, documenting decisions made during data collection and analysis. Reflexivity was practiced by critically examining the researcher's influence on the study and being aware of potential biases. Additionally, dialogue reasoning was applied, where alternative interpretations were explored to strengthen the objectivity of the results.

**Strength of the Study**

Sampling bias may arise from disparities between the population studied by the investigator and the actual population examined through the sampling method (Pannucci & Wilkins, 2010). To mitigate prejudice in the sampling methodology, purposive sampling was used to select a diverse group of TB patients, ensuring representation across various demographic and treatment outcome categories. Semi-structured interviews served as the primary method of data collection, allowing for an in-depth exploration of participants' perceptions, challenges, and coping mechanisms related to TB and its treatment.

The researcher conducted follow-ups to verify if participants differed from the actual population, addressing issues such as participant absence by substituting them with other qualified respondents. In instances of high non-response rates, efforts were made to understand how lack of response might have impacted the outcome.

Data analysis bias occurs when primary data are transformed into incorrect research findings. This potential bias was minimized by inputting the data into Microsoft Excel and exporting it to SPSS for analysis. Understanding all the statistical techniques used on the primary study data in detail before formulating questions in the questionnaire further reduced data analysis bias.



**3.12 Ethical Consideration**

Approval to carry out the research was sought from the ethical and review committee of the Tamale Teaching Hospital to ensure adherence to ethical standards. Furthermore, before data collection, I introduced myself and elucidated the study's objectives to the respondents at any stage of the interview. Each participant provided both verbal and written consent. Strict confidentiality measures were applied to safeguard the treated information.

### 3.13 Informed consent

Before responding to the questionnaire, consent forms were made available for respondents to sign. The consent form explicitly conveyed that participation in the research was entirely voluntary, and individuals had the option to refrain from answering if they found the questions to be intimidating or uncomfortable. Participants were assured that they could choose to partake or decline from the study without facing any form of punishment.

### 3.14 Data Analysis Plan

The data collected from the in-depth interviews were analyzed using thematic analysis, a qualitative research method that identifies patterns and themes within the data. Thematic analysis was chosen because it allows for an in-depth exploration of the lived experiences of TB patients and provides a structured approach to interpreting their perspectives.

The analysis process began with data familiarization, where the researcher transcribed all interviews verbatim and carefully read through the transcripts multiple times to gain a deep understanding of the data. Audio recordings were replayed to ensure accuracy in transcription, and field notes were incorporated to capture non-verbal cues and contextual information. This process helped the researchers to immerse themselves in the data and identify recurring ideas.

Next, the researcher engaged in coding, where meaningful segments of text were identified and labeled based on participants' narratives. An open coding approach was used, allowing codes to emerge from the data rather than being predetermined. Coding was initially done manually and later refined using qualitative analysis software to ensure consistency and organization.

Following the coding process, the researcher moved on to theme identification, where related codes were grouped into broader themes that captured key aspects of TB patients' experiences. This stage involved an iterative process of comparing different codes and refining emerging

themes to ensure they accurately represented the perspectives of participants. The themes were reviewed against the original data to confirm their relevance and coherence, and any overlapping or redundant themes were merged or refined.

Once the themes were finalized, they were defined and named in a way that clearly captured their essence. Sub-themes were also identified to provide a deeper understanding of specific aspects within the broader themes. These themes were then systematically presented in the findings, with direct quotations from participants used to support interpretations and ensure that their voices were authentically represented.

To enhance trustworthiness, several validation techniques were employed. Peer debriefing was conducted with colleagues and supervisors to review the coding framework and ensure the accuracy of them development. Additionally, member checking was carried out, where selected participants reviewed the findings to confirm that their perspectives were accurately captured.



# CHAPTER FOUR

# RESULTS OF THE STUDY

## 4.1 Introduction



This chapter is organized into sections that reflect key themes emerging from the data collected from the twelve (12) respondents used for the study. The participants were selected using the maximum variation method to ensure a diverse representation from various stages of TB treatment. The study selected an exploratory-descriptive qualitative method, involving the conduct and recording of interviews. The collected data underwent organization, with multiple transcriptions created. These transcriptions were subsequently coded by highlighting relevant phrases related to the topic investigated. The data that was highlighted was then grouped based on the assigned codes to provide a succinct summary of the fundamental subjects recurring all over the narratives. Subsequent to the narratives, themes were derived by identifying patterns within the codes. These themes were then scrutinized to validate their precise portrayal of the participants' narratives. Finally, the emergent themes were characterized by elaborating on their significance in terms of the data set.

First, the chapter presents the demographic characteristics of the participants, and work profile of the respondents, their knowledge level of TB, their living experiences with TB including, Psychological, social, economic and risk factors of TB patients followed by an exploration of the participants' perceptions of their health status and the impact of tuberculosis on their daily lives. Additionally, we delve into their experiences with the healthcare system, treatment adherence, and the social support networks that shape their journey. The richness of the qualitative data provides an opportunity for a nuanced discussion that goes beyond mere presentation of facts. Our aim is to

critically examine the implications of these findings, drawing connections between the narratives of patients and the broader landscape of tuberculosis care. Through this discussion, we aspire to inform healthcare policies, improve patient-centered care, and contribute to the ongoing dialogue on enhancing the quality of life for individuals affected by tuberculosis.



### 4.2 Socio-Demographic Features of Respondent

The socio-demographic features encompassed variables such as the age group, gender, and educational qualifications of the respondents. Additionally, data regarding the respondents' occupations and the duration since the diagnosis of the patient's condition were collected. Despite these variables not being primary objectives of the study, information was sought on them due to their potential influence on the study's outcomes. In other words, data on these variables was gathered to explore the relationship between them and the research's primary objectives

***Table 1 Socio-demographic characteristics of respondents***

| *cipant* | *Age (in years)* | *Sex* | *Marital Status* | *Qualification* | *Occupation* |
|---|---|---|---|---|---|
| 1 | 27 | M | Single | SSSCE | Farmer |
| 2 | 32 | F | Married | SSSCE | Trader |
| 3 | 28 | M | Single | HND | Poultry Farmer |
| 4 | 29 | M | Widow | Bachelors | Accountant |
| 5 | 45 | M | Single | HND | Metal Works |
| 6 | 37 | F | Married | SSSCE | Trader |
| 7 | 26 | F | Married | Bachelors | Teacher |
| 8 | 39 | M | Married | Bachelors | Businessman |
| 9 | 34 | M | Single | SSSCE | Galamsay Miner |

| | | | | | |
|---|---|---|---|---|---|
| 10 | 30 | M | Married | SSSCE | Driver |
| 11 | 31 | M | Divorced | Bachelors | Security Guard |
| 12 | 28 | M | Married | HND | Shop Attendant |

Field Survey, (2023)

Most respondents who participated in the study were males (n = 8/12). The majority of individuals are in their late 20s or early 30s (n=10/12), the results show that respondents are with different levels of education, ranging from SSSCE (Senior Secondary School Certificate Examination) with (n = 5/12), HND (Higher National Diploma) with frequency of (n = 3/12) and Bachelors (n = 4/8), it is evident that, educational background might affect patients' understanding of the disease, its mode of transmissions, diagnosis, prevention and treatment. In terms of occupation, the results show farmer, trader, poultry farmer, accountant, metal works, teacher, businessman, and shop attendant are the major occupations of the participants. Occupation can influence the daily lives of individuals with tuberculosis, affecting factors such as income, workplace conditions, and access to healthcare. Marital of respondents' status varies, including individuals who are single, married, and divorce. Marital status can impact the social support available to individuals dealing with tuberculosis and may influence their overall experience. Furthermore, there is one individual who is a widow and another who is divorced. Being widowed or divorced may bring additional social and emotional challenges to the experience of living with tuberculosis. Table 1 shows the socio-demographic profiles of respondents.

**Themes and sub-themes of the study**

Analysis of respondents' experiences gave rise to four major themes and a total of ten sub-themes which are presented in the Table 2 below:

*Table 2: Themes and sub-themes*

| Themes | Sub-themes |
|---|---|
| **The lived experiences of TB patients at the Tamale Teaching Hospital** | Patient's reaction after being diagnosed of TB |
| | Experience of stigma or discrimination |
| **Psychosocial, economic, and healthcare-related factors influencing TB patients** | Economic challenges |
| | Psychosocial consequences |
| | Difficulty coping with medical guidelines on TB |
| **How TB patients navigate challenges and coping mechanisms** | Financial support from friends and family |
| | Support from healthcare professionals |
| **Patients Perspectives on the Effectiveness and side effects of TB treatment** | Patients' awareness/knowledge of TB |
| | Respondents' perceptions about TB treatment |
| | Challenges with TB drugs |



### 4.2 The lived experiences of TB patients at the Tamale Teaching Hospital

The lived experiences of the patients were assessed and each of them gave a narration of how the condition started. They went further to narrate the experience they are going through following the genesis of their condition. Based on this, the following subthemes emerged: how they got diagnosed of the condition and their reaction after being diagnosed of TB, and experiences (stigma or discrimination) they went through following their diagnosis.

**Patients' reaction after being diagnosed of TB**

Participants were asked about their initial reactions and feelings after they first received tuberculosis diagnosis. It came to most of them as a very big surprise as they never expected to fall victim to such an illness. Some of them were scared and thinking that it could be the end of their life while a section of them were thinking about the possibility of infecting other members of their families. Statements made by the clients are reported below:

> "*Initially, I felt scared and uncertain about how to manage this condition. Sincerely speaking, I initially felt confused and uncertain about how to cope with the diagnosis. I also felt anxious and overwhelmed by the diagnosis"* (Participant 5).

> "*Eiih madam, this was really tough for me. Initially, I felt shocked and scared upon receiving my diagnosis. I was really concern about the potential spread of the disease to my family and friends because I coughed for weeks before going to the hospital"* (Participant 2).

> *"This was truly a tough experience for me. Initially, the shock and fear I felt upon learning of my diagnosis were overwhelming. I was particularly concerned about the possibility of the disease spreading to my family and friends, given that I had been coughing for weeks before finally seeking medical attention at the hospital"* (Participant 7).

> *"At first, I experienced feelings of fear and uncertainty regarding how to manage this condition. To be honest, my initial reaction was one of confusion and uncertainty about how to navigate the diagnosis. Additionally, I felt a sense of anxiety and being overwhelmed by the situation"* (Participant 10).

**Experience of stigma or discrimination**

Findings indicated that majority of the TB patients face some forms of stigma and discrimination at a point in time during their plight. Some of these experiences were direct and others were indirect. Take into consideration the following testimonies given by two of the study respondents:

> *"Since I was diagnosed of TB, people I used to live with were not happy to be in the same room or area with me. I was abandoned like a piece of rug. Some of my friends and neighbors were treatment me like an animal"* (Participant 1).
>
> *"When I was diagnosed of TB, I took a sick leave from work for about 3 weeks. When I reported to work after the leave, what I observed in my office was a total discrimination not just to me but to every sick person. The moment I entered the office on the first day, they started living one-by-one. Hmmmm, I really had a terrible feeling about them"* (Participant 12).



Despite the stigma and discrimination experienced by some TB patients, a number of them reported that they lived peacefully with their close friends and neighbors and never suffered any discrimination. This can be traced in the transcripts below:

> *"No no no, none at all, my family have really been supportive and the nurses at this center are caring and give us our medication and everything, I haven't experienced any stigma or discrimination from anyone"* (Participant 4).
>
> *"No madam, I cannot remember of a stigmatization from anyone. My wife and kids are isolated from me but they still show me love. The health professionals here are good go to*

*us and the in-charge is really strict on all the nurses to nice to us and give us the best care possible"* (Participant 5).

*"No, not at all. My family has been incredibly supportive, and the nurses at this center are caring and provide us with our medication and everything we need. I haven't encountered any stigma or discrimination from anyone"* (Participant 8).



### 4.3 Psychosocial, economic, and healthcare-related factors influencing TB patients

The researcher sought to investigate the social and economic impacts of TB on patients. From the analysis of participants' inputs, three sub-themes emerged: economic challenges, social consequences, and difficulty adhering to medical advice.

#### Economic challenges

The study respondents were reported to have faced diverse economic difficulties due to their illness. Many of them were not able to engage in any income generating activity due to the restrictions posed by the condition. To some extent, the high cost of TB medications coupled with high transport fares to and from the hospital further aggravated their economic plight. Below were some of the statements the patients reported regarding their economic experiences after being diagnosed of TB:

***"****Because I have been cautioned distance myself from people, I have not been able to go work again. Hmmm, madam, it hasn't been that easy and even some of the drugs are very costly"* (Participant 1).

*"eiih, and some of drugs are really very expense. In fact, me and family are already struggle to make ends meet. So, it has not been easy for me. But what can I say, I thank God for the*

*grace so far. I'm improving daily. My office hasn't provided any financial assistance oooh. But my family members are supporting small"* (Participant 3).

A 39 year old client narrated hos economic experience as follows:

*"The cost of some medications is quite high, and my family and I are already struggling to make ends meet. It's been a difficult situation, but I am thankful for God's grace as I am improving daily. Unfortunately, my office hasn't provided any financial assistance. However, my family members are offering some support, albeit in smaller amounts"* (Participant 8).

Notwithstanding the financial difficulties reported by many of the respondents, a 34 year old man explained that the condition has not affected his income. The client further highlighted that he gets support from close relatives and for that matter do not really feel the burden of the condition:

"*Certainly, My sister. I don't have much to share, but the TB diagnosis and treatment have not had a substantial impact on my social relationships or employment status. Nevertheless, I've had to allocate more money than usual for medication and transportation. But all the same, I have been getting financial support from my family members and close friends which makes me feels somehow better financially*" (Participant 9).

**Psychosocial consequences**

The participants provided insights into how TB has affected their social relationships, including interactions with family, friends, and the community. These were what they had to say;

"*Eiih madam, hmmm, this disease has significantly impacted my social relationships. I have to isolate myself from my family and friends since I was diagnosed which has been*

*very challenging. This has brought some tension in our relationship (marriage) as we struggle to balance my health needs with our daily routines"* (Participant 1).

"*Oh, my sister, hmm, the diagnosis and treatment of this illness have greatly influenced my social connections. I've had to distance myself from my family and friends for an extended period, which has been quite difficult. It also affects my wife and children as they need to care for me while avoiding contact with others. This has caused some strain in our relationships as we try to manage my health requirements alongside our daily responsibilities"* (Participant 6).

In addition, the diagnosis of TB has further affected respondents' ability to take part in congregational worships as well as participate in social gatherings such as weddings and naming ceremonies. One respondent lamented that:

*"Hmmmm, don't mention madam. Since the day I was confirmed positive for TB, I have stopped going to the mosque. Even attending naming ceremonies have become a problem. I just have to be living indoors: no one comes to me neither can I go to anyone"* (Participant 6).

**Difficulty coping with medical guidelines on TB**

The medical recommendation to keep a distance from people was a big challenge to some of the respondents. A number of them mentioned that they live in a single room with their families making it difficult to abide by the medical advice on social distancing. These are some of the reports given by the clients:

*"I live in a small house with my wife and children, which is overcrowded. This has made it difficult to follow the isolation guidelines recommended by the hospital, as there is no separate room for me to stay in"* (Participant 12).

*"I have three children currently and I live with them including my wife in a single room. Because of this, it has been very challenging to adhere to the isolation guidelines recommended by the hospital as there isn't a separate room for me"* (Participant 8).



### 4.4 How TB patients navigate challenges and coping mechanisms

Giving the several challenges faced by people living with TB, the study explored how patients navigate those challenges and the coping mechanisms they employ in living with and managing the condition. In all, three sub-themes emerged under this heading: Financial support from family and friends, support from healthcare professionals, and emotional support from friends and family.

#### Financial support from friends and family

Not a single patient interviewed in this study reported being able to pay for their TB treatment on their own. Nearly all of them admitted to depending on their family in one way or another, whether it was for unofficial financial transfers in the form of loans or gifts or for providing care and replacement labor. According to one participant:

*"Actually, my family have been so supportive throughout this time. As I told you earlier, I lost my job due to this condition and if not for the support I get from my family, I don't think I would have been alive up to this time. Almost every month, I receive some token from my siblings which I use to support my treatment"* (Participant 5).

*"My family have been supportive. My mother in-law wakes up early to prepare the children for school. She assists me in my household chores and sometimes even wash my clothing" (Participant 2).*

Also, some of the respondents stated that they supported their treatment with money they borrowed from their friends.

*"Madam, you know that it is not easy to lend a person money these days due to trust issues. But thanks to my friends, they have a strong trust in me. Anytime I call any of them for money, they don't hesitate to respond to me. Even in some situations, some of them will even tell me not to pay back. I am really grateful for the love they have shown me"* (Participant 1).

**Support from healthcare professionals**

Treatment of TB patients in this study was characterized by positive experience with nurses and doctors. Findings of this study indicated that the patients experienced a lot of support from and care form the healthcare professionals. The following quotes are testimonies given by some respondents regarding their interactions with the professionals:

*"The healthcare providers here are good people and very supportive. They treat us like their own and seem to understand our culture. They are very polite and always motivate us to take our drugs"* (Participant 7).

*"Well madam, the nurses try their best for us by giving us information about the medication regimen and instructions on managing side effects. They also provide nutritional advice and counseling on lifestyle changes to improve our overall health" (Participant 2).*

The respondents were also happy about the level of professionalism demonstrated by some of the nurses and doctors at the TB clinic.

> *"They (nurses and doctors) are always ready to listen to us. Anytime I come for my medications, they speak to me politely and always make sure that all my concerns are addressed before leaving the facility"* (Participant 3).

One 37-year-old woman commented that the support she receives from the nurses is what is keeping her stick to the treatment regimen.

> *"Hamm, madam, if not for the support and encouragement given by the nurses, I don't think I could have followed the treatment regimen. They are always open and friendly"* (Participant 6).



**4.5 Patients' perspectives on the effectiveness and side effects of TB treatment**

This aspect of the study was conducted on three main questions; knowledge level on the condition, perceptions of treatment effectiveness and side effects and advice and insights for others facing TB diagnosis. That is, three sub-themes emerged under this theme: knowledge on TB, patients' perceptions about TB treatment, side effects encountered due to treatment, and patents' advice/recommendation for others.

**Patients' awareness/knowledge of TB**

When participants' knowledge level on TB was assessed, a section of them demonstrated adequate knowledge of the condition. According to their reports, some of them were aware of the condition even before they were diagnosed. Television and health centers were the main sources of

information for patients who demonstrated good knowledge of the condition. Quotes of patients' remarks are as follows:

> *"Oooooh for me, I knew about TB before my diagnosis. There used to be an advert on TV about. Tuberculosis is a curable disease, visits your nearest hospital for free treatment, if you have TB. So, when I was informed, I had TB, I was not so worried because it can be treated. But I had to stop drinking and smoking which was difficult"* (Participant 3).

> ''*I was aware of TB before, but it never crossed my mind that it could be the cause of my concerns until I was diagnosed"* (Participant 7).

> ''*Oh, in my case, I was already aware of TB before my diagnosis. There used to be a TV advert about it. "Tuberculosis is a curable disease; visit your nearest hospital for free treatment if you have TB." So, when I was informed that I had TB, I wasn't overly concerned because I knew it could be treated"* (Participant 8).

Furthermore, some respondents were able to mention some common signs and symptoms associated with the condition as follows:

> *"…The symptoms seemed similar to those of catarrh and cough, and initially, I thought it was just a common cold* (Participant 7)".

> *"Most of the symptoms were like those of catarrh and cough and I told it was common cold"* (Participant 2).

That notwithstanding, a number of the participants mentioned that they never heard of tuberculosis until when they were diagnosed. A 37-year-old woman lamented her lack of knowledge of the

condition emphasizing that if she knew about it earlier, shoe could all possible means to prevent it:

> "*Sincerely speaking I did not know about TB.it was when I was taken to the Tema general hospital and diagnosed that they told me it was serious disease and if not treated early can kill me. Hmmmm madam, if I knew this disease earlier, I could try all possible best to prevent it"* (Participant 6).

**Respondents' perceptions about TB treatment**

Again, when participants were asked about how they perceive the effectiveness of the tuberculosis treatment they are receiving, these were what they had to say;

> "*The treatment is incredibly effective, my sister. We are truly thankful for the support provided by the nurses here"* (Participant 10).

> "*I am very happy with the treatment so far and I have seen a massive improvement in my condition since I started taking it*" (Participant 12).

Some of the respondents went a little further to narrate how the TB treatment has aided them in improving their breathing pattern:

> "*Yes, my daughter, I am pleased with the treatment progress. Initially, I struggled to breathe and needed oxygen, but now I no longer require it, which is a significant improvement*" (Participant 5).

> *"Yes madam, I am happy about the treatment so far. When I came, I couldn't breathe well and was on oxygen but now I am not and that is massive improvement"* (Participant 3).

**Challenges with TB drugs**

Moreover, the nature of the challenges/side effects encountered by respondents during the course of taking the TB medications were also explored in this arm of the study. When they were asked if they have experienced any side effects from their tuberculosis medications, almost all of them responded in affirmation. Meanwhile, the common side effects reported by the study respondents were: fatigue and nausea. A detail narration of their responses are highlighted in the transcripts below:

> "*Hmmm madam, yes. As for the side effects, I think we all experience it just that the way we feel about it may be different. For me, I sometimes feel like vomiting, feeling of tiredness and stress"* (Participant 4).

> "*Yes, sister, I am dealing with side effects such as weakness, tiredness, and the challenge of consistently being on medication*" (Participant 10).

> *"Madam, I experiencing side effects. I always feel like vomiting, dizziness, and fatigue. Is not been easy at all but what can we do? (e rhetorical question)"* (Participant 1).

That said, some of the patients were of the view that they don't even care about the side effects they get from the drugs so far as it will get them cured. According to one 45 year old man:

> " Treatment *so far has been very effective but I just want to get better, I'm not really concern about the side effects of the medications*" (Participant 5).

# CHAPTER FIVE

# DISCUSSION

## 4.1 Introduction

This chapter contains a discussion of the study results. It entails contrasting the findings with those of other TB investigations. This covers information on the respondents' demographics, degree of TB knowledge, emotional and psychological impact of tuberculosis on patients, quality of care and support provided to TB patients, social and economic dimensions of TB on patients, risks factor associated with TB and finally, patients' perspectives on the effectiveness and side effects of TB treatment. In this chapter, we present the results of our qualitative study conducted at The Tamale Teaching Hospital, delving into the nuanced narratives and perspectives of individuals living with tuberculosis. Through in-depth interviews and careful analysis, this chapter seeks to unravel the multifaceted dimensions of patients' experiences with the disease and its treatment. As we unveil the findings, we also embark on a critical discussion that synthesizes these results within the broader context of tuberculosis care.



## 4.2 The lived experiences of TB patients at the Tamale Teaching Hospital

The diagnosis of TB came to most of the respondents as a very big surprise as they never expected to fall a victim to such illness. Some of them were scared and thinking that it could be the end of their live while a section of them were thinking about the possibility of infecting other members of their families. In other places like Nepal, people exposed to TB patients were also afraid to go for check-up due to the misconceptions and fear attached to the disease (Marahatta et al., 2020). This forced some patients to resort to traditional healers and only report to the hospital with associated complications.

Furthermore, findings of this study indicated that majority of the TB patients face some form of stigma and discrimination at a point in time during their plight. Some of these experiences were direct and others were indirect. The current finding is replicated in previous literature (Chang & Cataldo, 2014). In other studies, some of the stigma-related perceptions attached to TB were the assumption that TB patients are careless and responsible for their sickness, the association drawn between HIV, TB and immoral behavior, and the perception that TB is incurable (Chen et al., 2021; Cremers et al., 2015; Lee et al., 2017; S. Tadesse, 2016). The stigma and discrimination attached to TB plays a crucial role in affecting patients' adherence to their medication regimen. Elsewhere, TB patients refused to disclose their status due to the fear of stigma and discrimination (Duko et al., 2019). This justifies the need to expand mass sensitization on TB so as to erase the negative and false perceptions associated with victims of TB.

**4.3 Psychosocial, economic, and healthcare-related factors influencing TB patients**

The study respondents were reported to have faced diverse economic difficulties due to their illness. Many of them said they were not able to engage in any income generating activity due to the restrictions posed by the condition. Although some aspects of TB treatment is offered free of charge in public health facilities, patents incurred embedded costs related to transport fares and food. Our result is similar to what was reported in previous studies (Oshi et al., 2020; Thomas et al., 2016). Similarly in Ethiopia, TB exposed individuals delayed seeking medical attention at the health facilities and even those on treatment failed to go for reviews because they couldn't afford the high transport fares (T. Tadesse et al., 2013). Despite most TB patients losing their jobs in Nigeria, the cost of treating TB keeps soaring where each patient is expected to spend about US$52.02 in order to access treatment (Onazi et al., 2015). In South Africa, poorer patients incurred higher direct costs during treatment than those who were less poor (Foster et al., 2015).

In other jurisdictions, TB patients had to take loans and/or sell their property in order to cover the cost of their treatment (Tanimura et al., 2014).

More so, the interplay between TB and poverty is well documented. Kim et al. (2005) argue that TB is both a cause and consequence of poverty and the high TB burden in low-income settings such as sub-Saharan Africa is an indication of this (Tanimura et al., 2014). Given the financial catastrophes associated with this condition, there is a need to ensure that TB patients and affected families receive appropriate income replacement and other social protection interventions.

Furthermore, the participants in this study provided insights into how TB has affected their social relationships, including interactions with family, friends, and the community. In addition, the diagnosis of TB has further affected respondents' ability to take part in congregational worships as well as participate in social gatherings such as weddings and naming ceremonies. Likewise, social isolation was cited in a systematic review article as a factor that affects TB patients' emotional status and wellbeing (Alene et al., 2018). Meanwhile, psychosocial support is noted to improve TB patients' adherence to the treatment therapy (Kaliakbarova et al., 2013).



### 4.4 How TB patients navigate challenges and coping mechanisms

Coping mechanisms are means by which people mitigate some of the experiences of stigma. People with stronger coping mechanisms are known to have better treatment outcomes (Yellappa et al., 2016). There are several studies that explored the strategies TB patients use to cope with the catastrophes that come with their condition (Bieh et al., 2017; Horter et al., 2014; Yellappa et al., 2016). Mukerji and Turan cited in their study that people with stronger coping mechanisms are known to have better treatment outcomes (Mukerji & Turan, 2018).

In this study, financial and emotional support from family, friends, and healthcare professionals served as better coping mechanisms adopted by the respondents. This finding is consistent with previously conducted studies in other places like Tajikistan (Ayé et al., 2011) and Thailand (Numpong et al., 2022). Similarly, the current result is resonated in Indonesia where Family support received by TB patients comes from the support of nuclear families who live in one house, who understand the healthy development of respondents and generally provide informational, instrumental and emotional support (Makhfudli et al., 2018). In coping with the financial difficulties associated with TB treatment, patients in Pakistan borrowed money from their close friends to support their expenses (Saqib et al., 2018) which is consistent with findings of the current study.

Conversely, the current finding contradicts a study in India where TB patients reported prayer as a source of strength and a helpful means to combat the negative experiences of their condition (Mukerji & Turan, 2018). Likewise in Ethiopia, resorting to religious camps was a cognitive measure adopted by TB clients in attempts to cope with the sickness (Yesuf et al., 2018). A very old Indian study dated back to the pre-DOTs era explained that TB patients who use coping mechanisms such as social isolation and prayer were more likely to be non-compliant with their treatment regimen (Barnhoorn & Adriaanse, 1992). Given this context, one can argue that TB patients in the current study setting (Tamale Teaching Hospital) are less likely to be non-compliant with their medications since none of these mechanisms was reported by them. Elsewhere in Pakistan, some TB victims (33.3% of who were from lower income quintile) went further to withdraw their children from school as a means of coping with the economic burden posed by their condition (Saqib et al., 2018).

### 4.5 Patients' Perspectives on the Effectiveness and side effects of TB treatment

According to the reports gathered from the respondents of this study, some of them were aware of the condition even before they were diagnosed whiles to others, they got to know about it after their diagnosis. This finding is in-line with a cross-sectional study in West Bengal (India) where the proportion of TB clients who demonstrated some level of awareness about their condition prior to the diagnosis was almost equal to those who knew nothing about it (Pramanik & Ghosh, 2015). According to Das & Baidya (2015), TB patients who mostly demonstrate adequate knowledge about their condition are more likely to be those who have higher educational attainment. Additionally, this study found television and health centers as the main sources of information for TB patients regarding their condition which is similar to the results of another study (Pramanik & Ghosh, 2015). Contrary to this finding is a study in Tanzania where family and friends were the most significant sources of information on TB, with health facilities rated the least (Mangesho et al., 2007).

Furthermore, the respondents in the current study expressed great satisfaction towards the TB treatment and services indicating how the medication has improved their health which is at par with what TB patients in Morocco also reported (Tachfouti et al., 2012). A similar research in Ethiopia (Tesfahuneygn et al., 2015) reviewed records of over four thousand TB patients and found that the overall treatment success rate was more than ninety percent which further buttresses the claims made by the respondents in the current study. Interestingly, majority of the patients in their study who had unsuccessful treatment were those who defaulted (Tesfahuneygn et al., 2015). This points out the need to strengthen the DOTs strategy so as to reduce the incidence of defaulting and thus, improve the success rate of the TB treatment.

As replicated in the present survey, prior literature highlighted side effects of the TB drugs (such as nausea, drowsiness, fatigue) among several other factors that hinder adherence to the treatment regimen (Bhatt & Kc, 2017; Nezenega et al., 2020; Oh et al., 2023). The negative implication of this is that it makes patients reluctant to follow the medication regimen (defaulting) which could lead to multi-drug resistance tuberculosis (Pontali et al., 2019). To curb this, it will therefore be prudent to give supplemental medications to the patients which could handle the side effects of the TB treatment but will not necessarily reduce its efficacy.



### 4.6 Limitations, and Future Research Directions

This study explored the lived experiences of tuberculosis (TB) patients at the Tamale Teaching Hospital, focusing on their emotional, psychological, social, and economic challenges, as well as their coping mechanisms and perceptions of treatment. The discussion integrates the study's key findings, compares them with existing literature, and highlights their significance. it identifies limitations and suggests areas for future research to strengthen understanding and improve TB patient care.

The study revealed that TB patients experience significant emotional distress, including fear, anxiety, and stigma. Many participants reported feelings of isolation due to societal misconceptions about TB transmission. These findings align with Munro et al. (2017), who emphasize the psychological burden of TB due to stigma and discrimination. However, a key limitation is that the study relied solely on self-reported experiences, which may have been influenced by recall bias or social desirability bias. the study focused only on patients undergoing treatment, thereby excluding those who refused or discontinued treatment. Future research could adopt a longitudinal approach to track TB patients' experiences over time, from diagnosis to post-treatment, to provide a more comprehensive understanding of their emotional responses. Exploring

the perspectives of non-adherent patients could also shed light on reasons behind treatment refusal or discontinuation.

The study also found that TB patients faced multiple psychosocial and economic challenges, such as stigma, family rejection, job loss, high transportation costs, and financial strain. These findings support Wingfield et al. (2014), who highlight the economic burden of TB treatment in low-income settings. A limitation of this study is that it did not include caregivers or family members, whose perspectives could provide a more holistic understanding of the impact of TB on household dynamics. Moreover, since the study was conducted in an urban hospital setting, the findings may not fully capture the economic and social challenges faced by TB patients in rural areas, where access to healthcare services is more limited. Future research should consider family-centered studies to explore how TB affects household members and caregivers. A comparative study between rural and urban TB patients could provide insights into how geographical location influences economic and psychosocial challenges.

In terms of coping mechanisms, patients reported relying on social support networks, spirituality, and personal resilience, while some engaged in avoidance strategies such as social withdrawal to avoid stigma. These findings are consistent with Meyer et al. (2015), who emphasize the role of social and religious coping mechanisms in chronic illness management. However, the study focused only on patients who remained in treatment, meaning it did not explore the coping mechanisms of those who defaulted. Another limitation is that the study did not assess the effectiveness of different coping mechanisms in improving mental well-being and adherence. Future research could explore the coping strategies of TB patients who discontinue treatment, as stigma and social withdrawal may contribute to non-adherence. A quantitative study could assess how different coping mechanisms influence psychological resilience and treatment outcomes.

Patients' perspectives on TB treatment showed that while many recognized the importance of completing their treatment, they reported significant side effects such as nausea, fatigue, and appetite loss, which impacted their daily lives. Some patients also expressed dissatisfaction with the level of information provided by healthcare providers regarding treatment effects. These findings align with Schnippel et al. (2018), who highlight the role of medication side effects in influencing adherence. However, this study did not differentiate between patients with drug-sensitive and drug-resistant TB**,** yet their treatment regimens and side effects may differ significantly. Another limitation is that the study relied on self-reported symptoms, which could be influenced by individual pain tolerance and perceptions rather than objective clinical assessments. Future research should compare the treatment experiences of drug-sensitive versus drug-resistant TB patients, as their medication regimens and side effects differ. A mixed-methods study that combines qualitative interviews with clinical monitoring of side effects could provide a more objective assessment of treatment-related challenges.

Overall, while this study provides valuable insights into the lived experiences of TB patients, its limitations highlight the need for further research to refine understanding and improve TB patient care. Future studies should consider longitudinal and comparative approaches, incorporate the perspectives of caregivers and non-adherent patient**s**, and use mixed-methods designs to enhance the depth and applicability of findings.

# CHAPTER SIX

# CONCLUSION AND RECOMMENDATION

## 6.1 Conclusion

The qualitative study conducted at the Tamale Teaching Hospital sheds light on the intricate and multifaceted experiences of tuberculosis (TB) patients, highlighting significant challenges in diagnosis, stigma, economic hardship, and treatment adherence. The unexpected diagnosis of TB induces fear and concern among patients, not only about their health but also about the risk of infecting family members. This emotional turmoil is compounded by prevalent stigma and discrimination, which are deeply rooted in societal misconceptions and fears about the disease. The stigma often forces patients into social isolation and affects their willingness to adhere to treatment regimens, a finding consistent with existing literature on TB-related stigma and its detrimental impact on health outcomes.

Economically, TB patients face substantial difficulties. Many are unable to work due to the debilitating nature of the disease, and despite some aspects of TB treatment being free, additional costs for transport and nutrition place a heavy financial burden on them. This economic strain leads to delays in seeking care and treatment non-adherence, further complicating their health status. These findings resonate with studies from other low-income settings, underscoring the need for comprehensive financial support mechanisms to aid TB patients.

Social relationships are also severely impacted by TB. Patients report strained interactions with family and friends and a reduction in social participation. This social isolation, coupled with the physical and emotional burden of TB, necessitates robust psychosocial support systems. Coping mechanisms such as family support and guidance from healthcare professionals have proven

beneficial, yet the reliance on traditional healers and financial constraints continue to pose significant barriers to effective disease management.

Patients' perspectives on TB treatment in this study are generally positive, with many expressing satisfactions with the improvements in their health due to the treatment. However, the side effects of TB medications remain a challenge, contributing to treatment defaulting and the risk of drug-resistant TB strains. This highlights the critical need for continuous patient education and support to manage these side effects effectively.



### 6.2 Recommendations

1. The management of Tamale Teaching Hospital should improve patient education by ensuring TB patients receive clear information on treatment, side effects, and the importance of adherence.
2. Tamale Teaching Hospital should integrate psychosocial support into TB care by providing mental health counseling and establishing peer support groups for patients.
3. Healthcare providers at Tamale Teaching Hospital should undergo training on stigma reduction, counseling techniques, and patient-centered approaches to improve TB care.
4. The hospital management should collaborate with NGOs and community organizations to provide financial and logistical support, including assistance with transportation and nutrition for TB patients facing economic challenges.
5. The Northern Regional Health Directorate should strengthen TB treatment monitoring by using community health workers to follow up on patients who miss appointments and reduce treatment default rates.

6. The Ghana Health Service (GHS) should review TB education programs to include a stronger focus on psychosocial challenges and stigma, ensuring that patients receive holistic care.
7. Future research should explore the coping mechanisms of TB patients who default on treatment and assess the effectiveness of psychosocial support interventions in improving adherence and well-being.



### 6.3 Limitations of the Study

This research was conducted exclusively in a primary hospital within the Tamale Metropolis, limiting the generalizability of the findings to all other healthcare institutions in the northern region. The results may have been influenced by prejudice in recall, given that respondents had to recollect certain previous experiences. The primary challenge faced by the study was insufficient financial resources, affecting the procurement of stationery, logistics, and the hiring of research assistants to enhance the data collection process.

## REFERENCES

Alene, K. A., Clements, A. C. A., McBryde, E. S., Jaramillo, E., Lönnroth, K., Shaweno, D., Gulliver, A., & Viney, K. (2018). Mental health disorders, social stressors, and health-related quality of life in patients with multidrug-resistant tuberculosis: a systematic review and meta-analysis. *Journal of Infection*, *77*(5), 357–367.

Alipanah, N., Jarlsberg, L., Miller, C., Linh, N. N., Falzon, D., Jaramillo, E., & Nahid, P. (2018). Adherence interventions and outcomes of tuberculosis treatment: A systematic review and meta-analysis of trials and observational studies. *PLoS Medicine*, *15*(7), e1002595.

Amalba, A., & Bugri, A. A. (2021). Assessing the prevalence and effect of adverse drug reactions among patients receiving first line anti-tubercular medicines in the Tamale Teaching Hospital, Ghana. *Pan African Medical Journal*, *38*(1).

Ayé, R., Wyss, K., Abdualimova, H., & Saidaliev, S. (2011). Factors determining household expenditure for tuberculosis and coping strategies in Tajikistan. *Tropical Medicine & International Health*, *16*(3), 307–313.

Barnhoorn, F., & Adriaanse, H. (1992). In search of factors responsible for noncompliance among tuberculosis patients in Wardha District, India. *Social Science & Medicine*, *34*(3), 291–306.

Bhatt, C. P., & Kc, B. (2017). Side effects associated with drugs used in treatment of multi drug resistant tuberculosis and treatment related factors of multi drug resistant tuberculosis patients In Kathmandu valley. *SAARC Journal of Tuberculosis, Lung Diseases and HIV/AIDS*, *14*(1), 1–6.

Bieh, K. L., Weigel, R., & Smith, H. (2017). Hospitalized care for MDR-TB in Port Harcourt, Nigeria: a qualitative study. *BMC Infectious Diseases*, *17*, 1–9.

Bogart, L. M., Wagner, G. J., Galvan, F. H., Landrine, H., Klein, D. J., & Sticklor, L. A. (2011). Perceived discrimination and mental health symptoms among Black men with HIV. *Cultural Diversity and Ethnic Minority Psychology*, *17*(3), 295.

Bulabula, A. N. H., Nelson, J. A., Musafiri, E. M., Machekano, R., Sam-Agudu, N. A., Diacon, A. H., Shah, M., Creswell, J., Theron, G., & Warren, R. M. (2019). Prevalence, predictors, and successful treatment outcomes of Xpert MTB/RIF–identified rifampicin-resistant tuberculosis in post-conflict eastern democratic republic of the Congo, 2012–2017: a retrospective province-wide cohort study. *Clinical Infectious Diseases*, *69*(8), 1278–1287.

Cegielski, J. P., Dalton, T., Yagui, M., Wattanaamornkiet, W., Volchenkov, G. V, Via, L. E., Van Der Walt, M., Tupasi, T., Smith, S. E., & Odendaal, R. (2014). Extensive drug resistance acquired during treatment of multidrug-resistant tuberculosis. *Clinical Infectious Diseases*, *59*(8), 1049–1063.

Chakaya, J., Khan, M., Ntoumi, F., Aklillu, E., Fatima, R., Mwaba, P., Kapata, N., Mfinanga, S., Hasnain, S. E., & Katoto, P. D. M. C. (2021). Global Tuberculosis Report 2020–Reflections on the Global TB burden, treatment and prevention efforts. *International Journal of Infectious Diseases*, *113*, S7–S12.

Chang, S.-H., & Cataldo, J. K. (2014). A systematic review of global cultural variations in knowledge, attitudes and health responses to tuberculosis stigma. *The International Journal of Tuberculosis and Lung Disease*, *18*(2), 168–173.

Chen, X., Du, L., Wu, R., Xu, J., Ji, H., Zhang, Y., Zhu, X., & Zhou, L. (2021). Tuberculosis-related stigma and its determinants in Dalian, Northeast China: a cross-sectional study. *BMC Public Health*, *21*, 1–10.

Cox, V., Brigden, G., Crespo, R. H., Lessem, E., Lynch, S., Rich, M. L., Waning, B., & Furin, J. (2018). Global programmatic use of bedaquiline and delamanid for the treatment of multidrug-resistant tuberculosis. *The International Journal of Tuberculosis and Lung Disease*, *22*(4), 407–412.

Craig, G. M., Daftary, A., Engel, N., O'driscoll, S., & Ioannaki, A. (2017). Tuberculosis stigma as a social determinant of health: a systematic mapping review of research in low incidence countries. *International Journal of Infectious Diseases*, *56*, 90–100.

Cremers, A. L., de Laat, M. M., Kapata, N., Gerrets, R., Klipstein-Grobusch, K., & Grobusch, M. P. (2015). Assessing the consequences of stigma for tuberculosis patients in urban Zambia. *PloS One*, *10*(3), e0119861.

Daftary, A. (2012). HIV and tuberculosis: the construction and management of double stigma. *Social Science & Medicine*, *74*(10), 1512–1519.

Das, R., & Baidya, S. (2015). A study on knowledge of pulmonary tuberculosis and DOTS among pulmonary tuberculosis patients in west Tripura district, India. *SAARC Journal of Tuberculosis, Lung Diseases and HIV/AIDS*, *12*(1), 1–7.

Diacon, A. H., Pym, A., Grobusch, M. P., de Los Rios, J. M., Gotuzzo, E., Vasilyeva, I., Leimane, V., Andries, K., Bakare, N., & De Marez, T. (2014). Multidrug-resistant tuberculosis and culture conversion with bedaquiline. *New England Journal of Medicine*,

*371*(8), 723–732.

Duko, B., Bedaso, A., Ayano, G., & Yohannis, Z. (2019). Perceived stigma and associated factors among patient with tuberculosis, Wolaita Sodo, Ethiopia: Cross-sectional study. *Tuberculosis Research and Treatment*, *2019*(1), 5917537.

Foster, N., Vassall, A., Cleary, S., Cunnama, L., Churchyard, G., & Sinanovic, E. (2015). The economic burden of TB diagnosis and treatment in South Africa. *Social Science & Medicine*, *130*, 42–50.

Gler, M. T., Skripconoka, V., Sanchez-Garavito, E., Xiao, H., Cabrera-Rivero, J. L., Vargas-Vasquez, D. E., Gao, M., Awad, M., Park, S.-K., & Shim, T. S. (2012). Delamanid for multidrug-resistant pulmonary tuberculosis. *New England Journal of Medicine*, *366*(23), 2151–2160.

Goffman, E. (2009). *Stigma: Notes on the management of spoiled identity*. Simon and schuster.

Grace, A. G., Mittal, A., Jain, S., Tripathy, J. P., Satyanarayana, S., Tharyan, P., & Kirubakaran, R. (2019). Shortened treatment regimens versus the standard regimen for drug-sensitive pulmonary tuberculosis. *Cochrane Database of Systematic Reviews*, *12*.

Holland, J. C., Kelly, B. J., & Weinberger, M. I. (2010). Why psychosocial care is difficult to integrate into routine cancer care: stigma is the elephant in the room. *Journal of the National Comprehensive Cancer Network*, *8*(4), 362–366.

Horter, S., Stringer, B., Venis, S., & du Cros, P. (2014). “I can also serve as an inspiration”: A qualitative study of the TB&Me blogging experience and its role in MDR-TB treatment.

*PLoS One*, *9*(9), e108591.

Kaliakbarova, G., Pak, S., Zhaksylykova, N., Raimova, G., Temerbekova, B., & Van Den Hof, S. (2013). Psychosocial support improves treatment adherence among MDR-TB patients: experience from East Kazakhstan. *Open Infect Dis J*, *7*(1), 60–64.

Kipp, A. M., Pungrassami, P., Stewart, P. W., Chongsuvivatwong, V., Strauss, R. P., & Van Rie, A. (2011). Study of tuberculosis and AIDS stigma as barriers to tuberculosis treatment adherence using validated stigma scales. *The International Journal of Tuberculosis and Lung Disease*, *15*(11), 1540–1546.

Krishna, V. (2022). *Phantom plague: how tuberculosis shaped history*. Penguin Random House India Private Limited.

Laokri, S., Drabo, M. K., Weil, O., Kafando, B., Dembele, S. M., & Dujardin, B. (2013). Patients are paying too much for tuberculosis: a direct cost-burden evaluation in Burkina Faso. *PloS One*, *8*(2), e56752.

Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, *1*(3), 141–169.

Lee, L., Tung, H., Chen, S., & Fu, C. (2017). Perceived stigma and depression in initially diagnosed pulmonary tuberculosis patients. *Journal of Clinical Nursing*, *26*(23–24), 4813–4821.

Lönnroth, K., Migliori, G. B., Abubakar, I., D'Ambrosio, L., De Vries, G., Diel, R., Douglas, P., Falzon, D., Gaudreau, M.-A., & Goletti, D. (2015). Towards tuberculosis elimination: an

action framework for low-incidence countries. *European Respiratory Journal*, *45*(4), 928–952.

Lönnroth, K., & Raviglione, M. (2008). Global epidemiology of tuberculosis: prospects for control. *Seminars in Respiratory and Critical Care Medicine*, *29*(05), 481–491.

Macintyre, K., Bakker, M. I., Bergson, S., Bhavaraju, R., Bond, V., Chikovore, J., Colvin, C., Craig, G. M., Cremers, A. L., & Daftary, A. (2017). Defining the research agenda to measure and reduce tuberculosis stigmas. *The International Journal of Tuberculosis and Lung Disease*, *21*(11), S87–S96.

Makhfudli, A. F. R., Sukartini, T., & Asmoro, C. P. (2018). *Family Support and Coping Mechanisms in Patients with Pulmonary Tuberculosis*.

Mangesho, P. E., Shayo, E. H., Makunde, W. H., Keto, G. B., Mandara, C. I., Kamugisha, M. L., Kilale, A. M., & Ishengoma, D. R. (2007). Commnity knowledge, attitudes and practices towards tberculosis and its treatment inMpwapwa District, central Tanzania. *Tanzania Journal of Health Research*, *9*(1), 38–43.

Marahatta, S. B., Yadav, R. K., Giri, D., Lama, S., Rijal, K. R., Mishra, S. R., Shrestha, A., Bhattrai, P. R., Mahato, R. K., & Adhikari, B. (2020). Barriers in the access, diagnosis and treatment completion for tuberculosis patients in central and western Nepal: A qualitative study among patients, community members and health care workers. *PloS One*, *15*(1), e0227293.

Marais, B. J., Lönnroth, K., Lawn, S. D., Migliori, G. B., Mwaba, P., Glaziou, P., Bates, M., Colagiuri, R., Zijenah, L., & Swaminathan, S. (2013). Tuberculosis comorbidity with

communicable and non-communicable diseases: integrating health services and control efforts. *The Lancet Infectious Diseases*, *13*(5), 436–448.

Moodley, N., Saimen, A., Zakhura, N., Motau, D., Setswe, G., Charalambous, S., & Chetty-Makkan, C. M. (2020). 'They are inconveniencing us'-exploring how gaps in patient education and patient centred approaches interfere with TB treatment adherence: perspectives from patients and clinicians in the Free State Province, South Africa. *BMC Public Health*, *20*, 1–10.

Mukerji, R., & Turan, J. M. (2018). Exploring manifestations of TB-related stigma experienced by women in Kolkata, India. *Annals of Global Health*, *84*(4), 727.

Munro, S. A., Lewin, S. A., Smith, H. J., Engel, M. E., Fretheim, A., & Volmink, J. (2007). Patient adherence to tuberculosis treatment: a systematic review of qualitative research. *PLoS Medicine*, *4*(7), e238.

Nezenega, Z. S., Perimal-Lewis, L., & Maeder, A. J. (2020). Factors influencing patient adherence to tuberculosis treatment in Ethiopia: a literature review. *International Journal of Environmental Research and Public Health*, *17*(15), 5626.

Ngwatu, B. K., Nsengiyumva, N. P., Oxlade, O., Mappin-Kasirer, B., Nguyen, N. L., Jaramillo, E., Falzon, D., & Schwartzman, K. (2018). The impact of digital health technologies on tuberculosis treatment: a systematic review. *European Respiratory Journal*, *51*(1).

Numpong, S., Kengganpanich, M., Kaewkungwal, J., Pan-Ngum, W., Silachamroon, U., Kasetjaroen, Y., & Lawpoolsri, S. (2022). Confronting and coping with multidrug-resistant tuberculosis: Life experiences in Thailand. *Qualitative Health Research*, *32*(1), 159–167.

Oh, A. L., Makmor-Bakry, M., Islahudin, F., & Wong, I. C. K. (2023). Prevalence and predictive factors of tuberculosis treatment interruption in the Asia region: a systematic review and meta-analysis. *BMJ Global Health*, *8*(1), e010592.

Onazi, O., Gidado, M., Onazi, M., Daniel, O., Kuye, J., Obasanya, O., Odusote, T., & Gande, S. (2015). Estimating the cost of TB and its social impact on TB patients and their households. *Public Health Action*, *5*(2), 127–131.

Organization, W. H. (2008). *Global tuberculosis control: surveillance, planning, financing: WHO report 2008* (Vol. 393). World Health Organization.

Organization, W. H. (2015). *Tuberculosis control: Report of a meeting of national programme managers and partners, New Delhi, India, 10-14 November 2014*. World Health Organization.

Organization, W. H. (2022). *Rapid communication: key changes to the treatment of drug-resistant tuberculosis*. World Health Organization.

Oshi, D., Chukwu, J., Nwafor, C., Chukwu, N. E., Meka, A. O., Anyim, M., Ukwaja, K. N., Alobu, I., Ekeke, N., & Oshi, S. N. (2020). Support and unmet needs of patients undergoing multidrug-resistant tuberculosis (MDR-TB) treatment in southern Nigeria. *The International Journal of Health Planning and Management*, *35*(4), 832–842.

Pontali, E., Raviglione, M. C., & Migliori, G. B. (2019). Regimens to treat multidrug-resistant tuberculosis: past, present and future perspectives. *European Respiratory Review*, *28*(152).

Pramanik, D., & Ghosh, J. R. (2015). Knowledge and awareness of tuberculosis among

pulmonary tuberculosis patients in a rural area of West Bengal. *SAARC Journal of Tuberculosis, Lung Diseases and HIV/AIDS*, *12*(2), 13–19.

Rahmati, S., Nasehi, M., Bahrampour, A., Mirzazadeh, A., & Shahesmaeili, A. (2023). Barriers and gaps in tuberculosis care and treatment in Iran: A multi-center qualitative study. *Journal of Clinical Tuberculosis and Other Mycobacterial Diseases*, *31*, 100353

Saqib, S. E., Ahmad, M. M., & Amezcua-Prieto, C. (2018). Economic burden of tuberculosis and its coping mechanism at the household level in Pakistan. *The Social Science Journal*, *55*(3), 313–322.

Scambler, G., & Hopkins, A. (1986). Being epileptic: coming to terms with stigma. *Sociology of Health & Illness*, *8*(1), 26–43.

Sharan, R., Bucşan, A. N., Ganatra, S., Paiardini, M., Mohan, M., Mehra, S., Khader, S. A., & Kaushal, D. (2020). Chronic immune activation in TB/HIV co-infection. *Trends in Microbiology*, *28*(8), 619–632.

Shringarpure, K. S., Isaakidis, P., Sagili, K. D., Baxi, R. K., Das, M., & Daftary, A. (2016). "When treatment is more challenging than the disease": a qualitative study of MDR-TB patient retention. *PloS One*, *11*(3), e0150849.

Singh, P., Kant, S., Gaur, P., Tripathi, A., & Pandey, S. (2018). Extra pulmonary tuberculosis: An overview and review of literature. *Int J Life Sci Scienti Res*, *4*(1), 1539–1541.

Tachfouti, N., Slama, K., Berraho, M., & Nejjari, C. (2012). The impact of knowledge and attitudes on adherence to tuberculosis treatment: a case-control study in a Moroccan region.

*Pan African Medical Journal*, *12*(1).

Tadesse, S. (2016). Stigma against tuberculosis patients in Addis Ababa, Ethiopia. *PloS One*, *11*(4), e0152900.

Tadesse, T., Demissie, M., Berhane, Y., Kebede, Y., & Abebe, M. (2013). Long distance travelling and financial burdens discourage tuberculosis DOTs treatment initiation and compliance in Ethiopia: a qualitative study. *BMC Public Health*, *13*, 1–7.

Tanimura, T., Jaramillo, E., Weil, D., Raviglione, M., & Lönnroth, K. (2014). Financial burden for tuberculosis patients in low-and middle-income countries: a systematic review. *European Respiratory Journal*, *43*(6), 1763–1775.

Tesfahuneygn, G., Medhin, G., & Legesse, M. (2015). Adherence to Anti-tuberculosis treatment and treatment outcomes among tuberculosis patients in Alamata District, northeast Ethiopia. *BMC Research Notes*, *8*, 1–11.

Thomas, B. E., Shanmugam, P., Malaisamy, M., Ovung, S., Suresh, C., Subbaraman, R., Adinarayanan, S., & Nagarajan, K. (2016). Psycho-socio-economic issues challenging multidrug resistant tuberculosis patients: a systematic review. *PloS One*, *11*(1), e0147397.

Trébucq, A., Schwoebel, V., Kashongwe, Z., Bakayoko, A., Kuaban, C., Noeske, J., Hassane, S., Souleymane, B., Piubello, A., & Ciza, F. (2018). Treatment outcome with a short multidrug-resistant tuberculosis regimen in nine African countries. *The International Journal of Tuberculosis and Lung Disease*, *22*(1), 17–25.

Ukwaja, K. N., Alobu, I., Nweke, C. O., & Onyenwe, E. C. (2013). Healthcare-seeking behavior,

treatment delays and its determinants among pulmonary tuberculosis patients in rural Nigeria: a cross-sectional study. *BMC Health Services Research*, *13*, 1–9.

Volmink, J., & Garner, P. (2007). Directly observed therapy for treating tuberculosis. *Cochrane Database of Systematic Reviews*, *4*.

Wingfield, T., Boccia, D., Tovar, M., Gavino, A., Zevallos, K., Montoya, R., Loennroth, K., & Evans, C. A. (2014). Defining catastrophic costs and comparing their importance for adverse tuberculosis outcome with multi-drug resistance: a prospective cohort study, Peru. *PLoS Medicine*, *11*(7), e1001675.

Yellappa, V., Lefèvre, P., Battaglioli, T., Narayanan, D., & Van der Stuyft, P. (2016). Coping with tuberculosis and directly observed treatment: a qualitative study among patients from South India. *BMC Health Services Research*, *16*, 1–11.

Yesuf, Y., Wondimu, H., & Demeke, A. (2018). A new look to the coping strategy preferences of TB patients: Qualitative Explorations among TB patients in Northwestern Ethiopia. *International Journal of Infectious Diseases*, *73*, 343.



## APPENDIX I: DATA COLLECTION TOOLS

## LIVING WITH TUBERCULOSIS: A QUALITATIVE STUDY OF PATIENTS' EXPERIENCES WITH DISEASE AND TREATMENT AT THE TAMALE TEACHING HOSPITAL



### Introduction

Dear Sir/Madam,

You are kindly invited to serve as a participant in a project on the topic: ''**Living with Tuberculosis: A Qualitative Study of Patients' Experiences with Disease and Treatment at The Tamale Teaching''**. The researcher is a Masters of Public Health student of the University for Development Student, School of Public Health and the Department of Global and International Health. This is an academic project, which is in partial fulfilment of the requirements for the award of Masters of Public Health Degree. The interview will take between 45 to 60 minutes to complete. Participation is completely voluntary, and all information provided shall be treated with strictest of confidentiality.

### Section A: Demographic Characteristics

### SECTION A: DEMOGRAGHPIC CHARACTERISTICS

1. Sex of respondent: (a) Male [ ] (b) Female [ ]

2. Age Range: (a) Less than 20 years [ ] (b) 21 – 30 years [ ] (c) 31 – 40 years [ ]

(d) 41 – 50 years [ ] (e) Above 50 years [ ]

3. Educational level: (a) MSc/MBA/MPhil [ ] (b) HND/Degree [ ] (c) Professional [ ]

(d) Secondary [ ]

4. Marital status? (a) Single [ ] (b) Married [ ] (c) Divorced [ ] (d) Widow [ ]

5. What is your occupation?

**Section B: Emotional and psychological impact of tuberculosis on patients**

How was your condition (TB) diagnosed?

Where and when do you think, you were exposed to the condition (TB)?

Can you describe your initial reactions and feelings when you first received your tuberculosis diagnosis?

Have you encountered stigma or discrimination from others due to your tuberculosis diagnosis? If so, could you share your experiences?

Can you describe the emotional and psychological aspects of living with tuberculosis?

In your opinion, what kind of psychological support or counseling services would have been helpful during your treatment?



**Section B: Quality of care and support provided to TB patients.**

What kind of support or information did you receive from healthcare professionals at the Tamale Teaching Hospital regarding tuberculosis treatment?

Were there any specific experiences or challenges related to accessing healthcare services and treatment at the Tamale Teaching Hospital?

What, in your opinion, could be improved in the services and support provided to tuberculosis patients at the hospital?

**Section: Social and Economic Dimensions of TB on patients.**

How has tuberculosis affected your social relationships, including interactions with family, friends, and the community?

Did you face any challenges related to employment (job), income, or financial stability due to your tuberculosis diagnosis and treatment?

Has living TB affect your standard of living (Accommodation, exposure, isolation and overcrowdings)

**Section: Patients' Perspectives on the Effectiveness and side effects of TB treatment.**

What is your knowledge level of the condition?

How do you perceive the effectiveness of the tuberculosis treatment you received?

Have you experienced any side effects from your tuberculosis medications, and if so, could you describe these experiences?

Looking back on your experiences, what advice or insights would you offer to other individuals facing a tuberculosis diagnosis and treatment?

**Thank you for your participation**

## APPENDIX II: ETHICAL APPROVAL LETTER



# UNIVERSITY FOR DEVELOPMENT STUDIES

Tel: 03720-93382/26634/22078
Email: registrar@uds.edu.gh
Website: www.uds.edu.gh
P. O. Box TL 1350
Tamale, Ghana

Our Ref: UDS/RB/022/24

Your Ref:.....

OFFICE OF THE REGISTRAR

Date: 29TH FEBRUARY, 2024.

**DR. ABUKARI SALIFU,**
**UNIVERSITY FOR DEVELOPMENT STUDIES,**
**TAMALE.**

**ETHICAL APPROVAL NOTIFICATION**

With reference to your request for ethical clearance on the research proposal titled "**Living with Tuberculosis: A Qualitative Study of Patients' Experiences with Disease and Treatment at The Tamale Teaching Hospital**" I write to inform you that the University for Development Studies Institutional Review Board (UDSIRB) found your proposal including the consent forms to be satisfactory and have duly approved same. The mandatory period for the approval is six (6) months, starting from 29th February, 2024 to 29th July, 2024.

Subject to this approval, you are please required to observe the following conditions:

1. That the anonymity of the respondents shall be guaranteed as mentioned in the consent forms.
2. That you will acknowledge the source of the data collected in any publication related to this research.
3. That you will submit a field report and a copy of the research report to the UDSIRB.
4. That you may apply to the UDSIRB for any amendments relating to recruiting methods, informed consent procedures, study design and research personnel.
5. That you will strictly abide by the code of conduct of this University.

Please do not hesitate to refer any issue (s) that you may deem necessary for the attention of the Board.

Thank you.

Prof. Nafiu Amidu
*Chairman, UDSIRB*
*Cc: file*

## APPENDIX III: ADMINISTRATIVE APPROVAL LETTER

DEPARTMENT OF RESEARCH &DEVELOPMENT
TAMALE TEACHING HOSPITAL

In case of reply the number and date of this letter should be quoted

Box TL 16, Tamale
West Africa-Ghana

Tel: 03720-00180
Our Ref: TTH/R&D/SR/286
Your Ref:

5th October, 2023.

**To whom it may concern**

**CERTIFICATE OF AUTHORIZATION TO CONDUCT RESEARCH IN TAMALE TEACHING HOSPITAL**

I hereby introduce to you **Ms Saeeda Fuseini,** a Master of Public Health Student from the Department of Global and International Health, School of Public Health, University of Development Studies.

Ms Fuseini has been duly authorized to conduct a study titled **"Living with Tuberculosos: A Qualitative study of Patients Experiences with the Disease and Treatment at the Tamale Teaching Hospital".**

Please accord her the necessary assistance to enable her complete the study. If in doubt, kindly contact the Research Unit on the second floor of the administration block or on Telephone 0209281020. In addition, kindly report any misconduct of the Researcher(s) to the Research Unit for necessary action.

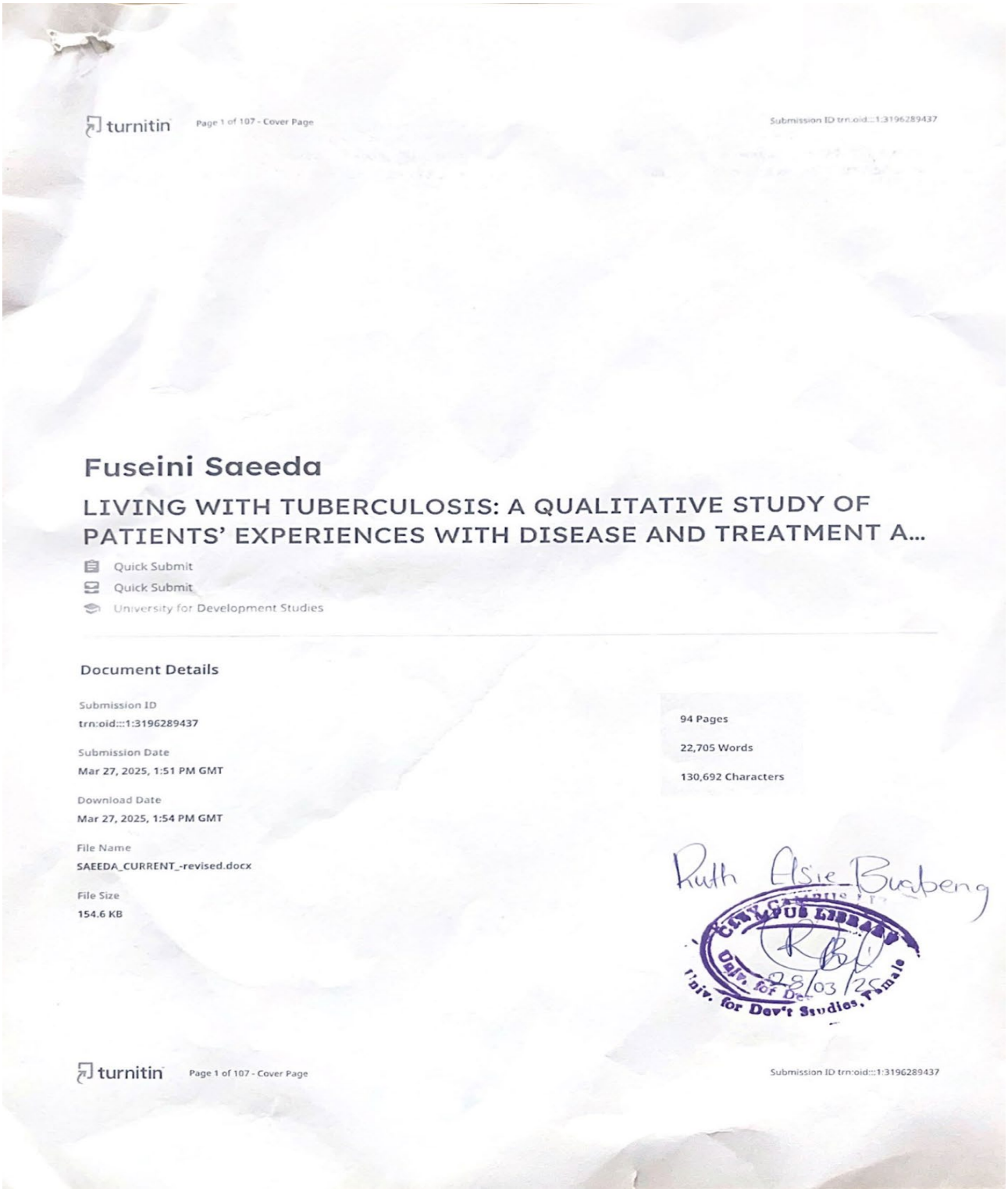
Upon completion, you are required to submit a copy of the final study to the Hospital.

Please note that this approval is given for a period of six months, beginning from 6th October, 2023 to 5th April, 2024.

Thank You.

**ALHASSAN MOHAMMED SHAMUDEEN,**
**(DEPUTY DIRECTOR AND HEAD, RESEARCH & DEVELOPMENT)**

## APPENDIX IV: PLAGIARISM REPORT



turnitin Page 1 of 107 - Cover Page Submission ID trn:oid:::1:3196289437

Fuseini Saeeda

LIVING WITH TUBERCULOSIS: A QUALITATIVE STUDY OF PATIENTS' EXPERIENCES WITH DISEASE AND TREATMENT A...

Quick Submit

Quick Submit

University for Development Studies

Document Details

Submission ID
trn:oid:::1:3196289437

Submission Date
Mar 27, 2025, 1:51 PM GMT

Download Date
Mar 27, 2025, 1:54 PM GMT

File Name
SAEEDA_CURRENT_-revised.docx

File Size
154.6 KB

94 Pages

22,705 Words

130,692 Characters

Ruth Alsie Bugbeng

UDS LIBRARY
Date, for Dir.
28/03/25
Univ. for Dev't Studies, Tamale

turnitin Page 1 of 107 - Cover Page Submission ID trn:oid:::1:3196289437

turnitin Page 2 of 107 - Integrity Overview Submission ID trn:oid:::1:3196289437

# 14% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

## Filtered from the Report

- Bibliography
- Cited Text

## Match Groups

225 Not Cited or Quoted 14%
Matches with neither in-text citation nor quotation marks

0 Missing Quotations 0%
Matches that are still very similar to source material

5 Missing Citation 0%
Matches that have quotation marks, but no in-text citation

0 Cited and Quoted 0%
Matches with in-text citation present, but no quotation marks

## Top Sources

12% Internet sources
6% Publications
7% Submitted works (Student Papers)

## Integrity Flags

**0 Integrity Flags for Review**

No suspicious text manipulations found.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.


turnitin Page 2 of 107 - Integrity Overview Submission ID trn:oid:::1:3196289437