

**EXPLORING PERCEPTIONS OF CARE QUALITY, AND THE BARRIERS  
AND FACILITATORS TO IMPLEMENTATION OF A QUALITY  
IMPROVEMENT PROGRAMME AT ZOMBA MENTAL HOSPITAL,  
MALAWI**

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## **ABSTRACT**

### **BACKGROUND:**

There are different ways of describing quality of mental health services. Most institutions and researchers consider services to be of good quality when they are cost-effective, efficient, evidence-based, target specific needs of patients, and meet the expectation of users. Quality mental health services are those provided by qualified and competent providers in recognised facilities.

For hospitals to know the quality of services they provide, measuring the quality of those services becomes necessary. However, measuring quality care in mental health is complex because of the involvement of many stakeholders such as doctors, patients, administrators, health insurance companies, pharmaceutical industries, and regulatory bodies. This complexity demands the need for a quality measurement framework that brings consistency, common thinking, and understanding among the team members tasked with implementing a quality improvement program. Even though many frameworks have been developed and implemented in different settings, the Donabedian quality measurement framework that focusses on structures, processes and outcomes is widely accepted and has been used to measure healthcare quality (including mental health services) in different settings (in both developed and developing countries).

Designing and implementing quality improvement (QI) programs in mental health care settings needs input from patients and service providers. Furthermore, understanding the barriers and facilitators to implementing a QI program will guide an institution to use opportunities that would facilitate the process and mitigate the barriers. Many studies that explored service users' and service providers' perceptions of care quality and established barriers to implementing quality improvement programs have been conducted in developed countries. Few studies have been done in developing countries, including Malawi, even though several studies have reported poor quality of mental health services. This study, therefore, aimed to explore perceptions of care quality among service providers and service users and identify the barriers and facilitators to implementing a quality improvement program at Zomba Mental Hospital (ZMH) in Malawi.

### **METHODS:**

This qualitative study was conducted at Zomba Mental Hospital (ZMH) which a referral government mental health facility in Malawi. The study used a purposive sampling technique and recruited nineteen participants and data saturation was achieved. Nine discharged patients (6 males and 3

females) who were waiting to be collected by family members and ten permanent providers (5 males and 5 females) were interviewed. Health care providers interviewed included: 3 psychiatric clinical officers, 2 nursing officers, 2 psychiatric nurses, 1 nurse midwife technician, and 2 patient attendants. Individual in-depth interviews were conducted in English for providers and local language Chichewa for the patients by the researcher using a semi-structured interview guide. The English language interviews were transcribed by a PhD student, while the Chichewa language interviews were translated into English before being transcribed by a research assistant who holds a Bachelor's degree and has experience in transcribing qualitative data. The transcribed data were analysed using both inductive and deductive thematic analyses. While the deductive approach maintains a link between the results of the study and its objectives, the inductive approach allows the themes to emerge from the data themselves.

## **RESULTS:**

Categorisation of perceptions of the quality of mental health services among service providers (members of staff) and service users (discharged patients) was based on the Quality Improvement (QI) framework: structures, processes of care and outcomes. The results showed more similarities than differences in the way discharged patients and members of staff perceived the quality of care at the hospital and this resulted in identifying common themes. Both positive and negative perceptions on quality of services at ZMH were found from both groups. The following themes were identified on perception of quality care at ZHM: Availability and comprehensiveness of services at outpatient department, design and ward environment (acute and rehabilitation), resources (human and material), use of seclusion rooms spaces and single rooms, patient assessment process, treatment and medical procedures (drug administration, nursing care, occupational therapy and ward rounds), free mental health services and food, and effective treatment (recovery outcomes). The perceived barriers to implementing a QI program included heavy staff workload, lack of knowledge and commitment, lack of motivation, limited resources, and resistance to change. Facilitators to QI programmes included training, availability of resources, teamwork, staff motivation, positive attitudes, innovations and collaborations, and a committed management team.

## **CONCLUSION:**

The findings on perceived care quality, barriers and facilitators to implementing QI programs from services users and service providers offers an opportunity for ZMH management to establish evidence-based improvement programs at the facility. These findings are in line with some previous studies at

the facility that focused on specific issues such as medication side effects, patient welfare and nutritional status of the patients.

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## **LIST OF ABBREVIATIONS USED IN THE DISSERTATION**

ZMH: Zomba Mental Hospital

WHO: World Health Organization

QI: Quality Improvement

DSM-5: Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition

HIV/AIDS: Human Immunodeficiency Virus /Acquired Immunodeficiency Syndrome

LMICs: Low- and Middle-Income Countries

MOH: Ministry of Health

OPD: Outpatient Department

ECT: Electroconvulsive Therapy

IOM: Institute of Medicine

ZMHDP: Zomba Mental Hospital Discharged Patient

ZMHSM: Zomba Mental Hospital Staff Member

SMMHEP: Scotland Malawi Mental Health Education Project

USA: United States of America

UK: United Kingdom

## **CHAPTER 1. INTRODUCTION**

This study was carried out to explore perceptions of care quality among service providers and service users and also to identify the barriers and facilitators to implementing a quality improvement (QI) program at Zomba Mental Hospital (ZMH) in Malawi. Chapter one presents an overview of the study, where burden of mental disorders, quality of health services, mental health services in Malawi, study rationale, aim and objectives of the study are presented. The literature review is presented in Chapter 2. Chapter three describes the research methodology in which the design, setting, data collection procedures, and data analysis are presented. Study findings are presented in chapter four. Chapter five discusses the results of the study comparing with findings of similar studies, provides recommendations and draws conclusions from this study.

### **1.1. Burden of Mental Disorders**

In 2019, the World Health Organization (WHO) estimated that 1.1 billion people (11-18%) in the world have one or more mental disorders (Balan, Moise, Moldoveanu, Moldoveanu, & Leordeanu, 2019). A mental disorder is defined by the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) as a “syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behaviour that reflects a dysfunction in the psychological, biological, or development processes underlying mental functioning” (American Psychiatric Association, 2013:20). The high prevalence of mental disorders contributes significantly to the global burden of disease - that is, the size of the impact that the health problem or disease has on a population - and can be measured in both years of life lost (mortality) and years lived with a disability (morbidity) (Mathers, Ezzati, & Lopez, 2007).

Mental disorders contribute significantly to global burden of disease; however, most countries underappreciate its effect (Kallivayalil & Enara, 2016). Due to chronic disability resulting from neuropsychiatric disorders, it is estimated that 14% of the global burden of disease, 7.4 % of lost years of healthy life are due to mental disorders and that these disorders contribute 23% of years lived with disability worldwide (Lynskey & Strang, 2013). In Africa, especially in sub-Saharan Africa, the burden of mental disorders is disproportionately larger, possibly due to civil conflicts, a high prevalence of HIV/AIDS, and increasing levels of poverty and urbanisation (Mugisha, Ssebunnya, & Kigozi, 2016). Poverty, civil conflicts, HIV/AIDS and its associated stigma are some of the causes of mental disorders.

Despite the high burden of mental disorders, most African countries especially Sub Saharan ones are known to have mental health disparities that can be attributed to various factors related to

infrastructure, psychosocial elements, and socioeconomic conditions. These factors encompass a range of issues, such as the low priority and absence of well-defined mental health policies, inadequate health infrastructure coupled with limited funding, a scarcity of trained mental health specialists, inadequate legal protection and a lack of equity, insufficient availability of evidence-based and culturally appropriate assessment and treatment approaches, the prevalence of stigma, discrimination, and human rights abuses, as well as social, environmental, and economic vulnerability (Monteiro, 2015).

Mental disorders in Malawi are recognized as significant contributors to the disease burden (Udedi, Swartz, Stewart, & Kauye, 2013) due to their high prevalence. For instance, it has been reported that approximately 29.9% of the population in Malawi may experience a mental health condition at some point in their lives (Slekiene, J., & Mosler, H. J., 2021). Among children, the estimated prevalence of mental disorders is 5.4% for the age range of 6 to 12 years and 7.9% for the age range of 13 to 17 years (Matandika, Mategula, Kasenda, Adeniyi, & Muula, 2022). The most prevalent mental health conditions in Malawi include depression, with rates of 30.3% in primary care, 10.7% for major depressive episodes, and 21.1% for minor depressive episodes in perinatal mothers, respectively (Udedi, 2014; Stewart, Umar, Tomenson, & Creed, 2014).

An additional contributor to the mental health burden in Malawi is the inclusion of epilepsy (a neurological condition normally managed by neurologists) within the spectrum of mental health disorders being addressed by mental health facilities and professionals (Lommerse, Stewart, Chilimba, van den Akker, & Lund, 2013).

### **1.2. Quality of Health Services (including mental health)**

According to Donabedian (1988), healthcare quality is defined as “the application of medical science and technology in a manner that maximises its benefit to health without correspondingly increasing the risk”. Delivering high-quality health care therefore, entails comprehensive evaluation, identification of asymptomatic and concurrent conditions, precise diagnosis, timely and suitable Quality Improvement (QI) in healthcare is defined as “the combined and unceasing efforts of treatment, referral to hospital care and surgery as necessary, and the capability to monitor the patient's progress and adapt the treatment plan accordingly (Kruk et al., 2018). Global consensus emphasizes that quality health services should incorporate the following elements: effectiveness, ensuring the provision of evidence-based healthcare services to those in need; safety, minimizing harm to the intended recipients of care and reducing the risk of unnecessary harm associated with

healthcare to an acceptable level; and people-centeredness, adopting the viewpoints of individuals, caregivers, families, and communities as active participants and beneficiaries of reliable health systems that prioritize comprehensive individual needs over specific diseases while respecting social preferences (WHO, 2018). Health systems, especially in low- and middle-income countries, need to prioritize care quality and universal health coverage to improve healthcare outcomes and reduce disparities (Braithwaite et al., 2020). However, there is a lack of consensus among scholars on the definition, indicators, and factors of healthcare service quality, with existing models mostly originating from Western contexts (Endeshaw, 2021).

Both developed and developing countries face challenges in providing quality health services. Low-income settings experience increased disease burden, resource disparities, inadequate infrastructure, limited health information systems, capacity constraints, financial limitations, and ineffective leadership (Kamau, Osuga, & Njuguna, 2017; Maphumulo & Bhengu, 2019; Oleribe et al., 2019). Conversely, studies conducted in developed countries have revealed challenges such as a higher prevalence of chronic diseases, disparities in the distribution of healthcare providers between urban and rural areas, budget constraints for maintaining the quality of healthcare services (including new technologies), shifting demographics, the introduction of new high-priced medications, and disparities in accessing optimal cancer care (Vrdoljak et al., 2021; Godman et al., 2016; Coughlin et al., 2019). As a result of these challenges, accreditation processes have emerged as voluntary programs where healthcare organizations undergo evaluation by trained external peer reviewers. These reviewers assess the organization's compliance and compare it with predetermined performance standards (Alkhenizan, Shaw, 2011).

Evaluating quality of healthcare service allows government, stakeholders and management to allocate financial resources more effectively, focusing on areas that have the greatest influence on patient perceptions of health service quality, thereby enhancing hospital operations. In recent times, health services quality has emerged as a strategic tool for creating a unique competitive advantage that is challenging for competitors to replicate, and numerous health care organizations now recognize service quality as a potential driver of sustainable competitive advantage (Al-rubaiee, & Alkaa'ida, 2011).

### **1.3. Health Services in Malawi**

The healthcare system in Malawi is structured into three levels of care: tertiary care, which includes central hospitals; secondary care, which consists of district hospitals; and primary care, which

encompasses health centers. The tertiary level of care is centrally controlled by the Ministry of Health (MOH), whereas the secondary and primary levels of care have been decentralized and are the responsibility of district councils. This decentralization allows for more localized management and delivery of healthcare services at both secondary and primary levels.

In Malawi, the healthcare system strives to provide its population with high-quality, effective, and equitable health services. However, it faces several challenges, including inadequate funding, insufficient infrastructure, limited resources (including human resources), and a significant burden of diseases. According to the WHO (2017), Malawi's average per capita spending on healthcare is approximately US\$93, and health expenditure as a percentage of the country's GDP is 11.4%. These figures indicate that the healthcare system in Malawi operates with relatively low financial resources compared to other countries. The limited funding poses challenges in ensuring the availability of necessary healthcare services, maintaining and upgrading healthcare infrastructure, and adequately addressing the healthcare needs of the population.

#### **1.4. State of mental health care in Malawi**

The western-oriented mental health care has been provided in Malawi since 1910. Initially it was managed by the prison services. In 1951, responsibility was transferred to the Ministry of Health (MOH) resulting in the creation of a national referral psychiatric hospital, Zomba Mental Hospital (ZMH) in 1953 (Kauye, 2008). Apart from ZMH, Malawi has psychiatric hospitals in the northern and central regions. These hospitals are run by the Hospitaller Order of St John of God, which provides both community and in-patient services. These hospitals cater for both private and public patients under a service level agreement between the Government and Hospitaller Order of St John of God. The government pays for all public psychiatric patients referred to these hospitals by district hospitals from Northern and central regions. District and central hospitals have mental health teams that attend to acutely sick patients, and where necessary, refer to psychiatric hospitals.

Mental health services in Malawi are designed to align with the overall structure of healthcare service delivery. However, several challenges hinder their smooth functioning. Firstly, mental health care facilities are predominantly urban-based and centralized, despite the fact that the majority of people in Malawi reside in rural areas (Kauye et al., 2011; Udedi, 2016). This centralized and urban-based setup further hampers the effective integration of mental health into primary healthcare services, where the majority of the population resides (Udedi, 2016). Secondly, the availability of mental health services is scarce, with only 0.3% of all healthcare facilities in Malawi providing such services (Udedi,

2016). Thirdly, the psychiatric inpatient bed rate is 2.56 per 100,000 people population, significantly lower than the global average of 6.5 per 100,000 people population (Barnett et al., 2018). Limited access and availability of appropriate mental health services pose further challenges (Jumbe et al., 2022).

Furthermore, there is a lack of integration of mental health services into other healthcare services, inadequate funding, and a shortage of mental health professionals. Malawi faces a severe shortage, with only 0.01 psychiatrists and 0.22 psychiatric nurses per 100,000 people (WHO, 2014). These challenges collectively compromise the quality and accessibility of mental health services for individuals with mental disorders in Malawi.

Although ZMH is a referral MH facility, it faces a number of challenges both observable and published. Apart from poor state of infrastructure such as corridors, the outpatient department (OPD) and pharmacy, and congestion in acute wards, Mhango, Kalimbira, & Mwangomba (2015) identified poor hygiene and nutrition among inpatients. Furthermore, the hospital had been associated with high rates of abscondments, high prevalence of adverse drug reactions (60% polydipsia, 50% weight gain and 35.5% spasms) secondary to typical (first generation) antipsychotics mostly being used, and poor adherence by staff to treatment standards such as procedures for electro convulsive therapy (Hayward, White, & Kauye, 2010),

Overall, these factors collectively contribute to the challenges and limitations faced by mental health services in Malawi, impacting the quality and accessibility of care for individuals in need of mental health support.

### **1.5. Study Rationale**

It is known that worldwide mental health problems contribute significantly to the global burden of disease, premature deaths, and years lived with disabilities. In African settings including Malawi, the burden is estimated to be even bigger due to high prevalence of common mental disorders such as anxiety and depression resulting from poverty and high prevalence of HIV/AIDS among other causes.

Despite the huge burden of mental disorders, accessing and providing quality mental healthcare services remains a challenge in many settings. Some institutions especially in low-income settings still provide insufficient mental health services, do not have community based mental health care, have insufficient essential medication and medical supplies, and severe shortage of key mental health care professional such as psychiatrists.

In Malawi, mental health services are centralized and urban-based, which limits accessibility, particularly for individuals in rural areas. There is a shortage of health facilities that provide mental health services, as well as a shortage of staff. Additionally, there is a low number of psychiatric beds available, and mental health services are not effectively integrated into the broader healthcare system. At ZMH, several challenges have been identified, including poor infrastructure, congestion in the wards, inadequate hygiene and nutrition among patients, high rates of patient absconding, and medication side effects. These challenges contribute to the overall difficulties faced in the provision of mental healthcare services in the country.

The challenges mentioned above raise concerns about the quality of services being provided bearing in mind the huge mental health burden which underscore the importance of QI programs and QI research in mental health. Unfortunately, research in QI in mental health is limited especially in limited resource settings such as Malawi. This narrative prompted the researcher to explore the experiences of service users (patients) as well as service providers (workers) on quality of services that ZMH provides using qualitative interviews. In order to adequately address the challenges outlined, the need to explore barriers and facilitators to QI was identified as paramount. Hence the study aims included an investigation of these. The findings will be used to help tailor QI activities that will lead to sustained improvement in mental health service delivery at ZMH.

## **1.6. Aim and Objectives**

This study aims to explore user and provider perceptions on care quality as well as to identify the barriers and facilitators to implementing a QI program at ZMH in Malawi.

### ***1.6.1. The specific objectives***

To identify discharged patients' and staff members' perceptions of care quality at ZMH.

To find out providers perceived barriers and facilitators to implementing a QI program that aims to improve the quality of mental health services.

## **CHAPTER 2. LITERATURE REVIEW**

This chapter presents a comprehensive examination of existing literature pertaining to quality of health services in mental health, measuring quality in mental health, frameworks for measurement quality in mental health, perceptions of care quality, barriers to quality improvement (QI), and facilitators of QI. A meticulous systematic literature search encompassing both published and unpublished studies was conducted to acquire relevant insights. Initially, the aim was to explore studies published from 2013 to 2020; however, due to the limited availability of articles in this particular field, the search was extended to include studies dating back to 2009. To ensure reliance on primary sources and minimize reliance on secondary sources, select older primary sources were included. The search process involved querying electronic databases such as PubMed, Scopus, and Google Scholar. Additionally, the World Health Organization (WHO) website, UNAIDS website, and institutional repositories were explored for grey literature. The final set of search results was limited to English-language publications with full-text availability.

### **2.1. Quality of services in mental health**

Different individuals and organizations have provided definitions for the quality of health services. Donabedian (1988) defines healthcare quality as the effective application of medical science and technology to maximize health benefits while minimizing associated risks. Similarly, the World Health Organization (WHO, 2020) defines it as the extent to which health services enhance the probability of achieving desired health outcomes for individuals and populations. In the context of mental health, quality of services refers to the evaluation of whether services promote desired mental health outcomes and adhere to current evidence-based practices (WHO, 2003:2). For quality mental health care to be realised, hospitals or organisations need to provide evidence-based services that achieve the intended results, are delivered in time and in an efficient way, address individual patients' needs, are easily accessible by the people including the vulnerable, involves the patients in decision making, meet patients' expectations, and are provided by qualified and competent staff in standard structures (Kilbourne, Beck, Spaeth-Rublee, et al., 2018; atkinson, et al., 2010; WHO, 2018; Svirydzienka, Ronzoni, & Dogra, 2017).

In many countries, barriers to accessing and providing quality mental healthcare are still prevalent. Cultural and religious beliefs, minimal mental health services in most low-income settings, lack of evidence-based practices, lack of community based care (37% of WHO member countries), shortage of essential psychotropic medication (20% of WHO member countries), and severe shortages of key

mental health care professionals such as psychiatrists (70% of the population in WHO member countries had access to less than one psychiatrist for every 100,000) are some of the established barriers to accessing quality mental health services especially in Low- and Middle-Income Countries (LMICs) (WHO, 2018). Furthermore, reports from LMICs suggest that 40% of patients do not receive sufficient care in psychiatric hospitals (Rathod et al., 2017). Despite the mentioned factors, there is a deliberate effort in many hospitals and organisations (both developed and developing countries) to improve the quality of mental health services, through implementation and monitoring of mental health indicators (i.e. rates of hospitalised patients, rates of mental health resources and services utilisation etc.) that are aimed at measuring and monitoring the quality of mental health care (Spaeth-Rublee, Pincus, Huynh, & IIMHL Clinical Leaders Group, 2010).

Recovering from symptoms of mental illness and improving the quality of life of people suffering from mental illness are the most desired key patients outcomes in mental health (Burns-Lynch & MUSA, 2016). For these outcomes to be realised, mental health services need to be of high quality, that is, evidence based, accessible, affordable, and targeting the needs of people suffering from mental illness (Mental Health Commission, 2005). If good quality of mental health services is associated with positive or desired patients' outcomes, one may conclude that poor quality of mental health services is likely to have negative effects on the patients' recovery from their symptoms and their quality of life.

## **2.2. Measuring quality in mental health care**

Compared to general health and health policy, there is a slower but progressive advancement in the global standardization of quality measurement or assessment for mental health care. Efforts to establish consistent measurement criteria and metrics specific to mental health care are evolving at a slower pace, reflecting the unique challenges and complexities involved in assessing and improving the quality of mental health services on a global scale (Pincus, Spaeth-Rublee, Watkins, 2011). Regularly measuring and reporting the quality of care not only enables the implementation of quality improvement initiatives at the hospital, clinic, and health system levels but also transforms health care systems and facilitates accountability mechanisms such as public reporting and the implementation of financial incentives or penalties (Kilbourne et al, 2018; Lora, 2013). However, measuring the quality of mental health care poses challenges worldwide due to variations in the organization of services across different countries and also transitioning from general standards and best practices to developing specific and actionable quality measures (Iyer, Spaeth-Rublee, Pincus, 2016). Lora (2013) indicated that clinical indicators, which are derived from evidence-based practice guidelines, offer a

potential method to routinely measure the quality of mental health services being provided. These indicators serve as measurable benchmarks that can assess the adherence to established guidelines and best practices in mental health care. By utilizing clinical indicators, healthcare providers can systematically evaluate and monitor the quality of their services, facilitating ongoing improvement and ensuring the delivery of evidence-based care to individuals with mental health needs.

### **2.3. Frameworks for Measuring Quality of Mental Health Services**

There is evidence that many institutions provide health care services that are not in line with available evidence and standards that have been agreed upon by relevant professional bodies, a situation which results in compromised quality and harm to the users (Moran, O'Connor, & Borowitz, 2013). It is against this background that efforts to measure and improve quality of general health care services have been evident for many years even though not much has been happening in mental health (Pincus, Spaeth-Rublee, & Watkins, 2011). Measuring quality of care in mental health is complex because of the involvement of many players such as mental health providers, service users, administrators and other relevant stakeholders (Kilbourne, Keyser, & Pincus, 2010). A quality measurement framework helps members of the QI team to be consistent, have common thinking, and understanding especially when implementing a complex project in a complex health care organisation (Hamilton, Jennings, & Forster, 2020). A QI team is a group of people within the practice or institution tasked with carrying out improvement efforts in an organisation. Among other tasks, the team meets periodically to review improvement data, identify areas that need to be improved, and finally execute and monitor improvements.

There are several quality measurement frameworks that have been developed by different people and organisations, such as the Six Sigma (DelliFraine, Langabeer & Nembhard, 2010), iso 9000 (Hoyle, 2006), the Donabedian (Donabedian, 1988) and the one developed by the Institute of Medicine (IOM). However, this research focused on the examination of two widely utilized frameworks in healthcare: the Donabedian framework and the framework developed by the Institute of Medicine. These frameworks were chosen for review as they are commonly employed in the field of healthcare. The Donabedian conceptual and multidimensional quality measurement framework, which focuses on structure, processes and outcomes (see table 1. Below), has been widely accepted and used to measure health care quality (Ibn El Haj, Lamrini, & Rais, 2013). Structure refers to prerequisite factors or resources for mental health care provision (Kunkel, et al, 2007); for example, wards, medication, human resources, funding and other resources. In this framework, processes are evidence-based care such as patients' physical and mental status examination, treatment, nursing care, occupational

therapy, and other services related to patient care. Outcomes refers to effects of care provided on the health status of the patients, for example regaining of functioning, reduction of psychotic symptoms, and patient's satisfaction.

On the other hand, the IOM and WHO have described six measures which include safety, effectiveness, patient centeredness, timeliness, efficiency and equitability (Kilbourne, Beck, Spaeth-Ruble, et al., 2018). These six measures aim at ensuring health services treat patients with respect, irrespective of their characteristics, and use the available resources for the intended purpose, while minimising delays. Patient safety is paramount in the health care system including psychiatric hospitals because adverse events resulting from medical intervention and errors are highly prevalent in many settings bring with it great cost to the system (Marcus, Hermann, Frankel, & Cullen, 2018).

It is important to note that these quality measurement frameworks do not oppose but rather complement each other. While the Donabedian measurement framework primarily focuses on assessing and evaluating the quality of healthcare services provided by institutions, the Institute of Medicine (IOM) framework, with its six measures, places significant emphasis on quality and patient safety as key indicators of care. Both frameworks, in turn, aim to attain favourable patients' experiences and satisfaction with healthcare services through the implementation of evidence-based practice models of care (Gentles, Khan & Gadaleta, 2019).

This study used the Donabedian quality measurement framework (Table 1) but not the IOM's six dimensions of quality because the Donabedian quality measurement focuses on the internal components of healthcare and the relationship between structure, process, and outcomes (including patient health outcomes and patient's satisfaction). The IOM framework reflects a broader angle of quality including the societal perspective, considering not only the technical aspects of care but also the patient experience and healthcare system efficiency. In this study, the utilization of the Donabedian quality measurement framework provided a valuable approach to assessing the quality of mental health services at ZMH. By applying this framework, the researchers were able to examine the quality of services from the perspectives of both service users (patients) and service providers. By adopting the Donabedian framework, this study allowed for a comprehensive assessment of the quality of mental health services at ZMH. It facilitated an understanding of the strengths and weaknesses of the healthcare structure, identified areas for improvement in care processes, and assessed the impact on patient outcomes and satisfaction.

**Table 1:** Framework for measuring mental health quality adapted from the Donabedian framework  
(Donabedian, 1988)

<b>Component of measuring quality care in mental health</b>	<b>Description of Component of measuring quality care in mental health</b>	<b>Examples of measures used</b>
<b>Structure</b>	<ul style="list-style-type: none"> <li>• Available resources that can be used to offer mental health services:               <ul style="list-style-type: none"> <li>○ Material/equipment</li> <li>○ Human resources – mental health professionals</li> <li>○ Funding</li> </ul> </li> <li>• Physical characteristics of an institution where mental health care takes place:               <ul style="list-style-type: none"> <li>○ Wards</li> <li>○ OPD etc</li> <li>○ Pharmacy</li> <li>○ Recreation</li> <li>○ Procedure rooms-ECT</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Checklist of vital materials/equipment</li> <li>• Quantity of human resources such as mental health professionals or specialists, or allied healthcare professionals, such as occupational therapists</li> <li>• Funding flows (timeliness of dispersing funding for mental health services)</li> <li>• Checklist of required infrastructure such as wards, recreation areas, occupational therapy spaces etc.</li> </ul>
<b>Process</b>	<ul style="list-style-type: none"> <li>• Evidence-based care delivered to patients.               <ul style="list-style-type: none"> <li>○ Patient assessment</li> <li>○ Medical treatment</li> <li>○ Nursing care</li> </ul> </li> <li>• All the activities taking place during the delivery of care to the patients               <ul style="list-style-type: none"> <li>○ Ward rounds</li> <li>○ Drug administration</li> <li>○ Recreation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Proportion of patients in mental health program who have documented substance use screening results</li> <li>• Receipt of adequate dose of medication or psychotherapy</li> <li>• Outpatient follow-up within 7 days after mental health hospitalization discharge</li> <li>• Proportion of admitted patients with fully documented medication administration sheets</li> <li>• Proportion of admitted patients attending occupational therapy.</li> </ul>
<b>Outcomes</b>	<ul style="list-style-type: none"> <li>• Whether the goals of treatment processes were achieved</li> <li>• Whether the care improved clinical outcomes</li> <li>• Whether providers and users were satisfied</li> </ul>	<ul style="list-style-type: none"> <li>• Functioning (e.g., assessed by WHO-DAS)</li> <li>• Employment (% patients returning to work)</li> <li>• Symptoms (e.g., depressive symptoms assessed by phq-9)</li> <li>• Recovery (e.g. assessed by IMRS)</li> <li>• Patients and provider satisfaction</li> </ul>

### **2.3. Quality Improvement in Mental Health**

Quality Improvement (QI) in healthcare is defined as many ways. Jones, Vaux, & Olsson-Brown (2019) defined QI the enhancement of patient outcomes, system performance, and professional growth achieved through a collaborative and interdisciplinary approach to implementing change. Similarly, (Batalden & Davidoff, 2007) defined QI as “the combined and unceasing efforts of everyone—healthcare professionals, patients and their families, researchers, payers, planners and educators—to make the changes that will lead to better patient outcomes (health), better system performance (care) and better professional development”. Over the course of time, the healthcare industry (including mental health) worldwide confronts ongoing difficulties regarding the quality of healthcare services and the safety of both patients and providers Dixon-Woods & Martin (2016). Furthermore, there are notable changes in pattern of medical conditions including pandemics and expectations of both healthcare providers and patients. These changes require both providers and patients to have a good understanding of QI. The definition of healthcare quality is no longer solely determined by healthcare providers, hence Successful QI depends on the collaboration among providers and patients (Jones, et al, 2019). Good quality health services meet expectations of both patients and other stakeholder’s including providers.

Today, many QI programs in health care (including mental health) around the world, are geared towards making fundamental and sustainable changes (Kaplan, Provost, Froehle, & Margolis, 2012; van de Steeg, Langelaan, Ijkema, & Wagner, 2013). Continuous QI in mental health care facilities is essential as these are areas of high risk for both patients and providers due to the nature of mental illness. QI encompasses many areas in mental health settings and ensures that up-to-date services and desired outcomes in people suffering from mental disorders are being achieved (Funk, Lund, Freeman, & Drew, 2009).

With the objective of developing international guidance for QI in mental health, primarily targeting LMICs, Funk et al. (2009) recommended the following five key issues that QI should prioritize: "alignment of policy and legislation with attainment of good quality mental health outcomes, key partners must be brought into the QI process, funding to be correctly aligned to meet policy objectives and promote evidence-based interventions, accreditation procedure and quality standards to be carefully developed, and bringing quality improvement into routine service management and delivery."

QI interventions in mental health care encompass a range of strategies aimed at enhancing service provision and improving patient outcomes (Valleru, Krishna, & Fristad, 2019). Some notable examples include reducing psychotropic side effects, improving the management of mental disorders in hospital settings, minimizing readmission rates in psychiatric hospitals, enhancing documentation and medical record keeping, and decreasing errors in medication administration. It is worth noting that the majority of these interventions have primarily been implemented in developed countries.

In the systematic review conducted by Sukhawathanakul, Paweena et al. (2021), which focused on exploring the effectiveness of psychotherapeutic interventions as a QI strategy specifically for individuals with dementia, the findings consistently demonstrated that implementing psychotherapeutic interventions resulted in a significant reduction in depressive symptoms, which emerged as the most frequently observed treatment outcome. These findings further support the efficacy of psychotherapeutic interventions in promoting acceptance and adaptation among older adults with cognitive impairment, particularly in relation to alleviating depressive symptoms.

When services are improved, hospitals become successful in achieving desired patient outcomes such as improved patient satisfaction and more effective treatment of mental disorders (Batalden & Davidoff, 2007). QI enables the mental health system to focus on protecting the dignity of patients, offering evidence-based services that are accepted by the people and community, and providing interventions that assist people with mental disorders to cope with their conditions. When countries and organisations successfully implement QI initiatives, it becomes possible to provide recommended mental health interventions that satisfy all stakeholders in mental health using the available limited resources (Funk et al., 2009).

A supportive environment that encourages cooperation between patients and healthcare providers is essential for QI in healthcare (Mosadeghrad, 2014). Mosadeghrad suggested that quality health services can be achieved by ensuring that the following five factors are present: (1) leadership that has a vision and supports the teams; (2) availability of required plans that are successfully implemented; (3) skilled health care providers with good education and training; (4) adequate resources that are managed effectively; and (5) good communication and understanding among healthcare providers.

In LMICs, a number of challenges in providing quality mental health services have been identified by the WHO and the challenges may also hamper QI efforts. These include the absence of a mental health policy, poor mental health governance, lack of reporting mental health indicators, inadequate

financial resources to support the services, lack of mental health prevention and promotion strategies, poor infrastructure and referral systems, and lack of psychotherapeutic interventions as part of the mainstream treatment options (WHO, 2018; Rathod et al., 2017). Furthermore, only 72% of WHO member states have a stand-alone mental health policy or plan, only 57% have a stand-alone mental health law, 80% of funds for mental health in most countries are spent on mental hospitals instead of community and preventive services, and the number of mental health workers per 100,000 population is <1 in low-income countries compared to 57 in high-income countries (WHO, 2018).

Leadership challenges, lack of training, poor supportive supervision, high staff turnover, and lack of resources such as finances, lack of knowledge, organizational culture, poor communication, poor implementation climate, poor implementers attitudes and beliefs, and poor information systems are some of the barriers to implementing a QI project in most mental health care settings (Brunette et al., 2008)

#### **2.4. Perceptions of Health Care Quality**

Perception can be described as the mechanism through which an individual interprets and structure sensory information to create a coherent and meaningful understanding of the surrounding (Lindsay & Norman, 1977). When individuals interpret information, their past experiences play a significant role. As Lindsay et al. (1977) pointed out, the way in which an individual interprets or perceives something can differ significantly from the actual reality of the situation.

In low income settings including in sub-Saharan Africa, most healthcare systems are under-resourced and less able to provide effective, equitable care compared to those in the developed world due to lack of staff training, poor knowledge on the use of evidence-based protocols or standard treatment guidelines, poor multidisciplinary approaches to managing mental health conditions and lack of QI initiatives (Islam et al., 2015). These factors are likely to have an impact on user (patients) and caregiver (health workers) perceptions of the quality of health services. Knowing and understanding patients' perceptions of quality care is important for efficient and effective service provision, as it addresses their perceptions of the expertise of staff as well as outcomes of their illnesses (Hopkins, Loeb, & Fick, 2009; Roberta, Dana, & Sheneeta, 2015).

Many studies have been conducted in different settings in both developed and developing countries to explore the perceptions of health care quality (see Table 2). However, very few studies have focused specifically on mental healthcare. In the reviewed studies, several commonly reported factors associated with poor quality of services in healthcare settings were identified. These factors include

poor hospital structure and environment, staff shortages, lack of training, attitudes of healthcare workers, limited resources, lack of physical activities in the wards, inadequate supervision, and poor relationships between patients and healthcare providers (Abuosi, Domfeh, Abor, & Nketiah-Amponsah, 2016; Al Mousa, Callaghan, Michail, & Caswell, 2020; Anabila, Kumi Desmond, & Anome, 2019; Islam et al., 2015; Kiguli et al., 2009; Padma, Rajendran, & Sai Lokachari, 2010; Roberta et al., 2015; Spencer, Foster, Whittamore, Goldberg, & Harwood, 2013; Way, Sawyer, Kahkejian, Moffitt, & Lilly, 2007).

In terms of poor hospital structures and environment, studies conducted in mental health care settings have established that challenges with the physical infrastructure and overall environment of healthcare facilities, especially in wards, were perceived as contributors to poor quality of services. Issues such as inadequate facilities, outdated equipment, and substandard conditions that impact patient care were among the isolated concerns. Staff shortages and lack of training: Insufficient staffing levels and a lack of training were identified as factors that negatively impact the quality of healthcare services. When healthcare professionals are overburdened or inadequately trained, it can affect their ability to effectively manage patients' conditions.

The attitudes and behaviours of healthcare workers were recognized as crucial factors influencing the quality of care provided. Regardless of the study setting (mental health or general, developed or developing countries), experiences of health care providers' negative attitudes, lack of empathy, or poor communication skills were viewed to contribute to suboptimal care experiences.

All studies conducted in low income countries established limited resources as a contributor to perceived poor quality of health care services. Inadequate or unavailability of drugs and medical supplies, shortage of human resources including key health care personnel and limited funding were the main reported factors impacting service quality. These studies pointed out that insufficient resources can hinder the delivery of timely and appropriate health care.

Lack of physical and recreational activities in mental health care settings was also established an established factor that contributed to perceived poor quality of mental health services. Studies in Saudi Arabia, United Kingdom and Uganda highlighted that physical activities programs and recreational spaces promote holistic well-being of patients and providing opportunities for engagement and recreation.

On supervision challenges, some providers in general health care in Bangladesh perceived that poor supervision enabled some health care workers not able to abide to established standards of care hence affecting quality of services provided. Inadequate supervision lead to a lack of accountability and quality control within healthcare settings.

The quality of the relationship between patients and caregivers was identified as significant in the reviewed studies as well. Factors such as communication barriers, lack of trust, or inadequate involvement of patients in their care impacted the overall quality of services.

In summary, the studies point out several common factors related to poor quality of services, such as poor hospital structures, staff shortages, limited resources, and negative attitudes of healthcare workers. Additionally, less commonly reported factors include lack of interactions between staff and patients, poor accessibility of services, and patient's boredom from a lack of activities. Understanding these factors can help healthcare providers and policymakers address the underlying issues and work towards improving the quality of healthcare services.

**Table 2:** *Perceptions of health care quality*

Country	Reference	Study Population and settings	Findings on Perceptions of Care Quality
Saudi Arabia	(Al Mousa et al., 2020)	Mental health setting (Hospitals): Service users (Psychiatric Patients) that were admitted to Kingdom of Saudi Arabia referral mental hospital	<p>In this study, where a theoretical understanding of issues pertinent to the quality of mental health care in the Kingdom of Saudi Arabia from patients’ perspective, the following five themes were established:</p> <ul style="list-style-type: none"> <li>• The hospital as a prison: users perceived that there were delays in discharging patients from the hospital, patients were feeling as if they were imprisoned in the hospital, there were no meaningful activities in the wards and the patients were being punished by the providers.</li> <li>• Quality of interactions: users reported challenges with communication from providers, with some displaying unprofessional behaviours such as giving instructions to and showing stigma towards users.</li> <li>• Quality of services: users were satisfied with mental health services, unsatisfied, or only partially satisfied.</li> <li>• Staff quality: users had both positive and negative perceptions about quality of nurses and physician at the facility. The</li> </ul>

Country	Reference	Study Population and settings	Findings on Perceptions of Care Quality
			<p>perceived quality was based on qualification, skills and competency.</p> <ul style="list-style-type: none"> <li>•</li> </ul>
United Kingdom	(Spencer et al., 2013)	Mental health setting (Mental hospitals): Forty family carers of patients with cognitive impairment who were admitted to mental hospital over a 4-month period took part in the study. Their experiences of quality of care explored	<p>Carer's perceptions of quality of care were categories in the following themes:</p> <ul style="list-style-type: none"> <li>• Lack of ward activities for patients and boredom.</li> <li>• Staff knowledge of dementia and delivery of professional care such as dealing with confused patients, guiding wondering patients, and patients' observation.</li> <li>• Ward environment (in relation to cleanliness)</li> <li>• Communication between staff and carers.</li> </ul>
United States of America	(Way et al., 2007)	Mental health setting (Prison mental health clinics): Psychiatric patients who were receiving mental health treatment in 21 prisons. Patients completed anonymous survey.	<p>The following were the finding on perceptions of quality of care:</p> <ul style="list-style-type: none"> <li>• Access to clinical staff: availability of mental health practitioners was perceived as quality of services.</li> <li>• Involvement with treatment decisions: most patients pointed out that mental health practitioners were always involving patients in decision making regarding their treatment.</li> <li>• Perceived benefit from treatment: Majority were of the view that the treatment they received was effective contributing to perception of quality health care.</li> </ul>

Country	Reference	Study Population and settings	Findings on Perceptions of Care Quality
	(Roberta et al., 2015)	General health setting (General Hospitals): Data from a multi-specialty Medical Practice Group on Patient satisfaction were analysed. Regression analysis and paired comparisons were used get an understanding of patient's perceptions of quality of care.	<p>The following themes were perceived to affect quality of health services:</p> <ul style="list-style-type: none"> <li>• Access to care: helpfulness, promptness, courtesy, convenience, ease of reaching the clinic by phone and ease of scheduling appointments were perceived to affect access to care</li> <li>• Moving Through the Visit: this theme described activities associated with clinic visits. For example, the surrounding, time spent at the clinic, and interaction between provider and patients. In their study, speed of registration; waiting times; information about delays; comfort and pleasantness of waiting room and exam room were perceived to affect moving through the clinic.</li> <li>• Attitude of Care Provider (Nurses and Nurse assistants): examples given in this theme were friendliness, courtesy, concern of care provider; explanations, instructions and information given to patients, the use of clear language; and time spent with patient.</li> <li>• Personal Issues: personal cleanliness, personal safety, personal security, privacy, sensitivity to patient needs, and pain control we issues that affected the perception of quality of care.</li> </ul>

Country	Reference	Study Population and settings	Findings on Perceptions of Care Quality
Uganda	(Kiguli et al., 2009)	Community Health setting: Community members from various socio-economic backgrounds and key informants who were utilizing health services (including mental health) in Iganga and Bushenyi districts. Data was collected through eight focus group discussions, six in-depth interviews and 12 key informants	<p>The study established factors affecting quality of services from the perspective of both community members and key informants.</p> <ul style="list-style-type: none"> <li>• Inadequate numbers of health care providers and support staff, shortage of essential drugs, poor attitude of the health workers, high health care costs and long distances to the health facilities were perceived to contribute to poor quality of services from the perspective of community members.</li> <li>• From key informants who were opinion leaders, local politicians and health workers, the following were the factors: lack of qualified staff, rude health workers, inadequate health budgets, inadequate health staff, lack of essential drugs, corruption and dilapidated health infrastructure.</li> </ul>
Ghana	(Abuosi et al., 2016)	General health setting (General hospital): Patients who were utilising health care both government and private in three regions	<p>The major quality of care concerns affecting all patients were:</p> <ul style="list-style-type: none"> <li>• inadequate resources including human (especially lack of doctors)</li> <li>• shortage of drugs, medical supplies and basic medical equipment.</li> </ul>
Bangladesh	(Islam et al., 2015)	General Health setting (General hospital): Health care providers and patients who were utilising health care services in 2 district and 12 sub-district hospitals in Thakurgaon and Jamalpur. From the health care providers, factors affecting quality of health services were explored. On	<p>Factors affecting perceptions of quality of services were explored from health care workers: the following were established factors from health care providers:</p> <ul style="list-style-type: none"> <li>• Shortage of medical staff or personnel</li> <li>• Heavy workload</li> <li>• Overcrowding</li> <li>• Inadequate logistics and laboratory support</li> <li>• Unable to follow patient-management protocols</li> </ul>

Country	Reference	Study Population and settings	Findings on Perceptions of Care Quality
		the other client's satisfaction was explored from the patients who utilised services. This was done through exit interviews.	<ul style="list-style-type: none"> <li>• Lack of training,</li> <li>• Insufficient supervision</li> </ul>

## **2.5. Barriers to Implementing QI Programs in Mental Health Services.**

Even though there are indications of progress in mental health service development in LMICs and that QI programs are being implemented in many areas, barriers to implementing QI of services are still prevalent (Gleacher, et al., 2016; Kotte, et al., 2016). It is important to note that different contexts may have different challenges hence barriers may not be the same.

Various barriers to QI have been identified and are presented in Table 3. These barriers can be classified into three main categories: (1) challenges related to quality improvement implementers, (2) obstacles associated with organizations, and (3) issues stemming from the healthcare system itself (Addington, Kyle, Desai, & Wang, 2010). In this context, the term "implementer" refers to individuals who are responsible for executing a plan or system, while "organization" and "system" pertain to the institutions or settings where the quality improvement (QI) program is implemented and the broader healthcare network, respectively.

### ***2.5.1. Quality improvement implementers***

The term 'quality improvement implementers' refers to people or workers who use quality improvement science and implementation research to improve health care and health outcomes of patients (Tyler & Glasgow, 2021). These are the people that drive the whole process of QI, from designing and implementation to evaluation.

The reviewed literature has focused on three main barriers to quality improvement that are associated with implementers: inadequate leadership or poor leadership skills, resistance to change, and lack of time and training for the implementers.

Poor leadership was established as a barrier in studies conducted in developed countries. In the United Kingdom, an analysis of evaluation reports from five health foundations identified ten key challenges to improving the quality of healthcare (Dixon-Woods, McNicol, & Martin, 2012). Among these barriers, poor leadership skills were highlighted, including a lack of authority to implement change, inadequate supportive supervision, difficulties in prioritizing competing priorities, challenges in motivating improvement teams, lack of clear direction and vision, ambiguity in managers' roles and responsibilities, favoritism, and insufficient staff engagement during the implementation of improvement changes.

Similarly, a systematic review conducted by researchers in the USA (Alexander et al., 2022) identified leadership as a barrier to nurses' engagement in quality improvement (QI) programs in clinical

settings. The article highlighted issues such as leadership turnover, inadequate support from managers and leaders, and leaders prioritizing operational concerns over the integration of quality improvement efforts

Resistance to change, inflexibility and doubts among implementers of QI, especially doctors and nurses, are further barriers that have been established. Studies showed that personal attitudes towards change or improvement, misunderstanding aims of the improvements and disliking the methods of implementing change processes contributes to resistance (Mills et al., 2019; Jordan, Bowers, Morton, 2016; Russ et al., 2015; Solomons & Spross, 2011; & Alexander et al., 2022). When there is resistance to change in an organisation, it becomes more difficult to convince workers that the existing problem is relevant to them, and that the chosen solution would bring the intended improvement (Dixon-Woods et al., 2012).

Time or duration of QI and training and skills of the implementers can also bring challenges to successful QI. A number of studies have found that inadequate training of workers in organisations and lack of time for QI due to other equally demanding tasks contributed significantly to unsuccessful QI programs (Mills et al., 2019; Svirydzenka et al., 2017; Byron, et al., 2015; Solomons & Spross, 2011; Jordan, Bowers, & Morton, 2016; Blok, Alexander, Tschannen, & Milne, 2022).

### ***2.5.2. Organisational barriers to quality improvement***

The second source of barriers to QI is related to the nature of the organisation implementing change. A number of studies (Smith, Lawrence, Sadler, & Easter, 2019; Byron, et al., 2015; Saraceno et al., 2007; Sulaberidze, Green, Chikovani, Uchaneishvili, & Gotsadze, 2018; Svirydzenka et al., 2017; Jordan, Bowers, Morton, 2016) found that it became difficult for an organisation to successfully implement QI when it is isolated from other organisations facing similar challenges, when the leadership is not able to support the team implementing the QI, there is fragmentation of services being provided, has limited funding, misallocates and mismanages resources, is not flexible with the available resources, is not able to utilise the resources for QI in a timely manner and does not diversify mental health workforce and services. Furthermore, an organisational culture that does not promote new ideas, produces and manages data poorly and lacks the capacity to implement change is likely to fail in its QI efforts.

### ***2.5.3. Health care system barriers associated with quality improvement***

The third source of barriers to QI is the healthcare system itself. Because the system is very complex, implementing change processes successfully becomes difficult. Strictness and lack of flexibility of standards in the system (especially for doctors and nurses), complexity of the interventions in medical field, lack of accountability (especially in low income countries), unwillingness to decentralise (especially mental health services), and challenges with implementation of mental health care in primary-care settings were some of the barriers that related to the health care systems found in many settings ( Svirydzenka, Ronzoni, & Dogra, 2017; Saraceno et al., 2007; Zhou et al., 2022).

**Table 3: Barriers to QI**

Country	References	Study Population and setting	Findings on Barriers to implementing QI programs
United Kingdom	(Dixon-Woods, McNicol, & Martin, 2012)	Evaluation of reports from five health foundation programmes namely: Safer Patients Initiative, Leadership programmes (2008-11), Leadership programmes (2003-07), Engaging with Quality Initiative and Engaging with Quality in Primary Care	<p>Results from the evaluated reports found the following barriers:</p> <ul style="list-style-type: none"> <li>• Convincing implementers of improvement that there is a problem that is relevant to them, and that the solutions chosen will bring improvements;</li> <li>• Lack of QI data collection and monitoring systems;</li> <li>• Unrealistic goals and ambitions for an improvement program</li> <li>• Organisational cultures that don't promote new ideas</li> <li>• Lack of capacity and understanding of the context for implementing change</li> <li>• Favouritism and lack of staff engagement when introducing improvement</li> <li>• Poor leadership skills</li> <li>• Lack of ensuring improvement sustainability</li> <li>• Risk of unintended improvement consequences.</li> </ul>
	Svirydzienka, Ronzoni, & N. Dogra, 2017	Patients, carers, clinical staff, and NHS commissioners in community child and Adolescent Mental health services	<ul style="list-style-type: none"> <li>• Challenges with definition of quality</li> <li>• Challenges with measurements and implementation of QI programs</li> <li>• Limited resources for the QI programs</li> <li>• Lack of accountability</li> <li>• Limited training of the quality implementers.</li> </ul>
United States of America	Solomons & Spross, 2011	Systematic review (23 studies in hospitals and community settings across healthcare services industry)	<ul style="list-style-type: none"> <li>• Inadequate time for QI implementation</li> <li>• Inflexibility to change.</li> </ul>

Country	References	Study Population and setting	Findings on Barriers to implementing QI programs
	Sulaberidze, Green, Chikovani, Uchaneishvili, & Gotsadze, 2018	Key stakeholders: managers, healthcare professionals, patients and guardians from mental health care settings (both hospital and community) in Georgia	<ul style="list-style-type: none"> <li>• Lack of diversification of the mental health workforce and services</li> <li>• Inflexible resources</li> <li>• Limited provision of mental health services across the country</li> <li>• Lack of assessment and quality service of delivery</li> <li>• Out of pocket payments for purchasing high quality medication</li> <li>• Lack of transportation to access mental health services.</li> </ul>
	Luxford et al., 2011	Senior staff and patient representatives from organizations (Hospitals and community services) that had a widely recognized reputation for improving the patient care experience.	<ul style="list-style-type: none"> <li>• The need to change organizational culture to accommodate change</li> <li>• lack of enough time to accommodate change.</li> </ul>
	Blok, Alexander, Tschannen, & Milne, 2022	Nurses (clinical and nurse leaders) working in 66 health care sites (Both in-patient and community services in US geographic region (10 Northeast, 17 Southeast, 35 Midwest, 4 West)	<ul style="list-style-type: none"> <li>• Time limitations</li> <li>• Heavy workload</li> <li>• Limited resources</li> </ul>
	Alexander, Tschannen, Hays, Clouse, Zellefrow, Amer, & Milner, 2022	Systematic review. Studies focused on nurse participating in QI, such as team member, project lead, and/or	<ul style="list-style-type: none"> <li>• Leadership challenges (turn over, lack of support, prioritisation of operations over integration,</li> <li>• Education and training challenges (lack of continuous training and lack of general knowledge on QI)</li> </ul>

Country	References	Study Population and setting	Findings on Barriers to implementing QI programs
		project developer in both hospitals and community settings	<ul style="list-style-type: none"> <li>• Resource constraints for collecting data and writing reports</li> <li>• Bad culture of nurses implementing QI which included: lack of ownership and resistant to change</li> <li>• Lack of time to implement QI resulting into lack of prioritisation of QI programs,</li> </ul>
Low and Middle Income Countries	Saraceno et al., 2007	International mental health experts and leaders with experience and knowledge of low-income and middle-income countries (Both mental hospitals and community services)	<ul style="list-style-type: none"> <li>• Challenges with funding</li> <li>• complex Health care systems and resistance to decentralisation of mental health services</li> <li>• Challenges with implementation of mental health care in primary-care settings</li> <li>• Inadequate training and supervision in mental health</li> <li>• Lack of good leadership in mental health services.</li> </ul>
South Africa	Jordan, Bowers, Morton, 2016	Professional nurses working in private ICU in Eastern Cape	<ul style="list-style-type: none"> <li>• Barriers include a lack of knowledge about evidence-based practice</li> <li>• Individual perceptions influencing clinical decision-making</li> <li>• Limited access to necessary information</li> <li>• Insufficient sources for accessing knowledge on evidence based practices</li> <li>• Difficulty in synthesizing and understanding available literature</li> <li>• Resistance to embracing change.</li> <li>• Lack of resources was a barrier to the implementation</li> <li>• Insufficient time to implement</li> <li>• Increased workload</li> </ul>
China	Zhou et al., 2022	Hospital directors and coordinators (Doctors and nurses)	<ul style="list-style-type: none"> <li>• Complexity of the intervention.</li> <li>• Inflexibility of the requirements or criteria used in the QI programs.</li> <li>• Insufficient knowledge among participating patients.</li> <li>• Limited support from the government;</li> </ul>

Country	References	Study Population and setting	Findings on Barriers to implementing QI programs
			<ul style="list-style-type: none"> <li>• Staff turnover within department implementing QI program.</li> <li>• Resistance from departments involved in the intervention.</li> <li>• Excessive workload or responsibilities among staff implementing the QI program.</li> <li>• Insufficient resources</li> <li>• Maintaining adherence and continuity in implementing the intervention.</li> </ul>

The evaluated published articles have identified numerous barriers to implementing a QI across healthcare settings including mental health. These barriers comprise a wide range of challenges and include convincing implementers of the relevance of the problem and the effectiveness of chosen solutions, a lack of robust data collection and monitoring systems for quality improvement, setting unrealistic goals and ambitions for improvement programs, organizational cultures that hinder the promotion of new ideas, limited capacity and understanding of the context for change implementation, favoritism and lack of staff engagement during improvement initiatives, inadequate leadership skills, challenges in ensuring sustainability of improvements, the risk of unintended consequences on new interventions, difficulties in defining quality and measuring progress, limited resources and funding, insufficient accountability, inadequate training and supervision, resistance to change, limited access to necessary information and evidence-based practices, difficulties in synthesizing and understanding available literature, insufficient resources and time for implementation, complex healthcare systems and resistance to decentralization, challenges in mental health service provision, lack of knowledge and support for evidence-based practices, staff turnover and resistance to change, excessive workload, and maintaining adherence and continuity in implementing interventions. These barriers highlight the multifaceted nature of challenges faced in healthcare, emphasizing the need for comprehensive approaches to overcome them and drive meaningful improvements in quality of care.

All the above barriers to QI and challenges with quality mental health services exist despite the fact that the field of quality health assessment and improvement that aimed at bringing the effort to improve efficiency and effectiveness of health services started more than fifty years ago (Druss, 2018).

## **2.6. Facilitators of QI in Health Care**

Even though barriers that hinder QI in organisations are still prevalent, studies have found some factors that facilitate it.

Some studies found that to convince people to take part in QI and successfully implement the desired change, stakeholders need to be presented with evidence that shows that the desired change is needed and that it will work (Dixon-Woods et al., 2012). Dixon-Woods et al. (2012) established that the providing evidence that the desired improvement is taking place, the use of correct data, and clear facts that demonstrate the advantages of the implemented solutions were facilitators of the successful QI programs. However, a number of other factors are also important. Factors such as patient-centred services that are based on individual patient's needs; powerful, skilled and committed

leadership; good and clear communication; collaboration of patients and guardians and health workers; motivated and satisfied health care workers; active feedback mechanisms; availability of resources including finance; accountability; open mindsets in learning new ideas, and capacity building are some of the established facilitators to QI (Benning et al., 2011; Alexander et al., 2022).

From the reviewed literature, it has been established that improving quality of services is very important not only in mental health care settings, but general health care as well. It is crucial to assess perceptions of care quality and factors that affect implementation of QI programs in Mental health because quality assessment in mental health tends to put more emphasis on clinical outcomes than patients' experiences (Druss, 2018). Similarly, understanding barriers and facilitators to implementing QI programs in health care settings is important because successful implementation of such programmes depend on knowledge of factors likely to bring challenges or successes and the environment where the QI program will be implemented (Sommerbakk, Haugen, Tjora, Kaasa, & Hjerstad, 2016). However, the existing analysis of literature in this study has identified a gap in research when it comes to assessing the perceived quality of care in in-patient mental health care settings. This gap particularly pertains to the perspectives of both patients and providers, and it is especially noticeable in low-income countries like Malawi. Additionally, studies investigating barriers and facilitators to implementing quality improvement (QI) programs have primarily focused on general health care settings in developed countries, with a specific emphasis on nurses rather than all healthcare providers. This gap presents an opportunity for this study to be conducted in the context of mental health care in low-income countries, encompassing both nurses and other clinical and support staff. Therefore, the objective of this study is to fill this gap by examining the perceived quality of mental health services at ZMH (insert full name of the facility), and identifying the barriers and facilitators associated with the implementation of QI programs aimed at enhancing these services.

## CHAPTER 3. METHODOLOGY

### 3.1. Study Design

This cross-sectional study used a qualitative study design. A qualitative study design enables researchers to collect detailed narrative descriptive data from participants in order to understand experiences of participants, concerns and desires associated with the subject at hand and the opportunity to identify obstacles to growth and change (Polit and Berk, 2004: 113). In this study, narrative descriptions helped to elicit participants' perceptions to achieve the goals and objectives of the study which are; understanding the perceptions of patients and provider on quality of care at ZMH; and exploring barriers and facilitators of implementing a QI program at the facility. Semi-structured interview guides (see Appendices C&D) were used to interview discharged patients, at the time of discharge, as well as key providers (clinicians, nurses and a junior cadre [patient attendants]).

### 3.2. Study Setting

The study was conducted at Zomba Mental Hospital (ZMH) in Zomba, Malawi, which is a landlocked country bordered by Zambia, Tanzania, and Mozambique (**refer to Figure 1 and Appendix H for geographical representation**). The country is divided into three regions, Northern, Central and Southern and ZMH is situated in the Southern region.

Malawi is one of the poorest countries in Southern Africa with three-fifths of the population being unable to meet their daily needs (Bandyopadhyay, Shyamsundar, & Baccini, 2011). According to data from the World Bank (2022), the Gross Domestic Product (GDP) of Malawi in 2021 was reported to be 635 United States Dollars (USD) per capita per annum. In 2016, the percentage of Malawians living below the international poverty line of 1.90 USD per day was 70.3 percent.

The 2015-2016 Malawi Demographic and Health Survey (MDHS) indicated that almost half of the population, approximately 48%, were under the age of 15. Among children under 18 years old, 12% were orphans, having lost one or both parents, and one in five children were not living with their biological parents. The total fertility rate was reported to be at 4.4 children per woman, and 29% of women aged 15-19 had already given birth. On child nutrition, 37% of children under 5 years old were reported to be stunted, 3% wasted, 12% underweight, and 5% overweight. The prevalence of HIV infection was substantial, affecting 8.8% of men and women aged 15-49.

Zomba city, where ZMH is located, is 70 km northeast of the business capital, Blantyre. ZMH is the only government tertiary mental health facility in Malawi where psychiatric patients from the southern region, and those referred from the northern and central regions, are admitted.

ZMH is a 333-bed referral psychiatric hospital in Malawi. The hospital provides tertiary services that includes acute and long-stay inpatient care, outpatient care, forensic services, rehabilitation, electro convulsive therapy (ECT) and occupational therapy. The institution admits an average of 2000 patients every year, with an average of six admissions per day (Udedi, 2014). Being a referral mental hospital, it treats almost all psychiatric conditions prevalent in Malawi. However, the most frequent diagnoses of patients that are admitted are schizophrenia, bipolar affective disorder, intellectual disability, epilepsy, substance-related and HIV-related conditions (Kauye & Mafuta, 2007). There are eight wards at the facility: three acute wards, three rehabilitation wards, an infirmary ward and a private ward. The hospital has the following cadres involved in direct management of both in- and out-patients: Psychiatrists (Medical Doctor specialised in mental health and psychiatry); Psychiatric Clinical Officers (Clinical Officers specialised in mental health); Mental Health Registered Nurses (Nurses holding Bachelor's Degrees and specialised in mental health nursing); Registered Nurses (Bachelors or University Diploma in Nursing holders); Nurse Midwife technicians (College Diploma in Nursing and Midwives holders); Psychiatric Nurses (Nurse Midwife Technicians with certificate in psychiatric nursing); Rehabilitation Technicians (providers who hold diploma in Medical Rehabilitation); Patient Attendants (providers involved in day to day patient activities such as feeding, bathing, and assisting patients in the wards); Hospital Attendants (providers involved in cleaning the hospital), and Guards (contracted out staff who provide security at the facility). In the dissertation, the researcher acknowledges that the information about ZMH was sourced from a publication that is 10 years old. However, given the absence of recent publications, the researcher believes that these sources still provide an accurate representation of the hospital based on his recent experience of ZMH.

During the timeframe of this study at ZMH, the researcher collaborated with the ZMH team, in partnership with the University of Malawi College of Medicine through the Scotland Malawi Mental Health Education Program (SMMHEP), to implement the Consolidating Psychiatry Capacity Development in Malawi and Zambia (CPMZ) project. This project aimed to enhance the quality of mental health service delivery at ZMH in Malawi and Chainama Psychiatric Hospital in Zambia. It is important to note that the project was in its initial phase, and the findings from this study provided valuable insights to the team regarding the key areas that required prioritized improvement.

At ZMH, the project was focusing on supporting the hospital to develop QI teams that were responsible in identifying areas that needed improvement, lead different departments and wards in implementing QI projects, and developing appropriate standards of both clinical and nursing care through standard-setting and audit.

The results of this research therefore aimed at providing inputs and valuable data (from patients and providers perspective) to the QI team and ZMH management team regarding the areas that need urgent improvement at the facility. Some of findings helped the established QI teams to come up with more focused QI projects in areas of patient's safety, hygiene, nutrition and material management (Clothes and linen).

**Figure 1: Map of Malawi showing the study site**



### **3.3. Study Participants**

Discharged patients who were waiting to be picked up from the hospital by their relatives or referring institutions, and key providers took part in the study. In addition, management members and the hospital director were engaged as participants reported some sensitive information that needed to be addressed with urgency.

#### ***3.3.1. Inclusion criteria for discharged patients***

- Discharged patients who were admitted in general psychiatric wards for two weeks or more and were waiting to be picked up by guardians or respective referring hospitals.
- Discharged patients that were 18 years older and certified to be mentally fit after the ward nurse or Clinician's assessment.

#### ***3.3.2. Exclusion criteria for patients***

- Patients who had residual or active psychotic symptoms rendering them incapable of consenting.
- Patients who had a diagnosis of dementia or learning disabilities.
- Forensic psychiatric patients (those suspected of committing crimes or been found guilty of crimes).

#### ***3.3.3. Inclusion criteria for members of staff***

- Permanent providers who had worked at ZMH for one year or more.
- The following cadres of staff were involved in the study to represent different levels of seniority and varying views and experiences: clinicians, nurses and patient attendants.
- Providers involved in the QI program and those deemed to be able to provide relevant information.

#### ***3.3.4. Exclusion criteria for members of staff***

- Providers who were working on a locum (part time) basis or seconded (working at the hospital but employed by other institutions such as teaching institutions).

### **3.4. Participants recruitment and Data Collection Procedures**

Data collection occurred during the months of January and February in the year 2020. Individuals who met the predetermined criteria were approached and provided with comprehensive information about the study through the information sheet given to them. Once the participants had a clear

understanding of the study details, they were requested to provide their consent by signing an informed consent form. Following the consent process, the participants underwent interviews using the provided interview guide.

The plan was to recruit equal numbers of males and females for both providers and discharged patients; however, it was not possible for discharged patients because ZMH has two male acute wards and two male rehabilitation wards compared to one female acute ward and one female rehabilitation ward. Therefore, there were more male discharged patients than female discharged patients meeting the criteria. About a quarter of the discharged patients (during the time of data collection) did not meet the criteria because of their active psychotic symptoms determined by the ward's clinicians and nurses (through mental health assessment). For members of staff, an equal number of male and female participants were recruited and all who met the criteria and signed the informed consent took part in the study.

No participant who gave initial consent to take part withdrew from the study. However, four discharged patients who had consented to take part in the study were withdrawn by the researcher because of lack of understanding of the questions with the patients giving irrelevant responses. These four participants were deemed unfit to participate after reassessment by ward mental health clinician, however, they were replaced with others who met the criteria, consented, and were fit to take part in the study. Furthermore, three providers who were approached refused to take part in the study because they were not comfortable with this study and their choices were respected.

Nine discharged patients comprising both men and women were purposively selected, based on the inclusion criteria and length of stay. Those with multiple admissions or who had stayed in the hospital longer were deemed to have more experience with services, hence were prioritised. Ten providers that were involved in QI programs and those that were deemed to provide more information (providers with high experience of working at ZMH, middle managers such as those in charge of wards, and those deemed have closer contact with patients such as patient attendants and clinicians) were also purposively sampled and interviewed. During the in-depth interviews with the ninth and tenth participants who were providers, the researcher noticed a recurring pattern of the same issues and themes emerging. This indicated that the capacity to gather additional new information had been reached. This observation signalled data saturation, leading the researcher to conclude the study after the tenth participant.

Before starting data collection, the researcher conducted three pilot interviews using the interview guide. One member of staff and two discharged patients were interviewed. From the pilot interviews, it was observed that some questions were very difficult to understand by the participants hence difficult to respond to. It was also observed that a 45-minute interview with discharged patients was too long because of sedating effects of medications they were taking. From the interview with a member of staff, questions on the safety of their working environment were added. This allowed for probing about safety issues happening at the hospital that would elicit information regarding safety of the working environment as part of quality of structures and processes of care.

These observations led to the modification of the interview guide for providers where two questions (were added and interview time reduced to below 30 minutes for discharged patients). The interview time for providers was around 40 minutes.

During data collections, the discharged patients generally looked calm and free when responding to questions, but a few moments of anger, bitterness and even frustration were observed when responding to some probing questions. For example, Issues of assault, use seclusion rooms, poor quality of food and lack of meaningful activities in the wards tended to be narrated with anger and disappointment.

On the providers' side, most were relaxed in responding to questions. Unlike discharged patients who could be open when narrating their perceptions (though emotional sometimes), most providers were very careful in responding to sensitive questions (those related to incidents in the wards). One provider who shared an experience of sustaining a fractured leg shed some tears when narrating the story.

Participants were provided with snacks and refreshments after the interviews. No monetary incentives were provided.

Even though the initial plan was to collect data exclusively from discharged patients and providers, certain sensitive information emerged that required immediate attention. In addition to reporting through the hospital Ombudsman, key senior management members, including the hospital director, the hospital matron, head of clinical and health services administrator, were interviewed to obtain their perspectives on the issues raised by the participants.

### **3.5. Data Collection Instruments**

Since the study was qualitative, semi-structured interview guides for both patients and staff were developed by the researcher together with the supervisors (see Appendix C&D) and were used to collect data. Due to the expected limited number of discharged patients in the wards at any given time, only individual interviews were scheduled for both the patients and providers. This approach was chosen to accommodate the likelihood of patients being promptly sent home after discharge, making it challenging to assemble groups for interviews. Additionally, conducting focus group discussions for providers posed logistical difficulties due to the nature of the hospital and their working schedules. Holding group discussions would require meeting staff members during their one-hour lunch break or contacting them during their off-duty hours, which would have financial and logistical implications. The semi-structured interview guide was developed by the researcher, taking into consideration the objectives of this qualitative study. Subsequently, it was reviewed and approved by the supervisors. The interview guide was translated into the local language, Chichewa, for those who could not understand or were not comfortable expressing themselves in English. The interviews for discharged patients took place in quiet places arranged by the head of each ward in the rehabilitation section where patients were waiting to be taken home. For the staff who were working in acute wards and OPD, a safe and quiet environment was arranged in their respective workplaces. The researcher conducted the interviews using the study guide. The researcher had worked at the hospital before (6 years before conducting the research) and had previously worked with three providers who took part in the study while the rest of the staff and discharged patients were new to him and they did not know him.

### **3.6. Data Analysis**

The interviews collected in English were transcribed and interviews in the local language (Chichewa) were translated and transcribed simultaneously into English. The research assistant (student) who was in his fourth year of medical studies transcribed and translated the collected interviews. The transcribed data were analysed using both inductive and deductive thematic analyses. While the deductive approach ensured that there was a link between results of the study and its objectives based on the semi structured interview guide that was used, the inductive approach ensured that during the analysis of data, the researchers allowed categories or themes which were not pre-defined to emerge from the data (Braun & Clarke 2006). According to Braun and Clark (2006), the deductive approach in qualitative data analysis entails the utilization of pre-existing theoretical frameworks or concepts to guide the analysis process. In this approach, the coding structure is derived from these established

theories and systematically applied to the data. The deductive approach facilitates a more focused and theory-driven analysis, with the aim of testing or supporting existing theories rather than generating new ones. For this study, the coding process was based on the Donabedian quality improvement framework, which encompasses the dimensions of structure, process, and outcomes.

On the other hand, the inductive approach involves the identification of themes, categories, or patterns directly from the data, without the influence of preconceived theories or concepts (Braun and Clark 2006). This approach allows researchers to explore and uncover new insights, themes, or concepts that arise from the data itself.

Transcripts were read several times in order to be familiar with the data. Two people (researcher and a colleague, a PhD student) generated initial codes from the data, reviewed the themes, and finally defined and named the themes. Whenever a disagreement emerged on the themes, the researcher and a colleague read the texts again and discussed the theme until consensus was reached. NVivo 12 was used to analyse the data.

Data analysis validation and interpretation was done using the prolonged involvement of the researcher in the study and member checking. The prolonged involvement of the researcher and the colleague in various aspects of the research process, such as data collection, transcription, and interpretation, contributed to the accuracy, reliability, and credibility of the study findings. By actively participating in these activities, the researchers gain a comprehensive understanding of the data. Reading the transcripts multiple times for familiarization was also done. This thorough review helped the researcher and the colleague become deeply acquainted with the content and context of the data. It allowed them to identify recurring themes, patterns, and key points within the transcripts, which form the basis for analysis. This iterative analysis process, facilitated by their prolonged involvement, further strengthened the validity of the findings. By engaging in these activities and adopting a rigorous approach, the researchers were better equipped to validate the accuracy and credibility of the study findings.

On the other hand, member checking was conducted, and during member checking, the researchers provided transcripts of the interviews to some of the participating providers. This allowed the providers to review the transcripts and verify the accuracy of the transcription and interpretations made by the researcher.

### **3.7. Ethical Considerations**

The study was approved by the Human Research Ethics Committee at the Faculty of Health Sciences, University of Cape Town (*see Appendix E*), National Health Sciences Research Committee of Malawi (*see Appendix F*), and ZMH management (*see Appendix G*).

Written, informed consent for the study (*see Appendix A&B*) and recording of the interviews was sought from discharged patients and key ZMH staff members who took part in the study. Even though the patients were already discharged from the hospital, a brief clinical assessment on the mental health status was done by the respective ward nurses to confirm capacity to consent to the study. Participants were informed of the study and its objectives using an information sheet that was in English and Chichewa, which they were allowed to keep. All interviews were audio-recorded, and the transcripts anonymised. All gathered data (recorded and transcribed interviews) were encrypted with a password and stored in a lockable room at the College of Medicine, Mental Health Department. The information will be destroyed after five years of completing the study.

Hospital reporting mechanism for sensitive information including perceived crimes (to the hospital management through hospital Ombudsman) without revealing the identities of the informants was followed. Before completing the analysis and write up, the preliminary findings were presented to the hospital director, management and the QI team so that immediate actions could be taken in order to protect both patients and providers. During the meeting ZMH management appreciated the feedback and planned to act with urgency. The hospital management reflections on the results are included in the results chapter.

The interviews were deemed to be of low risk and unlikely to cause any distress. However, referral procedures to mental health nurses and clinicians were put in place for both providers and discharged patients should they show any signs of distress. No participant needed to be referred after the interviews.

### **3.8. Dissemination of the Results**

In addition to the dissertation, the findings of this study were shared with hospital management and selected staff members as identified by the management. This process enabled raising the troubling incidents discussed in the interviews with study participants, providing an avenue for the hospital management to elaborate on their strategies for handling these incidents (**refer to the management**

**responses in the study results section).** Furthermore, the results will be presented at relevant conferences and published as a peer-reviewed journal articles.

## CHAPTER 4. RESULTS

### 4.1. Introduction

This chapter presents study findings based on its objectives. The themes that emerged from the data were categorised according to a mental health care quality framework developed by Donabedian and this has been used as a guide to the presentation of the results. Being a qualitative study, the findings are presented using participants' direct quotations. The perceptions of quality of care by both discharged patients and providers are presented together in order to highlight similarities and differences. Thereafter the results on barriers and facilitators to implementation of the QI programs are presented. The chapter sections are presented in the following order: (1) characteristics of participants and data collection procedure, (2) perceptions of quality of care at ZMH (3) ZMH management reflection on the results and (4) barriers and facilitators to implementing a QI program.

### 4.2. Study Participants and Data Collection Procedure.

The study recruited 9 discharged patients and 10 providers who were directly involved with patient care and treatment in the wards.

The demographic characteristics of the participants are presented in **table 4**. Of the 9 discharged patients recruited in the study, their average length of stay in the hospital was 5 weeks. The majority were male (n=6), within the age range of 18 to 27 years (n=5), single (n=5) and had completed only some primary school education (n=5). Of the ten members of staff, males and females were equal in numbers, the average age was 43.8 years and the majority were married (n=6). The staff cadre and length of service were broadly distributed.

Table 4: Social Demographic Characteristics of participants

Demographic Characteristics		Providers (N=10)	Discharged patients (N=9)
<b>Gender</b>	Male	5	6
	Female	5	3
<b>Age Range</b>	18-27 years	1	5
	28-37 years	2	2
	38-47 years	3	2
	48-57 years	3	0
	Above 57 years	1	0
<b>Religion</b>	Christian	9	9
	Muslim	1	0
<b>Marital Status</b>	Married	6	2
	Single	3	5
	Divorce	0	2
	Widow/widower	1	0
<b>Educational Level</b>	Primary school	-	5
	Secondary school	2	2
	Tertiary	8	2
<b>Cadre of providers</b>	Psychiatric clinical officer	3	-
	Nursing officer	2	-
	Psychiatric Nurse	2	-
	Nurse midwife technician	1	-
	Patient attendant	2	-
<b>Admissions status</b>	First admission	-	3
	Re-admission	-	6
<b>Duration of Service</b>	1-5 years	3	-
	6-10 years	3	-
	+20 years	4	-

### 4.3. Perception of Quality of Care at ZMH

The presentation of results on perception of quality of care at ZMH will follow the Donabedian framework of measuring quality of care. The framework has three components which are structures, processes and the outcomes (Kilbourne et al, 2018). These perceptions are based on participants' experiences of receiving inpatient care (for discharged patients) and rendering care services at the hospital (for members of staff). After the qualitative data analysis, the results showed both similarities and differences in the way discharged patients and providers perceived the quality of care at the hospital. Participants had both positive and negative views on quality of services at ZMH. The established themes under each component of measuring quality care are presented in the table 5

below. However, it was interesting to observe that providers had no idea about quality indicators used by the hospital to monitor quality of services being provided.

**Table 5:** Themes on perceived quality of mental health services at ZMH using Donabedian quality measurement framework

<b>Components of measuring quality care</b>	<b>Perceptions of members of staff</b>	<b>Perceptions of discharged patients</b>
<b>Structure</b>	Availability and comprehensiveness of services at outpatient department	Availability and comprehensiveness of services at outpatient department
	Design and ward environment (Acute and Rehabilitation)	Design and ward environment (Acute and Rehabilitation)
	Resources (human and material)	Resources (material)
	Use of seclusion room spaces and single rooms	Use of seclusion room spaces
<b>Process</b>	Patient assessment process	Patient assessment
	Treatment and medical procedures (drug administration, nursing care, occupational therapy and ward rounds)	Treatment
	Free mental health services and food	Free services and food
	Communication to guardians	
<b>Outcomes</b>	Effective treatment (recovery outcomes)	Effective treatment (recovery outcomes)

#### **4.3.1. Perceptions about quality of ZMH's structures of care**

Structures refer to necessary resources for mental health care provision (Kunkel, et al, 2007). Some of the examples of structures are personnel, training, facilities or buildings, information technologies, and policies for care. The results of analysed data showed that both discharged patients and staff members had both positive and negative perceptions on quality of structures of ZMH. These perceptions related to the outpatient department (OPD), wards (acute and rehabilitation), seclusion rooms spaces, and resources.

##### **I. Availability and Comprehensiveness of services at Outpatient Department**

Ten providers and four discharged patients commented on the availability and comprehensiveness of services at OPD where an initial assessment takes place to determine whether patients with acute symptoms were to be admitted or not. While most providers' perception was that availability of

services at OPD was a contributor to good care quality at the facility, discharged patients saw it in a more limited role. The health care workers said that services at OPD provided an initial assessment and hygiene to patients arriving at the facility. Discharged patients' thoughts were that services as poor and that during admission, the nurses or clinicians took a verbal history from the patients or guardians but did not do a physical examination.

*"We have OPD services that are good and help improve services. When patients arrive at the hospital, they are seen at the OPD by the clinician on duty and from there he or she is assessed fully; whereby the full history is taken starting with personal data where name, age, village, marital status, occupation, nationality are recorded. Besides that, OPD is used to give initial hygiene to patients such as bathing, shaving and giving clean clothes to patients coming for admission" (ZMHS08, Female, Nurse Midwife Technician)*

*"When we arrived at the hospital, that place where they welcome new patients (OPD), the doctor just asked me questions, no examination, but only questions, like what's my name, my age, what happened at home etc. They did not check me physically the way it happens at Zomba central hospital, but only questions" (ZMHDP09, male, Discharged Patient, tertiary education).*

Although OPD services were reported to be available, three providers disclosed that the OPD services were not functional during the night and weekends because of the unavailability of staff especially clinicians resulting in patients going directly to the acute wards without an initial assessment, thereby inconveniencing ward nurses.

*"Patients are admitted at the OPD by the clinicians where all necessary assessment is done. Unfortunately, our OPD operates during the day and from Monday to Friday only. During the night and weekends, there is no one at the OPD and services become dysfunctional. In this situation, the OPD services are pushed to the wards where nurses have to do the assessment and admissions of the patients" (ZMHS06, female, Nurse Midwife Technician)*

These participants pointed out that lack of OPD services during nights and weekends contribute to challenges with quality of services because nurses may not be able to do a thorough assessment on the acute wards due to the amount of work in running their ward.

## **II. Design and ward environment (Acute and Rehabilitation)**

Perceptions of quality of care between acute and rehabilitation wards was found to be different. While all participants' perceptions about the quality of services in acute wards were negative, their perceptions about care quality in rehabilitation wards were positive. The negative perceptions about care quality in acute wards were based on the nature or design of the wards (closed wards with limited freedom to visit other wards) and ward environment where incidents of disorganisation, noise, and violence were highly prevalent as compared to the rehabilitation wards.

*"Honestly, quality of services differs between acute and rehab wards. Unlike in rehabilitation wards, acute wards are characterised with congestions, disorganisation, noise, violence, poor hygiene and other incidents..... Our structures have a problem as well. All wards were designed and built in a closed-up setting therefore limiting patients' freedom of movement if they want to visit other wards" (ZMHS07, male, Nursing Officer).*

*"I would be very happy to be admitted direct to female rehabilitation ward because there is peace and calmness. In FA [Female acute Ward A], there were a lot of people with a lot of noise and fighting (ZMHDP02, female, discharged patient, primary school dropout).*

On the nature or design of the wards, the majority of participants (both providers and discharged patients) perceived that the hospital wards were confined by design making it difficult for patients to move around the hospital and visit other wards. Some discharged patients described the ZMH wards' design being similar to a prison and that some providers were treating patients as if they were prisoners.

*"We are not able to walk around since we are confined to the ward like a prison, we just stay in here with no activities. The wards are boring." (ZMHDP05, male, discharged patient, primary school education).*

*"The other challenge is that members of staff force us to go into the wards to sleep at around 5pm.....we take supper at around 4 or 5 pm and then they put us in rooms that are in the wards though the rooms are small". (ZMHDP09, male, discharged patient, tertiary education).*

*"In the male acute ward, patients are beaten by the security guards because many patients attempt to abscond.... sometimes we are treated like we are in prison" (ZMHDP04, male,*

*discharged patient, primary school education).*

On environment in the ward, all participants reported that acute wards at the hospital were not safe for patients, providers, and visitors. The reported concerns about acute wards included violence, harassment and sexual abuse, disorganisation, poor hygiene, noise especially during the night due to mixing of acute patients, congestion, security challenges, and the use of abusive language by patients.

Among the mentioned concerns, violence was the most outstanding concern. Participants narrated that violence was in the form of fights and assault (fighting among patients, members of staff assaulting patients, and patients assaulting members of staff). Participants reported guards (who are outsourced by the hospital) were the ones observed to be beating patients, especially those apprehended when attempting to abscond from the hospital. Two patient attendants reported that violence (especially fighting) in acute wards had resulted in injuries and deaths of patients.

*"..... there are a lot of violence in the hospital, the commonest being fights. Sometimes patients fight fellow patients, resulting into injuries and admission at Zomba Central hospital." (ZMHSM09, male, patient Attendant).*

*"It was in a female acute ward, patients were fighting and one patient had torn a cellular blanket and hanged a fellow patient in the ward, and the hanged patient died." (ZMHSM10, female, patient attendant).*

On patients fighting, one discharged patient described fights in acute wards as "wars". These fights made her to be very negative about the acute female wards.

*"..... there are wars in female acute ward, patients fight there. There is a lot of noise. I will be very happy if I will not be admitted in female acute ward again." (ZMHDP02, female, discharged patient, primary school education).*

On assault as one form of violence in acute wards, the perception of participants was that the incidents of members of staff assaulting patients were more common than incidents of patients assaulting members of staff. According to discharged patients and members of staff, hospital guards were responsible for the majority of assaults on patients at the facility. Three discharged patients reported that most of the times patients were being assaulted as a punishment for breaking some hospital rules such as absconding and misbehaving. The hospital investigated these incidents and fired some of the

outsourced guards.

*“if a patient absconds it is like he or she has committed a crime. You are severely beaten by the guards when you are apprehended.....They beat you using their fists and kicks .....I have seen that happening two times during my stay here at the hospital. This happened at the male acute ward and those two patients were severely beaten and locked up in the single rooms (ZMHDP04, male, discharged patient, primary school education).*

*“Sometimes when the patients misbehave..... they are beaten by members of staff especially the guards. After beating them, then they lock them up.” (ZMHDP01, male, discharged patient, secondary school education).*

On patients assaulting members of staff, one nurse narrated that she was once assaulted by a patient in the acute ward and sustained a fractured leg.

*“It was on male rehabilitation ward. There was one patient who was epileptic and was having a seizure as I was rushing towards him in order to assist him, another patient started running towards me claiming that I was the one who had made the patient with seizures fall. As I was trying to explain that it was not me, he took a big walking stick and beat me and I fell on the drain and fractured my leg. This really happened to me ...” (ZMHSM10, female, patient attendant).*

While no quantitative data were collected, the prevalence of physical, verbal and sexual harassment and even abuse towards patients and providers was reported by all participants indicating a relatively common occurrence.

*“..... there have been situations where patients insult members of staff and sometimes undermine them. Some patient attendants say bad words to us due to our illness. They say we are crazy and mad” (ZMHDP01, male, discharged patient, secondary school education).*

While female health workers, especially nurses, experienced both verbal and sexual harassment from male and female patients, female patients only experienced sexual harassment from male members of staff. Two female nurses narrated that a male patient had attempted to rape them in the wards and that sometimes female patients insult them for no apparent reasons.

*“..... so mostly we are harassed by patients in acute wards. Both male and female patients*

*insult us...yah, tried to be raped, tried to be beaten, yah it has been happening often .....It's really difficult. At one point a female nurse was harassed in acute male ward one." (ZMHSM06, female, Nurse Midwife Technician)*

On sexual abuse, a clinical officer reported that the hospital was investigating a case where a patient claimed to have been impregnated by a staff member.

*"Yes, we actually have a case where one of our clients is claiming to have been impregnated by one of our members of staff." (ZMHSM04, male, Psychiatric Clinical Officer).*

Providers reported that consequences of harassment were negative. One nurse explained that harassment was affecting therapeutic relationship between patients and health workers because harassment resulted in anxiety, loss of interest and fear among both patients and workers.

*".....when a patient attempted to rape me, I was really affected because I was always anxious whenever am alone in the male wards..... you know due to harassment we lose interest in our patients, and whenever we are going to the wards, we are afraid so we cannot interact with them the way we are supposed to and mostly we lose confidence and we feel insecure, yah....." (ZMHSM06, female, Nurse Midwife Technician)*

Patients' disorganised behaviours and nature of their mental illness was perceived to contribute to violence and fighting in acute wards. It was reported that mental illness sometimes presents with aggression and disorganised behaviours. A female nurse shared her experience where a patient fell into the nurse's station from the ceiling during the night making her feel unsafe whenever she was working on night shift.

*"Most of the times patients are very aggressive and disorganised. One day we locked an aggressive patient in a single room and the patient climbed into the ceiling and fell into the nurse's station..... it was terrifying. So, you may think that you have locked an aggressive patient in the single room, but later you find him in your office..... after that experience, working during the night shift has been tough." (ZMHSM06, female, nurse midwife technician)*

Safety of patients and their property was another issue highlighted. Providers observed that newly admitted patients with different diagnosis were being put in one room in the wards which could be a

safety issue if one the patient is violent. On patients' properties, participants narrated that security guards sometimes stole patients' properties and distributed illicit drugs such as cannabis.

*"Safety of the patients is compromised because all the new patients with different diagnosis are nursed in one room. Some patients are too violent on admission, that is not safe for the patients who are calm and I would not like to be nursed in such a condition." (ZMHSM07, male, Nursing Officer).*

*"Security guards steal sometimes, like taking things that belong to patients so it becomes a problem. In other incidents you find that the guard is being sent by patients to buy cannabis for them, that is another problem we have in our wards." (ZMHSM07, male, Nursing Officer).*

Unlike their negative perceptions of acute wards, participants' perceptions about services in rehabilitation wards were positive. It was highlighted that calmness and peace prevailed in the rehabilitation wards.

*"There is peace here (rehabilitation ward) and if we wrong one another, we are able to forgive each other. These are the things that make me happy to be in male rehabilitation ward.... In rehabilitation ward, patients have good manners and are able to live normally, exactly the way we live at home." (ZMHDP01, male, discharged patient, secondary school education)*

*"In the rehabilitation ward we are staying very well with nurses and patient attendants; they are able to teach us that we should not fight and we should be living in peace." (ZMHDP03, female, discharged patient, primary school education).*

Because of peace and calmness in rehabilitation wards, most discharged patients preferred to be admitted directly in rehabilitation wards and not in acute wards if they were to be readmitted.

*"I would be very happy to be admitted directly to female rehabilitation ward because there is peace and calmness." (ZMHDP02, female, discharged patient, primary school education)*

### **III. Use of Seclusion rooms spaces and Single Rooms**

The majority of discharged patients and providers reported the existence of seclusion room spaces (a single room used to separate a patient from other patients) at ZMH. Participants highlighted that these

'seclusion rooms' were being used to lock away violent patients and troublemakers in the wards. The perception regarding seclusion rooms was negative because participants felt that they were being used to punish patients.

*"..... They (patients) are punished by locking them up in seclusion rooms..... In these seclusion rooms, patients don't have the opportunity to move out and they don't have the opportunity to associate with others, that's the problem. They are more less like confined at one place....specific patients especially those who are violent and disturbing are secluded in seclusion rooms....."* (ZMHSM07, male, nursing officer)

Some participants observed that sometimes patients were being secluded the whole day in these single rooms.

*"The staff attendants lock all disturbing patients in the single rooms sometimes for the whole day and could release him during the evening."* (ZMHDP01, male, discharged patient, secondary school education).

#### **IV. Human and Material Resources**

All participants felt that there were challenges with both human and material resources at ZMH. Both discharged patients and providers reported on a shortage of material resources that are very crucial for patient care and wellbeing.

*"There were no mattresses in the rooms so we could sleep on the floor."* (ZMHDP05, male, discharged patient, primary school education).

*"We were given only one blanket and we sleep on the mat .... with this weather it is cold here."* (ZMHDP06, female, discharged patient, tertiary education).

*"Sometimes you have patients who are sleeping on the floor. Sometimes only 2 beds and few beddings .....I have seen situations where patients share one blanket and some patients even sleeping without a blanket. Clothes are also in short supply most of the time which is not good for our patients."* (ZMHSM10, female, patient attendant).

On human resources, providers narrated that psychosocial counsellors, social workers, clinical psychologists and occupational therapists, whose services are crucial for holistic mental healthcare, were not available at ZMH. Even though six clinicians and an occupational therapy technician were

available, providers felt that they were inadequate to manage a hospital with a 400-bed capacity.

*“We don’t have enough clinicians at the hospital and that’s the main problem. We have only 6 clinicians, so if the clinician is engaged on other issues, it means it will take time for patients to be reviewed. .... few clinicians cannot manage to review each and every patient once in a week. At the same time, they cannot be in the OPD every day from Monday to Sunday. So it becomes difficult for the patients to be reviewed, in such a way compromising their care. In Occupational Therapy (OT) we only have three staff for the whole hospital. So, it’s difficult. In my ward, for four weeks now, I have-not received any OT member, so if you go and consult them, they will say now I am working in another ward, so it becomes difficult.” (ZMHSM07, male, nursing officer).*

*“At our facilities we don’t have cadres such as counsellors, clinical psychologist, social workers because in mental health we need to do holistic or bio-psycho-socio approach when treating the patient. Unfortunately, here we don’t have other cadres. You can see that other parameters are not assessed because the counsellor has his or her role, so too the social worker and clinical psychologist. Therefore, we fail to offer quality mental health care.” (ZMHSM03, male, Psychiatric Clinical Officer).*

#### **4.3.2. Perceptions about quality of ZMH’s processes of care**

Similar to participants’ perceptions of the structures, results from the data analysis showed both similarities and differences in perception about the quality of processes from discharged patients and members of staff. The following themes were identified: Patient assessment, treatment (drug administration, nursing care, occupational therapy and ward rounds), free mental health services including food for the patients, and communication to the guardians.

While patient assessment, treatment and free mental health services including food for the patients were the common themes established from perceptions of both discharged patients and members of staff, communication to guardians and referring hospitals was a theme established from members of staff only. The common themes will be presented first.

##### ***I. Patient Assessment and Treatment Processes (Drug administration, Nursing care, Occupational therapy, substance rehabilitation and ward rounds)***

The results showed that all participants reported ZMH staff followed a standard procedure when assessing patients. All providers narrated that on arrival, patients are seen at the OPD when clinicians

are able to take history and do examination before the patient is admitted into the wards. Although some discharged patients felt like the assessment was not enough, some were very positive and satisfied not only with assessment but the whole treatment processes at ZMH.

*“I was examined the same day and I was told I had mental illness ..... I am happy because different nurses could come and chat with me, asking me questions regarding my illness. This kind of interaction assisted me to be free and feel at home and I believe it contributed to my quick recovery. I have been receiving medications, being seen by clinicians and nurses and able to go and watch the movies at the OT.” (ZMHDP01, male, secondary school education).*

However, many discharged patients and providers were concerned with the quality of assessment and treatment that was being provided.

*They just asked me questions.....they examined me with questions only, like what’s my name, my age etc.... They did not check me physically but only questions. Nothing positive to talk about during my admission process, no examination to verify if I had mental illness, only question.... The nurses give us medicine, even though they don’t explain how the medication will help us and the condition the medication treats .... It is important to say that this drug is for this disease and you may react in this way, but unfortunately, they don’t do that. (ZMHDP09, male, Discharged Patient, tertiary education).*

*The way I see the care being provided in the wards mostly is generalised. Most of the patients go through the same processes without really assessing their individual needs.....during the occupational therapy, everybody is taken to a farm without really assessing if farming is a need for them. (ZMHSM06, female, Nurse Midwife Technician).*

Some providers reported that assessments were incomplete most of the time and it usually took a long time between the initial and subsequent patient reviews and ward rounds by clinicians.

*“..... sometimes it can take two weeks before patients are reviewed this is due to shortage of staff especially clinicians.....” (ZMHSM08, female, Psychiatric Nurse).*

While all providers and discharged patients acknowledged the presence of occupational therapy services at ZMH, certain participants highlighted specific gaps, particularly the absence of a substance rehabilitation centre, social workers, and inadequate human resources in the occupational therapy

department. The insufficiency of human resources was perceived to hinder the effectiveness of occupational therapy at the facility. Likewise, the absence of substance rehabilitation services was viewed as a challenge for patients dealing with drug and substance use disorders.

*“In Occupational Therapy there are challenges with services. We only have three staffs for the whole hospital so it’s difficult.....for instance, in my wards for four weeks now, I have not seen any Occupational Therapy member, so if you go and consult them, they will say now I am working in another ward, so it becomes difficult. Patients don’t get the occupational therapy services most of the times” (ZMHSM07, male, nursing officer).*

Perceived poor assessment and treatment was associated with incidents of death or injury and long hospital stay at the hospital by the majority of participants. Providers associated incidents that occurred at ZMH with lack of close monitoring of patients in the wards, incomplete assessment especially physical examination, and delays in referral to the general hospital when patient develops physical health conditions.

*“I work as a ward manager in one of the acute wards. You find that the physical health of the patient is not well assessed, and we have incidents of finding a patient dead the next morning and you don’t know what has happened. So sudden death has been a big issue.” (ZMHSM07, male, Nursing Officer).*

*“Yes. I have encountered four deaths in my ward. Some of the deaths could have been managed and prevented but we failed to do so. Maybe late referral to the general hospitals, but others were very unusual. You just find the patient dead in the ward, so you wonder what has killed the patient.....One patient was found dead in one of the wards after hanging himself with a mosquito net.....”. (ZMHSM03, male, Psychiatric Clinical Officer).*

On medication administration, most providers mentioned that the hospital has routine medication administration for in-patients. It was highlighted that nurses were administering medication based on patients’ prescriptions and mostly it was three times in a day and if medication were not effective or patients developed side effects, clinicians were supposed to review and change the medication.

*“We administer medication according to prescription; we observe the behaviour, and we are supposed to document whatever the patient is saying and whatever the patient is doing. (ZMHSM06, female, Nurse Midwife Technician)*

However, there were reported instances where patient's behaviour would lead providers to administering medications to do so without a clinician's/ doctor's prescriptions especially during the night.

*".....sometimes they give the drugs which were not prescribed by the clinicians. .... sometimes you find the patient very drowsy when in fact the medicine that was initially prescribed for the patient could not cause such drowsiness in the morning. Treatment may be just risperidone which cannot make her drowsy but when you get there in the morning you find the patient very drowsy." (ZMHSM02, female, Psychiatric Nurse).*

Nursing care was another positive issue that came out of the analysis. Many providers said that patient orientation, counselling, bathing patients, administering medication, preparing clothes for patients and patient feeding were being provided in the wards to each and every patient. They suggested that the services were improving quality of mental health services that the hospital was providing.

*"Nursing services play a big role in improving quality of mental health services at Zomba Mental Hospital.....if there is a need to give drugs immediately, we (nurses) administer medication accordingly ....we (nurses) assess even their clothes and we make sure that they have removed the clothes and give them hospital uniforms.....We (nurses) show them the toilets, the room where they are supposed to sleep, the place where food is served and where they are supposed to stay and interact with others... and we (nurses) also give them a chance to give us their concerns because sometimes they have their own problems maybe during the night, we still need to know what they feel like you know how they slept during the night." (ZMHSM02, female, Psychiatric Nurse).*

Although nursing care was perceived to be positive by most providers, discharged patients had mixed perceptions towards behaviour of some nurses who were providing the nursing care. Some discharged patients reported that nurses were friendly, respectful and understanding.

*"The other thing is that the nurses are friendly .....and I was impressed because they are more friendly than I expected.... They treat us as people. Well, I can even say they respect us .....there are good nurses and if we have problems, we do present to them and they do assist." (ZMHDP06, male, discharged patient, tertiary education).*

Four discharged patients' perceptions however were negative towards the behaviour of some nurses. While two participants perceived that nurses were negligent, the other two felt that nurses at ZMH had bad or negative attitudes towards patients.

*".... Some nurses have got very bad attitude towards patients, maybe the patient is very aggressive, they just drag the patient into the seclusion rooms or indeed give the patient sedative medication" (ZMHDP06, Male, Tertiary Education).*

*"If you go and tell the nurses about some personal challenges such as being bored, they think that it's just mental illness and maybe we just want to cause trouble.....Most often we are also given injections....." (ZMHDP07, male, Discharged Patient, secondary school education).*

## **II. Free Mental Health Services and Food**

All discharged patients were happy and positive about receiving free mental health services and food. Apart from food, they pointed out that medication, laundry and occupational therapy were free as well.

*"..... the hospital provided us with free food. I was given free medication and free water. We were able to bath and wash our clothes and everything is for free. I am very grateful to the government". (ZMHDP02, female, primary school education).*

On the issue of food, providers acknowledged provision of free food to patients five times a day. A nurse and a discharged patient reported that patient get breakfast lunch and supper every day, with snacks at 10am and 3pm.

*".....the hospital is giving us food without problems. We take food five times a day. We start with porridge in the morning, then tea at 10am, lunch at noon, tea at 4pm then supper at 4:30 in the evening.....I have no problems with food. It is cooked well and I thank government for providing us with food .....at the hospital we have variety of food in a week. We eat meat, rice and other food stuff....." (ZMHDP01, male, secondary school education).*

Even though availability of food was perceived in a positive light by all participants, some discharged patients and members off staff were concerned with both quality and quantity. Seven discharged patients felt that the food offered at the facility was of poor quality, low quantity and most often served late.

*“We are just given one piece of Nsima [Malawian staple food made from maize flour, usually served in pieces and the standard is two pieces of nsima per person] during lunch since we came here and the relish is not cooked well most of the times. The food is not enough and the quality is poor..... Yes, we receive food every day, but it’s not enough.” (ZMHDP05, Male, Primary School Education)*

*“.....it is only the problem of food which comes, sometimes it comes late. Sometimes the food is without salt. Sometimes, the tea we drink the sugar is not enough..... And the beans, they are not well cooked.” (ZMHDP06, Male, Tertiary Education)*

Just like some discharged patients’ perceptions about poor quality of food, all providers said most of the time the food is not well prepared.

*“We are not really giving our patients good food that is well cooked that even us members of staff can have appetite to eat. The raw food is okay, but preparation is very poor. For instance, if it’s meat, they just boil with water, tomatoes and cooking oil at once and when ready we give it to our patients. I think this is not good especially when they put a lot of water. (ZMHSM10, female, patient attendants).*

*“The food is available like breakfast lunch and supper, but at times the quality is poor and most of the patients complain. ....They receive the food, but we can’t say all six groups because mostly fruits are not added to their diet; It is occasionally but the food they receive is maybe sometimes undercooked sometimes overcooked, yah those kinds of things.” (ZMHSM06, female, Nurse Midwife Technician).*

### **III. Communication with the Guardians**

Despite the hospital communicating with the guardians and referring hospitals to come and pick up their discharged patients from ZMH, discharged patients often stayed long periods after being discharged. Providers who took part in the study reported that long stay of patients after discharge could bring congestion.

*“When patients are discharged, we communicate to the referring hospital to come and pick the patient. Those that were referred and for those that were brought by their guardians, we*

*notify the guardians about the discharged patients so that they can take the patient home.” (ZMHSM09, male, Patient attendant).*

Stigma towards mental illness and lack of prioritising mental health patients were the main reasons for delays in picking up discharged patients by guardians and referring hospitals.

*“When the patients are discharged from the hospital, they take time to go home because the referring district hospitals do not come to take their patients. When we call then they just give false assurance and never make it a priority.” (Participant ZMHSM08, female, Psychiatric Nurse).*

*“When patients are discharged, referring hospital don’t come to pick the patients in time. We do communicate but they say there is no fuel and usually they wait for another referral. I have ever talked to the guardians, but too many excuses..... I think negative attitudes plays a big role. It is really surprising because during referral and admission, you do not hear such complaints.” (ZMHSM04, male, Psychiatric Clinical Officer)*

#### **4.3.3. Perceived quality of outcomes at ZMH**

The results from participants’ perceptions on the outcomes identified the following themes: effective treatment, patient readmission and long hospital stay. Effective treatment was reported by both discharged patients and members of staff. Patient readmission was reported by providers while long hospital stay was reported by discharged patients.

All participants perceived that medication and other services at ZMH were effective, resulting in improvement of the patient’s mental health conditions and discharge from the hospital. One nurse narrated that all patients are admitted, treated and discharged into their respective homes after treatment and to her, this was a sign that treatment was effective.

*“I am happy that we are able to provide treatment that is effective to our patients. We admit patients, provide treatment and when they get better, we discharge them. As a nurse, I am satisfied with that though there are some areas that need improvement ...” (ZMHSM02, female, Psychiatric Nurse).*

Like the nurse’s perception, discharged patients were happy with the treatment they received.

*“I am happy because they received me and admitted me and nurses were able to give me*

*medications and now, I am fine..... I believe it is because of the medication and I really thank members of staff for the treatment I got from the hospital. .... I am happy because different nurses could come and chat with me, ask me questions regarding my illness. This kind of interaction assisted me to be free and feel at home. I believe that all that contributed to my recovery". (ZMHDP01, male, discharged Patient, Secondary school Education).*

*"Now I am very fine and I thank government for the care I have received at the hospital. medication and counselling have assisted me a lot, otherwise I was not fine; I could have killed my baby." (ZMHDP02, Female, Discharged Patient, Primary School Education).*

Even though all participants were generally happy with the treatment being effective, some complained of poor services and long hospital stay before discharge and after discharge.

*".....I am not satisfied with quality of care we provide ..... No, I would not be happy with the care if I were to be admitted here." (ZMHSM06, Female, Nurse midwife Technician)*

On long hospital stay, providers narrated that sometimes patients could stay at the hospital for many months or even a year without being discharged and even after discharge, some patients stay for months before being picked up by relatives or referring hospitals.

*"Some patients stay quite a long time before they are discharged. You know mental health conditions are chronic, but I think many patients overstay. We have some patients who have stayed for many months, even up to year before they get discharged. Some have been discharged and stay for months before going home and even relapse while still in hospital... this really affects some hospital outcomes indicators such as average length of stay" (ZMHSM05, male, Psychiatric Clinical Officer).*

Both categories of participants reported that long hospital stay could result in congestion, violence and patient absconding from the hospital.

*"..... due to challenges, some patients stay in the hospital for a longer period of time. One of my friends told me that he has stayed for a year in the hospital. When patients stay in the hospital for a longer period of time, they get used to the hospital and they tend to control everything including food. They can decide to eat your food or take your beddings at night.....I*

*have stayed here for long, almost four months before I was discharged.” (ZMHDP05, male, Discharged Patient, primary school education).*

#### **4.4. ZMH Management Reflection on the Study Findings**

As observed, some of the findings of this study are very sensitive and suggest human rights as well as medico-legal issues. Therefore, ZMH hospital ombudsman, management and the director were engaged during data collection, data analysis and write up so that if needed they could act and also provide reflections of the results. This section highlights some of these reflections and responses from the management and hospital director.

##### ***4.4.1. Patient assessment and OPD services***

Management reported that services at the OPD had started to be for 24 hours including the weekends due to increased number of staff. All clinicians are supposed to assess patients fully and are always encouraged to do so. Concerns on incomplete assessments will be looked into and appropriate action taken.

##### ***4.4.2. Incidents of assault (staff assaulting patients and patients assault staff)***

ZMH has a policy that no member of staff shall assault or beat a patient regardless of the situation. However, the management acknowledged that cases of members of staff assaulting patients and patients assaulting members of staff were being reported at the hospital. Whenever such cases are reported, the hospital investigates in order to establish facts. From their previous investigations, the hospital has established that where there were indeed cases of staff beating the patients, the guards were the ones responsible. The guards are not hospital employees, but employees of security companies that are contracted to offer security services at the hospital. On establishing the role of security guards in any incidents of violence, the hospital has always engaged the security companies and disciplinary measures were carried out which included firing the responsible personnel. Besides that, management reported that the hospital has always been orienting the new guards who were being deployed to work at the facility on how to handle patients bearing in mind the nature of the hospital.

On patient beating members of staff, management acknowledged that there have been cases in the past, but that these are not common. On the nurse who developed a fracture, it was reported that the case happened more than 10 years ago, and all relevant measures (improvement in safety, and

compensation of the victim) were taken. The hospital has improved security measure, including installing CCTV cameras and conducting staff training.

#### ***4.4.3. Incidents of sexual abuse***

Management said that there had been some rumours of sexual abuse in the past and investigations were conducted but that no case of sexual abuse or assault has ever been reported in the past 10 years. The hospital has an office of Ombudsman where such cases can be reported and an investigation in collaboration with Malawi police services is conducted to establish the truth so that appropriate action can be taken. It was reported that in the past, the Malawi Human Rights Commission was engaged and had investigated such rumours.

#### ***4.4.4. Incidents of deaths***

Cases of sudden patient death at the hospital were acknowledged. Management reported that like any psychiatric hospital incidents do happen sometimes. In such situations, the Police, Ministry of Health, and Medical and Nurses councils of Malawi are informed. The police do criminal investigations and when necessary, criminal procedures are instigated. Similarly, the Ministry of Health and Medical and Nurses' councils do conduct joint investigations to rule out cases of negligence and appropriate action is taken, depending on the results of their investigations.

#### ***4.4.5. Shortage of resources***

The hospital acknowledged that resources are never enough, especially human resources. However, the hospital keeps on lobbying the Ministry of Health and recently there have been a number of improvements relative to the past. For instance, it was reported that currently there are four nurses on day duty and two nurses on night duty per ward with capacity of 64 patients. These figures are against the past when there were only two nurses during the day and one nurse during night duty. The Ministry has promised to send more medical officers, mental health and general clinical officers, and nurses to ZMH.

On other resources such as mattresses and clothes, the management highlighted that there is enough funding and large quantities are being procured by the hospital. However, hundreds of mattresses and clothes are being torn by patients making it difficult to maintain enough quantities especially in acute wards.

On mosquito nets, the management highlighted that it is not possible to use mosquito nets at the facility because nets can be used as tools to hang oneself or others. There has been situations in the

past where patients were discovered hanging using nets or cellular blankets (blankets woven with cell like holes that allow air to move into fibre which heats up and warm the body) in the past.

#### ***4.4.6. The use of seclusion rooms***

It was reported that the use of seclusion room is a common phenomenon in psychiatric hospitals, and that ZMH uses the seclusion rooms for patients who are very agitated and violent in order to maintain their safety and safety of others. ZMH has guidelines on how to use seclusion rooms and all members of staff are oriented. The management said they would take up the concerns with urgency so that members of staff can receive refresher training on the seclusion guidelines.

#### ***4.4.7. Food for the patients***

According to the hospital management, ZMH provides free food to all patients six times a day. In a day, almost all food groups (meat, vegetable, fruits, eggs and nsima) are provided. Management acknowledged that there have been reported issues of how the food was being prepared and distributed to patients, but the hospital took on a commitment to sort out the issues.

The hospital thanked the researcher for the findings though they felt that some issues were exaggerated by participants. It was reported that quality improvement initiatives have been put in place to monitor the following: medication status, wards round and patient assessments; food preparation and distribution to the patients; safety of both patients and staff members in the wards; management of patients clothes in the wards and at the laundry; and patient hygiene. The hospital also planned to engage all members of staff during in-service training and that patient safety was one of the priority topics to be covered during the training.

### **4.5. Barriers to Implementing a QI Program – Perceptions of Providers**

While the perceptions of quality of mental health services were collected from both discharged patients and providers, facilitators and barriers to implementing QI programs at ZMH were explored from providers' perspective only. Providers were deemed to be more conversant and knowledgeable with internal and external factors affecting the hospital system and operation. This was in line with the objectives of the study. Barriers are discussed in this section followed by facilitators in the next.

Barriers are factors that are perceived as hindering implementing QI programs at ZMH. The analysed data established heavy workload, inadequate management supervision, lack of knowledge, lack of staff motivation, limited resources and lack of commitment.

### **I. Heavy workload**

Many participants observed that there was a heavy workload at the hospital that affected implementation of QI programs. Members of staff especially health workers focus more on direct patient care than participating in QI programs due to heavy workload. They reported that patient to staff ratio was very high and wards were congested most of the times. Participants elaborated that usually there was only one nurse for many patients in the wards, six clinicians and one consultant psychiatrist for the whole hospital.

*“..... the maximum number of patients per ward is plus 60 and that is beyond the bed capacity. This is against one or two nurses during the day.” (ZMHSM08, Female, Psychiatric Nurse).*

*“With shortage of staff here, clinician and nurses concentrate on direct patient care.....with the numbers of nurses/clinicians against patients, I think it is not wise spending much time on the QI meeting that are happening every Thursday (ZMHSM07, male, Nursing Officer).*

### **II. Lack of knowledge**

A few participants reported that lack of knowledge on mental health as well as quality improvement was a barrier to implementing QI at ZMH. They explained that a lot of providers especially nurses are general nurses (Nurse midwives’ technicians) with no mental health speciality training. Similar, their diploma in nursing curriculum has no content on QI, hence may not have capacity to initiate or contribute effectively to mental health QI programs.

*“The other challenge is knowledge because most of the people working here did not study mental health.....” (ZMHSM06, Female, Nurse midwife Technician).*

*“Knowledge is a challenge as well; I don’t know how many can successfully run a program at our hospital.” (ZMHSM05, male, Psychiatric Clinical Officer).*

### **III. Lack of motivation**

A few participants perceived that lack of staff motivation was also a barrier to implementation of the QI programs at the facility.

*“..... lack of Staff motivation is another barrier. How can a demotivated staff have the energy to push for QI activities. Meagre salaries and lack of morale always put us down.” (ZMHSM08, Female, Psychiatric Nurse).*

The participants further observed that apart from low salaries, they do not have other incentives such as many refresher and workshop trainings the way it was in general hospitals.

#### **IV. Limited resources**

All participants mentioned limited resources as one of the barriers to QI and implementing programs at the hospital. They reported that human, financial, and material resources, such as linen and maintenance material, drugs and medical supplies were always a challenge.

*“There is shortage of resources which is paramount to implementing QI programs .....Lack of resources always limit your skills. We are told that the hospital receives inadequate funding hence priority is more patient care than QI projects.” (ZMHSM07, Male, Nursing Officer).*

##### **I. Resistance to change**

Many participants reported that resistance to change was another barrier. They observed that most providers were resistant and negative to new ways of doing things because they believed that new things bring extra burden on their work.

*“.....another barrier, which I think comes from the administration of the hospital, is that there is lack of willingness and positive attitude towards change. We really need to accept change because things are changing and if we can have QI programs, even the abscondments can end because we will find solution to motivate our patients to stay in the hospital.” (ZMHSM01, Female, Senior Nursing Officer).*

*“.....people stick to old way of doing things and don’t want to change. For example, there is QI project at OPD where every patient who has been admitted needs to take a bath, but patients are just sent to the ward without taking a bath. That means someone is ..... resisting to implement the change.” (ZMHSM05, Male, Psychiatric Clinical officer)*

#### **V. Lack of commitment**

On commitment, participants explained that management’s commitment to supervise the health workers and other providers was minimal. Similarly, the maintenance team was not committed to rectifying maintenance issues at the hospital.

*“They (management) do come around, but they don’t take time to see actually what is happening or indeed review some documents about the mental health care of the patients.*

*With intensive supervision, I think they can see the challenges in the wards and be able to plan and allocate resources accordingly to improve quality of care.” (ZMHSM08, Female, Psychiatric Nurse).*

#### **4.6. Facilitators to QI and Implementing a QI Program – Perceptions of Providers**

Facilitators are factors that providers believed could facilitate improvement of services and enable successful implementation of QI programs at ZMH. Some of the established factors were the current facilitators and others were recommendations to management and other stakeholders on how to improve services. The presentation will be divided into two. First, the current facilitators are discussed which include staff motivation, innovations and collaboration, and in-service training as themes, and second, providers’ recommendations are presented comprising of the following themes: training (specialised and workshops), availability of resources, teamwork, positive attitudes, and commitment from the management team.

##### **4.6.1 Current facilitators to implementing a QI program – perceptions of providers**

###### *I. Staff Motivation*

Providers who participated in the study reported that ZMH was providing some activities that were motivating staff members to take part in QI activities that were being implemented at the facility. They highlighted a benchmarking trip to another hospital in Lilongwe, setting up and training a QI committee with representatives from all wards, and rewarding of best performers (individuals, wards and department) at the end of the year. However, it was reported that not all staff members received the QI training.

*“Staff motivation is another facilitator. ZMH is providing some activities that in my view, motivates some staff members to take part in QI activities. At the end of the year, management rewards best performers that includes individuals, wards, and department” (ZMHSM10, Female, patient attendant).*

*“We are motivated to do QI activities. I am part of QI committee. We were sent to Saint John of God Hospital in Lilongwe, and we have been trained on QI programs. However, not everyone has been trained and we need to train everyone so that all of us can be motivated (ZMHSM05, Male, Psychiatric Clinical officer).*

###### *I. Innovations and collaboration*

Many providers highlighted that staff at ZMH were innovative because they managed to come up with other initiatives aimed at improving services. Infection prevention, health talks in the wards, and incident audits were some of the mentioned projects that were being implemented by the hospital.

*“..... there is infection prevention initiative that also promotes QI as the infection prevention team monitors and supervise all wards and departments on their daily activities.” (ZMHSM10, Female patient attendant).*

Besides innovation, participants reported that the hospital was in collaboration with other stakeholders such as universities. It was highlighted that some stakeholders were already implementing QI projects at the facility while others had the potential to do the same.

*“.....at acute female ward (FA), we have a small project of a model ward being championed by University of Malawi, Kamuzu college of nursing. I like the idea because we learn something from the initiative.” (ZMHSM08, female, Psychiatric Nurse)*

*“The coming of QI project from College of Medicine is an eye opener, we have developed QI team, we have been trained in QI and we meet regularly to discuss QI activities that we can implement here, I believe it will have positive impact on improvement of services at Zomba Mental Hospital” (ZMHSM05, Male, Psychiatric Clinical Officer).*

One participant narrated that collaboration with stakeholders has potential to improve services at the facility.

*“The hospital is a teaching mental hospital, we have partnership with all universities and college that train health workers in Malawi, and some hospitals. This has a potential to help a lot in QI programs.” (ZMHSM05, Male, Psychiatric Clinical Officer).*

## *II. In-service training*

Many participants' views were that training is crucial as it imparts knowledge on mental health including QI and may change the attitudes of some members of staff. The fact that the hospital was providing this short-term in-service training was viewed as facilitator to improve services.

*“This is my eighth year working at ZMH, periodically we have in-service training to all members of staff. Through the trainings, we get updates in both nursing and medical, we also get*

*reminded on our day-to-day work. This is encouraging and helps improve services” (ZMHSM01, Female, Senior Nursing Officer).*

#### **4.6.2. Provider’s recommendations.**

##### *I. Staff Training*

All participants perceived that training was very crucial for improving services and indeed successful implementation of QI programs. They recommended both long term (specialised mental health) and short term (workshops and continuous professional development) training to workers in all departments.

*“Sending some members of staff to schools both long and short term. Nonspecialised staff especially nurses can become psychiatric nurses and able to improve services at ZMH and implements programs” (ZMHSM06, Female, Nurse midwife Technician).*

*“ZMH should focus on trainings members of staff, and this should be priority it. Well trained staff are able to work according to stipulated standards in nursing and clinical..... adequately trained staff will likely improve services here” (ZMHSM01, Female, Senior Nursing Officer).*

##### *II. Availability of Resources*

All participants said that resources especially human are crucial in QI. Providers reported the need to lobby for more resources such as health workers including specialists, finances, drugs and medical supplies and other material resources for the improvement of mental health services.

*“If resources can be mobilised and then we build the units here, then that can be okay, and quality of mental health services can improve. Mobilise more staff to be deployed here at ZMH. Lobby the policy makers to introduce these new cadres into our mental health care system, that would greatly overcome the barriers to QI. (ZMHSM03, Male, Psychiatric Clinical Officer).*

##### *III. Teamwork*

Teamwork was another facilitator highlighted in the analysed data. Participants acknowledged that teamwork is a catalyst for QI and therefore management should encourage teamwork.

*“Management and all staff members should be able to unite and work for the common purpose and with same goals for the patients..... If management and members of staff can*

*unite and agree on one thing about how we can improve quality of care that we provide to our patients, I believe we can achieve quality mental health care services.” (ZMHSM09, Male, Patient Attendant).*

*“..... even though we can be saying we are few but if we work as a team, I think we can do something great so that at least our services are of that high quality that we dream of.” (ZMHSM01, Female, Senior Nursing Officer).*

#### IV. Positive Attitudes

Some participants pointed out that positive attitudes and a mindset oriented towards change can facilitate improvement of services and implementation of QI programs.

*“Good attitude towards mental health care services can facilitate QI program implementation and mental healthcare services. If we come to work with positive mindset, we can be able to concentrate on our work and improve services.” (ZMHSM08, Female, Psychiatric Nurse).*

*“.....we need to have an open mind to accommodate new ways of doing things because things change with time. if our mindset can change, we can have a lot of new ideas and will be easy to implement changes.” (ZMHSM07, Male, Nursing Officer).*

#### V. Commitment of Management Team

The results indicated that management’s commitment is crucial in facilitating QI programs at ZMH. Many participants reported that fulfilling management roles such as supportive supervision, consultations before making decisions and good leadership can facilitate QI programs.

*“The role of management is to supervise the hospital and see how nurses and clinicians are performing in the wards.....Management should interview nurses and clinicians in order to have a clear understanding of challenges that they face in the wards. This will assist management to have a focussed approach on improving quality of mental health services at the hospital.” (ZMHSM08, Female, Psychiatric nurse)*

### 4.7 Conclusion

The chapter presented study findings after analysing collected data from both providers and discharged patients at ZMH. The perceptions of patients were based on the experiences during their admission at ZMH. The average length of stay in most psychiatric hospitals is six weeks, therefore the

patient's perceptions in this study may be attributed to that duration. However, it is important to note the high rates of readmission at the facility, which would imply that some reports would have been based on the past experiences. On the provider's part, most of them had worked at the facility for more than 5 years. Looking at the management explanation, it is possible that reports were based on their past experiences.

## **CHAPTER 5: DISCUSSION**

### **5.1. Introduction**

This chapter discusses the major findings of this study, which explored perceptions of care quality and barriers and facilitators to QI at ZMH in Malawi, using relevant related literature, followed by study strengths and limitations, implications for research and policy, and conclusions. The discussion of results is divided into three parts: discussion on perceptions of mental health care quality using the Donabedian QI framework, perceived barriers and facilitators to implementing a QI programme.

### **5.2. Summary of the Findings**

The results of the study showed that perceptions on the quality of mental health services among providers (members of staff) and users (discharged patients) was a mixture of both positive and negative ones. Based on the Donabedian QI framework of this study, the perceptions of care quality were categorised into those relating to structures, processes of care and outcomes. On structures, the study established the following themes: Availability and comprehensiveness of services at outpatient department, design and ward environment (acute and rehabilitation), resources (human and material), and the use of seclusion and single rooms. On processes, the results established patient assessment processes, treatment and medical procedures (drug administration, nursing care, occupational therapy and ward rounds), free mental health services and food, and communication to the guardians. Finally, on the outcomes, the analysis of the results identified effective treatment (recovery outcomes).

Apart from perceptions of care quality, the study identified perceived barriers and facilitators to implementing QI programs at ZMH using interviews with providers only. Establishing barriers and current facilitators to implementing QI programs at ZMH was the second objective of the study. The following themes emerged on the barriers: Heavy workload, lack of knowledge, lack of motivation, limited resources, resistance to change, and lack of commitment. Unlike perceptions regarding the barriers where a lot of themes emerged, perceptions on current facilitators established only three themes: Staff motivation, innovations and collaboration, and in-service training. However, the study established recommendations to hospital management and stakeholders regarding QI in the following themes: availability of resources, teamwork, positive attitudes, and commitment of management team.

### **5.3. Perceptions of Care Quality**

Participants' perceptions of health care quality depend upon a number of factors such as technical competence of people providing services, accessibility to services, interpersonal relations between patients and providers, and availability of required resources such as medication, medical supplies, human resource and indeed facilities where care takes place (Kiguli et al., 2009). The mentioned factors are the reasons why perceptions differ from one person to the other even though they may be exposed to similar experiences.

In this study, Perceptions of care quality by discharged patients and providers at ZMH shared some themes but differed in others. Differences in social demographic characteristics (education level, professional and qualification levels, social economic backgrounds, and experiences of utilising and providing care) coupled with experience of being a patient versus a staff member of participants were likely to alter their understanding of quality care hence differences in perceptions.

Due to limited QI studies in mental health care settings in Malawi and other low in-come countries, the ZMH study findings are compared to other study findings conducted both in general and mental health settings, and in low- and high-income countries.

This study findings are in line with the fact that most existing mental health services in low-income countries are not adequate, equitable, efficient and there is inadequate infrastructure (Addisu, Wondafrash, Chemali, Dejene, & Tesfaye, 2015). This study's results are similar to results from other studies conducted in similar and different settings such as Uganda and Saudi Arabia respectively. In Saudi Arabian psychiatric hospitals, a study by Al Mousa et al., (2020) established that the design of mental hospitals were like prisons, there was poor interaction between patients and health care workers, and poor quality of staff members' education, training and experience, all themes identified by the user and provider participants from ZMH in this study.

In Uganda, service users' and providers' perceptions on quality of general health services in a community setting, established inadequate human resources for health, shortage of essential medicine and medical supplies, poor health workers' attitudes towards the patients and challenges with accessibility of health care facilities as factors contributing to poor quality of services (Kiguli et al., 2009). The Ugandan and ZMH study findings are very similar despite the fact that these studies were conducted in different health care contexts - in community general health in Uganda and a mental hospital in Malawi. The similarities in findings may also be attributed to the fact that Uganda and Malawi (where ZMH is located) are low-income countries and in Sub-Saharan African region

where inadequate human resources for health, shortage of essential medicine and medical supplies, and poor accessibility to co healthcare are established challenged as far as quality of health services is concerned (Das, 2011).

Discharged patients' perceptions of care at ZMH should be an eye opener to ZMH management and QI team so that they can put in place measures for improving mental health services that should satisfy both users and providers. Even though many providers and discharged patients were negative about the quality of some services, some of them did acknowledge that ZMH was performing well in some areas such as: provision of food, availability of OPD services, patient assessment, effective treatment, and free services. Negative perceptions about quality of care at ZMH is in line with what some literature suggests that reports of patients being dissatisfied with mental health care services are not uncommon in many settings (Wood & Alsawy, 2016).

#### **5.4. Perception about Quality of Structures**

Structures refer to prerequisite factors or resources for mental health care provision (Kunkel et al, 2007). Some of the examples of structures are personnel, training, facilities or buildings, wards, information technologies, and policies for care. Availability of structures is crucial for mental health care service delivery and structures play a pivotal role in the outcome of mental health conditions in a hospital setting such as ZMH.

##### ***5.4.1. Design of mental hospital wards and seclusion rooms***

Perceptions of participants regarding ZMH wards that confined them to one place makes sense based on the researcher's observation. Despite wards being spacious with a big yard where patients can do different activities, there is only one main entrance to the ward that is in form of a corridor. The corridor branches into two entrances, one to the ward and the other to the big yard. These two entrances have burglar bars and are always closed, manned by hospital guards restricting patients from going into and leaving the wards. This setup is likely to make a person feel restricted like being in prison. This finding is not unique because like ZMH, the designs of most psychiatric hospitals and the wards seem to target confinement and restriction of patients' movement, causing patients to have feelings of imprisonment (Papoulias, Csipke, Rose, McKellar, & Wykes, 2014).

The use of seclusion rooms in the wards at ZMH was another issue that both providers and discharged patients felt was contributing to poor quality of services at the hospital. Use of seclusion rooms at ZMH was also noted by Chorwe-Sungani (2007) who described how ZMH seclusion rooms in the wards

were being used for non-specified periods of time as management of aggressive patients. The use of seclusion rooms in psychiatric hospitals is very common and is one of the therapeutic interventions for managing aggressive psychiatric patients in order to promote their safety and indeed the safety of others. However, a lot of attention nowadays is being focused on the reducing their use in mental hospitals (Scanlan, 2009). Even though this safety or therapeutic intervention is perceived negatively especially from the patient's point of view, most health workers defend the use of seclusion rooms because of the high prevalence of violence in psychiatric wards (De Benedictis et al., 2011). Before, during and after putting a patient in a seclusion room, members of staff are required to regularly engage and communicate with the secluded patient in order to promote therapeutic results of the intervention (Van Der Merwe, Muir-Cochrane, Jones, Tziggili, & Bowers, 2013). Unfortunately, that was not the case with ZMH as discharged patients perceived those seclusion rooms to be merely used as a punishment for patients seen as showing disturbing behaviour. Discharged patients and some providers at ZMH reported that seclusion rooms were used for patients that were perceived to be troublemakers, at risk of absconding from the hospital or indeed having absconded and been apprehended, and those who had done something wrong that needed punishment. Furthermore, it was reported that a patient could stay in a seclusion room for the whole day which is against the principles of seclusion rooms as a therapeutic intervention. This explains why participants at ZMH perceived use of seclusion rooms as a factor contributing to poor quality of services.

#### ***5.4.2. Situations in mental hospital wards (acute versus rehabilitation)***

The situation in the ward was a clearly identified theme by a number of participants both clients and providers. The participants perceived that ZMH ward environments were not conducive for mental health care because of violence (including assault), harassment, poor hygiene, congestion and poor safety. Similar negative perceptions were established in similar settings but in other countries. For instance, a study in Saudi Arabian psychiatric hospitals found the following negative perceptions in the wards: wards were like prison, providers in wards especially nurses were not well trained, problems with personal clothing, lack of cleanliness, and lack of prayer rooms (Al Mousa et al., 2020). In UK, Spencer et al., 2013, established patients' boredom, lack of privacy, violence, seclusion rooms and patient restraint, punishment and poor hygiene as some of perceived factors making the mental hospital wards' environment not conducive to recovery.

Even though the prevalence of violence in mental hospitals is not an uncommon phenomenon, and some studies suggest that one in five patients admitted to acute psychiatric units may commit an act of violence ( Odes, Chapman, Harrison, Ackerman, & Hong, 2021; Schlup, Gehri, & Simon, 2021;

Lozzino, Ferrari, Large, Nielssen, & De Girolamo, 2015), it does point to weaknesses in the hospital systems hence contributing to poor quality of services. Violence in inpatient psychiatric hospitals contributes to poor safety of patients and providers and reduced effectiveness of mental health treatment (Lozzino, Ferrari, Large, Nielssen, & de Girolamo, 2015) as was also noted in the reports of both staff and discharged patients in this study and other studies at ZMH. For instance, a study by Chorwe-Sungani (2007) that looked at management of aggression at ZMH, found that violence and patient aggression towards fellow patients and workers was common, especially in acute wards of the hospital. Like ZMH study findings, overcrowding in the wards, nurses negative attitudes brought frustration on the ward in Swedish forensic psychiatric Units resulting into conflict and the violence between patients and healthcare providers (Olsson, Auduly, Strand, & Kristiansen 2015).

Violence towards members of staff in psychiatric hospitals have been studied in both high- and low-income settings and results are similar to that of ZMH. In Botswana and Nigeria it was established that violence in the form of physical assault and verbal abuse of staff members in psychiatric hospitals were very common (Akanni et al., 2019; Olashore, Akanni, & Ogunidipe, 2018). In these studies, the rates of physical assault towards members of staff were 69.8% in Botswana and 62.1% in Nigeria. Similarly, in Jordan, a study done by Al-Azzam, Al-Sagarat, Tawalbeh, & Poedel, (2017) revealed that a significant majority of the nurses working in government mental hospitals experienced some form of violence, with approximately 80% reporting being victims in the past two years. The most commonly reported type of violence was verbal abuse and the primary source of this violence was identified as patients. In other settings, a systematic review by Yosep, Putit, Hazmi, & Mediani (2016) established that health workers, especially nurses, in mental hospitals frequently experience violence and abuse (verbal, physical, sexual, and psychological). The systematic review further established that the nature of violence by psychiatric patients towards nurses in mental health setting varies. Physical and sexual violence perpetrated by patients towards health care workers was commonly reported in USA, Australia, United Kingdom, and New Zealand while the Middle East was associated with bullying and psychological violence. In New Zealand psychiatric hospitals, Nurses had experienced violence that led to various injuries such as lacerations, head injuries, dislocations, and bruises. Additionally, there had been instances of psychological harm, including the development of severe mental health issues like post-traumatic stress disorder (Baby, Glue, & Carlyle, 2014).

Instances of violence, against individuals with severe mental illness, including sexual violence, is widespread among both psychiatric in-patients and within domestic settings. A systematic review by

Maniglio (2009) established that the rates of victimization among individuals with severe mental illness were significantly higher, ranging from 2.3 to 140.4 times more than those observed in the general population. On domestic violence towards people suffering from mental illness, many studies conducted in different setups have concluded that patients with severe mental illness face a significantly higher risk of experiencing domestic and sexual violence (Khalifeh et al. 2015; Oram, Khalifeh, & Howard, 2017; Bhavsar, & Bhugra, 2018).

While there is a significant focus on violence towards healthcare providers from psychiatric patients in research, there are limited recent data specifically addressing violence towards patients within mental health institutions. It is important to note that violence (psychical, psychological and sexual), abuse, or torture of patients is not only a severe form of malpractice but also a criminal offense. Nevertheless, three separate studies conducted in psychiatric hospitals, specifically in the United States, Germany, and Saudi Arabia, have addressed the issue of violence against patients within these facilities. While the studies in USA and Saudi Arabia revealed a low prevalence of physical and sexual assault on patients (Frueh et al., 2005; Al Mousa et al., 2020), results from a study conducted in Germany by Rossa-Roccor, Schmid, & Steinert (2020) revealed significant instances of violence within psychiatric hospitals, including theft (40.0%), sexual assault (10.6%), and physical violence (27.7%) perpetrated by both other patients and staff members. In Saudi Arabia, some in-patients reported instances of physical assault occurring in the wards as a form of punishment for perceived wrongdoings. In USA participants reported experiences of lifetime trauma, that included physical assault, sexual assault, and witnessing traumatic events.

Both discharged patients and providers at ZMH reported notable differences in the magnitude of violence between acute and rehabilitation wards. Similarly, Olashore, Akanni, and Ogundipe (2018) found that at Sbrana Psychiatric Hospital in Botswana, a higher percentage of psychiatric patients (58.1%) experienced violence and abuse in acute wards compared to other wards such as rehabilitation, observation, and psycho-geriatric wards (22%). One of the contributing factors to experiences of violence in acute ward is congestion as has been observed in this study findings.

As already established, violence was perceived to be associated with congestion of patients with high levels of acute symptoms including aggressive behaviours in the wards. It is crucial to acknowledge that inpatient aggression leading to violence can often be attributed to various patient factors. These factors may include being younger, male, having involuntary admissions, not being married, being diagnosed with schizophrenia especially paranoid type, having a higher number of previous

admissions, a history of violence, a history of self-destructive behaviour, and a history of substance abuse (Dack, Ross, Papadopoulos, Stewart, & Bowers, 2013). As one of the referrals and biggest psychiatric hospital in Malawi, episodes of violence were anticipated though not to the reported magnitude. The fact that all participants (staff and discharged patients) reported about it and that some violence was perceived to have resulted in life threatening injuries and death, shows how big the challenge was and the need for hospital management to act with urgency.

Sudden death in psychiatric hospitals are common in many settings and, unlike at ZMH where many were linked to violence and assault, have been linked to antipsychotic therapy (such as Thioridazine), and physical diseases such as heart conditions, pneumonia, haemorrhagic stroke and brain tumours (Ifteni, Correll, Burtea, Kane, & Manu, 2014). According to a study conducted by Windfuhr, Turnbull, and Louis Appleby in England and Wales, in 2011, the use of benzodiazepines and antipsychotics (such as promazine and clozapine), the presence of cardiovascular and respiratory diseases, and a diagnosis of dementia were identified as risk factors for sudden unexplained deaths. Besides violence and assault as perceived by providers to be precursor of sudden death and injuries at ZMH, lack of a comprehensive physical assessment to rule out physical conditions and poor monitoring of patients due to either pressure of work (shortage of staff) or indeed negligence may be other causes. Based on providers and discharged patients' perceptions, one may easily conclude that the situation in ZMH wards was not good. However, when these were reported and discussed with ZMH management, their responses suggested that most of the incidents described by participants happened a few years back and that appropriate action had been taken. This would be an important aspect to, monitor in implementation of a QI initiative.

Prevalence of challenges in mental hospitals wards creates barriers to mental hospital wards being able to support patients, provide a therapeutic environment, safe from both internal and external hazards and be a place where patients, health workers and visitors can stay without experiencing problems (Papoulias et al., 2014).

The participants' experiences of peace and calmness in rehabilitation wards is understandable because these rehabilitation wards would generally include patients who have improved and should be able to have a clear understanding of their conditions and hospital setup. Presence of peace and calmness in rehabilitation wards at ZMH was encouraging because a peaceful hospital environment especially in the wards contributes positively to nurse-patient interaction, aids quick recovery of psychiatric patients, and contributes to perceived good quality of mental health (Staniszewska et al.,

2019). Just like ZMH's providers' perceptions, Spencer et al, (2013) in their study in the United Kingdom, found that carers' perception about mental hospital wards was that the wards were clean, tidy, peaceful, and calm.

Incidences of violence, aggression and abuse are likely to contribute to perceived safety and security challenges in psychiatric hospitals such as ZMH. The fact that participants narrated incidents of theft of patient belongings, attempted rape, assault and violence clearly indicate that there was poor safety and security at the hospital. According to Berzins, Baker, Brown, & Lawton, (2018), patient safety in psychiatry has not received as much international attention as in other areas of healthcare and it has been a relatively understudied and underemphasized. Despite the limited research in this area, several studies have identified significant safety and security challenges in psychiatric hospitals across different income settings. These challenges have been observed in both low-income and high-income countries, indicating that issues related to patient safety are prevalent across diverse healthcare systems. A survey conducted in the United Kingdom among mental health service users and carers shed light on three primary themes concerning patient safety in mental health care services: safety culture, social environment, and individual service user and staff factors (Berzins, Baker, Louch, & Albutt (2020). In their study, safety culture within mental health care services included psychological aspects of safety and the ability to voice concerns; social environment theme highlighted concerns related to threats of violence and sexual abuse; and individual service user and staff factors theme primarily revolved around service users feeling unheard and not being listened to. In England, some in-patients from 60 different wards perceived psychiatric wards as being risky environments and theft of their belongings was the most irritating challenge reported. Besides theft, the study further established that prevalence of racism, aggressive behaviours, psychoactive substance use and bullying made some patients feel insecure and unsafe (Jones et al., 2010). In Ghana, Alhassan & Poku (2018) found that physical and psychosocial occupational health hazards were experienced by nurses working in two psychiatric hospitals with the most reported occupational hazards being physical compared to psychosocial.

### **5.5. Perception about Quality of Processes**

By definition, processes refer to evidence-based care such as patients' physical and mental status examination, treatment, nursing care, occupational therapy, etc. The results from this study found that free mental health services including food, communication with guardians and referring hospitals, and availability of mental health and treatment processes were perceived as positive contributions towards quality of processes at ZMH.

### **5.5.1. Mental health patient assessment and treatment**

The results show that participants reported experiencing no meaningful occupational therapy (OT) activities in the wards; some patients were not being fully assessed; and there was a lack of other essential mental health services such as substance abuse rehabilitation, psychological assessment and interventions, and social work. These perceptions suggest challenges that ZMH may have in provision of holistic mental health services. The lack of rehabilitation services for patient with substance use disorders may result in treatment gaps hence affecting quality of mental health services for such patients. Similarly, lack of meaningful OT activities, which are important components of comprehensive mental health care and rehabilitation in an in-patient setting, may lead to boredom and lack of challenges in developing interpersonal relationships and communication among patients and members of staff. There is a positive association between participation in meaningful OT activities and recovery from severe mental illnesses and of cognitive abilities and functional capacity (Lipskaya-Velikovsky, Krupa, Silvan-Kosovich, & Kotler, 2020). Hence lack of such services is likely to be perceived as a challenge for providing quality services.

Challenges with human resources (as confirmed by management) may likely contribute to heavy workloads and result into challenges with conducting assessments and provision of treatment, hence perception that some clients were not being fully assessed is understandable.

### **5.5.2. Health workers' negative attitudes and negligence in mental hospitals**

Health care workers and other providers play a significant role in treatment and rehabilitation of patients suffering from mental illness. The positive attitude of health care professionals is paramount in delivering mental health services effectively and efficiently. Negative attitudes can have significant adverse effects on individuals with mental illness, including delays in seeking necessary help and a decrease in the quality of care provided (Ghuloum, Mahfoud, Al-Amin, Marji, & Kehyayan, 2022). Therefore, fostering a positive and supportive attitude among health care workers is crucial for ensuring that individuals with mental illness receive timely and high-quality care that meets their needs.

The finding that providers at ZMH had negative attitudes towards patients does not reflect well because negative attitudes can affect the relationship between patients and health workers hence contributing to poor care. ZMH's discharged patients felt that staff members, especially nurses and guards, had negative attitudes towards them because of a lack of understanding of the challenges faced by patients and the way some of the challenges, such as aggression, were being addressed (in

form of perceived punishment by giving injections or secluding patients). Many studies in different settings have found that some staff (including mental health care workers) have negative attitudes towards patients suffering from mental illness (Björkman, Angelman, & Jönsson, 2008; Gibb, Beautrais, & Surgenor, 2010; Hansson, Jormfeldt, Svedberg, & Svensson, 2013). Negative attitudes at ZMH were reported by four discharged patients and was attributed to some nurses. Unfortunately, it is difficult to state whether negative attitudes were towards patients with specific diagnosis as it was the case in studies above where staff negative attitudes were associated with specific patients' diagnosis (such as schizophrenia and substance abuse, self-harm, dementia and personality disorders).

Negligence among providers in hospitals have been widely reported in both developed and developing countries and it may result in life threatening consequences and even death of patients (Hågensen, Nilsen, Mehus, & Henriksen, 2018). In most settings, including Africa, there has been increased cases of staff negligence resulting into lawsuits (Chamisa, 2013). At ZMH, the results showed that perceived staff negligence was related to lack of a sense of responsibility of providers towards hospital property and patient care. Unlike ZMH findings, other studies established that staff negligence was found to be related to complications of patients' conditions, lack of responsibility and medical errors by members of staff, and poor patient support (Hågensen et al., 2018).

### ***5.5.3. Free mental health services including food***

Malawi is one of the countries that offer free health care services to its citizens in public health facilities. This free access to health services especially the Essential Health Package (EHP) is meant to help the country in achieving universal health coverage and improving the wellbeing of the population (Abiuro, Mbera, & De Allegri, 2014). Therefore, the study finding that patients at ZMH were accessing free health services and food was in line with the government policy. Looking at the socio-economic status of participants who took part in the study especially discharged patients (generally with low education and without employment) free services including food would likely be seen as an indicator of a good quality of services.

The importance of food and nutrition on the health and wellbeing of people needs no emphasis. It has been found that some patients' behaviours, mood, pathology, and treatment outcomes of mental illnesses have been closely linked to food and nutrition (Owen & Corfe, 2017). Nine studies reviewed by the researcher on quality of mental health services mention food. The reason for this is not clear but may be in part because food is provided by separate entities contracted by the hospitals. In the

Malawian setting, it is the responsibility of public hospitals to feed the in-patients for free. Although provision of free food was perceived as a factor contributing to good quality services, many participants complained about the poor quality and low quantity of food provided. The finding is in line with some participants reporting incidents of theft of patients' food by members of staff. The other factor that may have contributed to poor food quality could be the way the hospital was preparing the food without salt and boiling the meat, which resulted in tasteless food.

#### **5.5.4. Long hospital stay**

Long hospital stay was one of the findings from this study. Challenges with assessment and treatment, and poor communication between ZMH and referring institutions or guardians after patient discharge were perceived as contributing factors to patients' long stay at ZMH. Long hospital stay is very common in psychiatric hospitals both in low- and high-income countries (Kawamura, Tanioka, Tada, King, & Locsin 2013; Moriwaki et al., 2013), however, no studies have looked at long stay after discharge as the case with ZMH. Differences in health systems and policies for referral, admission, and discharge of patients suffering from mental illness in different countries may be the reason why studies do not focus on the patient's stay after discharge.

Unlike perceived challenges with assessment and treatment as contributing factors to long hospital stay at ZMH, chronic mental health conditions such as schizophrenia, mental retardation and comorbidity of mental illness and physical conditions have been established as causes of long hospital stay in psychiatric hospitals in other African settings (Taiwo et al, 2008). Even though the average length of stay of patients in psychiatric hospitals is a bit longer compared to patients in general hospitals, longer hospital stay may be attributed to poor standard of mental health care and may lead to greater financial burden for mental hospitals (Douzenis et al., 2012).

### **5.6. Perception About Quality of Outcomes**

According to the quality of mental health framework, outcomes refer to effects of care on health status of the patients. In other words, it means regaining of functioning, reduction of psychotic symptoms, and patient's satisfaction with mental health services received. The results from this study established effective treatment as a main theme related to outcomes.

#### **5.6.1. Effective treatment**

It is the desire and responsibility of any hospital to offer treatment that achieves the desired effects for their patients. The fact that patients were being admitted, getting better and discharged from ZMH

hospital, led to both providers and discharged patients to report the treatment as being effective and were happy and satisfied with the quality of services. Similar studies in Tanzania and Saudi Arabia established similar results. In Tanzania, a study conducted by (Ambikile & Iseselo, 2017) at Temeke hospital established that health care workers were satisfied with mental health services offered by the facility because they were effective. Just like members of staff, the perception of mental health service users at this facility was that the treatment was making them improve in their mental health status and they too were satisfied. In Saudi Arabia, Al Mousa et al. (2020) found that some participants were satisfied with care services received in mental hospitals especially with treatment that was perceived to be effective.

Even though this study established effective treatment as a positive outcome and that some patients were satisfied, some participants especially providers, indicated that the care provided at the facility was not based on the needs of an individual patient but generalised. This providers' perception was in line with findings from a previous study that was done at the facility on patients who were admitted for forensic mental health services. In this previous retrospective study, Heyward et al. (2010) found that the hospital was marred with negative outcomes such as high rates of patients' readmission after discharge and absconding from the hospital before discharge. It is important to note that there is no separate forensic unit at ZMH and all patients are treated in the same wards and by the same staff. Having a positive perceptions of health services by patients in situation where some providers have negative perception is very possible because in many cases some patients can receive poor medical care and still be extremely satisfied (Lyu, Cooper, Freischlag, & Makary, 2013). Lack of patient's knowledge and understanding, poor education levels and considering that quality is mostly determined by the recipient's perceptions may be the contributing factor to the differences.

### **5.7. Barriers to Implementing QI Programs**

When implementing a QI program in healthcare settings including mental health, it is important to consider barriers and facilitators so that successful implementation of the program can be achieved (van de Steeg et al., 2013). The results from this study showed the following as barriers to implementing a QI program at ZMH: heavy workload, inadequate management supervision, lack of knowledge, lack of staff motivation, limited resources, and lack of commitment from some of the members of staff. These results are similar to those found in other studies, but many low-income countries have been slow in developing and improving quality of their mental health services (Saraceno et al., 2007) through QI programs. Research studies on barriers to implementing QI programs in both mental and general healthcare settings have been conducted in both high- and low-

income countries. However, their published results have often differed because of different settings as well as nature of participants.

Looking at other published study results, differences and similarities can be observed on barriers as compared to ZMH results. For instance, Zhou, et al., (2022) in their study on barriers and enablers in the implementation of a QI program in hospitals in China, identified complexity of the intervention, poor adaptability among implementers, insufficient resources to address patients' needs, limited government support regarding policies and incentives, structural challenges within hospitals, resistance from certain staff members, high workload for staff members, and concerns regarding the fidelity and sustainability of intervention implementation. All these findings, except complexity of interventions, poor adaptability among implementers, limited government support and sustainability of interventions are similar to that of ZMH results. Studies in the Netherlands and United States of America (USA) established different results. In the Netherlands, in their study that focused on what impedes and facilitates a quality improvement project for older patients in 19 hospitals, Van de Steeg et al. (2013) found that lack of a practical QI program concept, being unable to clearly define contextual factors of the program, and lack of specific measures were key barriers to implementing a QI program. In USA, perceptions of providers in nursing care homes on barriers and facilitators to implementing QI programs identified lack of time to complete activities, inability to interpret data reports, lack of ongoing training and misunderstanding of goals as the barriers to implementing QI programs (Mills et al., 2019).

Heavy workload as a barrier to implementing QI programs at ZMH makes sense because the study already established that there was shortage of staff (6 clinicians and one psychiatrist who were managing a 450-bed hospital including OPD services) against huge numbers of patients at the hospital. This was compounded by referring institutions and guardians being reluctant to come and pick up discharged patient from the hospitals. With a heavy workload, providers are likely to focus on clinical and nursing care services rather than doing some QI projects. Just like the ZMH hospital study, heavy workload was also an established organisational barrier that led to inadequate time to implement QI programs in other contexts (Addington et al., 2012; Solomons & Spross, 2011 & Luxford et al., 2011).

Another finding on barriers to implementing QI programs at ZMH was inadequate supervision by hospital management. There may be several factors that can be attributed to inadequate managerial supervision at the hospital. Lack of skilled managers, limited resources, and time are some of the common reasons for inadequate supervision. Bosch-Capblanch, Liaqat, & Garner's (2011) established

that in many hospitals in low-income countries, most healthcare workers work alone or in isolation resulting in errors, poor standards of care and poor adherence to guidelines hence the need for managerial supervision. This is against the background that supportive supervision and direct involvement of management in QI activities in hospital settings helps build capacity, improves the quality of patient care services, brings desired clinical outcomes for the patients and indeed determines the successful implementation of QI activities (Bailey et al., 2016). Unlike inadequate management supervision being a barrier at ZMH, Saraceno et al. (2007) found that insufficient leadership skills was one of barriers to implementing a QI in low and middle income countries.

Knowledge, commitment and motivation are known to play a crucial role in achieving goals and objectives of any project. The fact that providers pointed out the lack of training (both short and long term) at ZMH could explain why they felt there is a knowledge gap and lack of commitment for implementing QI project at the facility. The study findings showed that lack of motivation was attributed to low salaries and lack of training workshops (that attract allowances) as compared to private and general hospitals respectively. ZMH study participants' observation of a lack of motivation as one of the barriers may be true because researchers have established that the concept of staff motivation is one of the fundamental forces that makes health workers strive to achieve their goals and expectations in a hospitals and program implementation (Gift & Obindah, 2020). Since motivation of workers positively influence their performance and success of an organisational goals (Tella & Ibinaiye, 2020), can be observed through their interactions and work environment, policies and organisational culture plays an important role in motivating workers and influencing their performance Hence this is a wake-up call for ZMH management to review their policies and see how best they help their workers.

Limited or lack of resources was one of the perceived barriers to implementing QI programs at ZMH. Even though ZMH providers focussed on shortage of staff, medical supplies and funding as resources that affect prioritisation between QI programs and other core programs at the facility, comprehensive resources needed to support implementation of QI in mental health goes beyond that. Management and leadership, infrastructure (both physical and data), systems including information, finance, human, and other relevant materials, are some of the required resources for successful implementation of QI programs. Perceived limited resources by providers at ZMH could easily be confirmed by researcher observations of dilapidated infrastructure, such as buildings (especially corridors). Lack of technical knowledge in designing, planning and implementing QI programs as reported by the staff members point out the lack of investments in knowledge that would assist

providers to successfully implement QI programs. Perceived lack of resources at ZMH supports the findings there is a systematic lack of resources in terms of policy, infrastructure, human, community and finance resources in mental health especially in low income countries (Saxena, Thornicroft, Knapp, & Whiteford, 2007).

### **5.8. Facilitators to Implementing QI Programs**

In order to improve quality of mental health services, a number of factors are needed to help in implementing the desired processes. These factors facilitate the implementation processes so that the desired change can be realised. ZMH's staff members' perception were that staff motivation, innovations and collaboration, and in-service training were facilitators while training (specialised and workshops), availability of resources, teamwork, positive attitudes, and commitment from the management team were established as recommended factors that, if applied, would facilitate the implementation of a QI program and indeed improve quality of services at the hospital.

There are many similar studies in both general and mental healthcare settings that explored facilitators to implementing QI programs or improve services. When comparing the results, similarities are more prominent than the differences. Just as for the ZMH study, results of other studies in developed world showed a number of facilitators to implementing QI programs. These included leadership, team work, coordination, involvement of relevant stakeholders (doctors, nurses, other workers and partners), motivating of healthcare workers, use of relevant indicators (with clear definitions, evidence based, and inclusiveness), use of relevant promotional strategies (such as developing capacity to monitor care), use of relevant implementation strategies (user friendliness, and used audit tools), utilization of the available data, resources (such as infrastructure, finance, human) (Kilbourne, Beck, Spaeth-Rublee, et al., 2018; Addington et al., 2010; Kaplan et al., 2010; van de Steeg et al., 2013; Zoutman & Ford, 2017). However, Van de Steeg et al (2013) say that, apart from leadership, flexible methodologies and good support and guidance during implementation of a QI program were the most crucial facilitators to the successful implementation of QI programs in 19 Netherlands hospitals that focused on older hospitalised patients. These established facilitators in their study were grouped into process factors, content factors and contextual factors respectively. Some studies however, established different results. For example, Mills et al., (2019) established that incentives for participation in the QI programs, reinforcement of desired staff behaviour, feasibility of intervention activities were important factors in achieving the desired change and use of data to quantify improvements from implementing a QI program. In another study in Pakistan (Rasheed et al., 2022) found that strong support from and involvement of hospital leadership or management,

enhancing real-time recognition and feedback, as well as fostering value-creation through the active participation of both national and international celebrities were perceived facilitating factors to implementing QI programs.

ZMH members of staff's perceptions that staff training may lead to successful implementation of QI projects was likely to be accurate because training imparts knowledge and skills. During QI training, providers are able to learn and acquire skills on managing health care systems, managing time, managing complex multi-dimensional teams, the ability to translate QI methodology into actual practice, and project implementation (Jones, Vaux, & Olsson-Brown, 2019). Similar to this finding, a study in Atlanta, USA, where a short term QI training at the Emory Healthcare for multidisciplinary staff members in an integrated healthcare system led to successful QI project implementation (Rask et al., 2011). In their study, they also observed that many QI projects were active up to one year after the training. This finding in the ZMH study therefore underscores the need for staff training in QI for successful implementation of QI programs.

Since this study already established that limited resources was one of the barriers to implementing QI programs, availability of resources was likely to be perceived as a facilitating factor. Availability of resources is crucial for any service or program to run. Having the required resources will facilitate smooth implementation of QI programs within the desired timeframe

In order to achieve the goals and objectives of any project, team work is one of the catalysts. In QI projects, team work provides the basic needed foundation for implementing QI initiatives or activities. Since this study has highlighted many challenges for successful QI implementation, promoting teamwork may be a necessary approach for addressing some of these challenges. It is crucial to note that team work is not only important for patients and workers' safety, but also for boosting morale and improvement in interpersonal relationships in the workplace and as a facilitator for QI programs implementation (McGonagle et al., 2016).

Staff motivation is of paramount importance if the hospital or indeed any healthcare organisation wants to be productive because motivated staff members are more likely to achieve the goals and objectives of providing quality health care (Gift & Obindah, 2020). Motivated staff members tasked to implement QI activities will be able to work diligently and positively contributing to the success of the program. However, motivating staff at ZMH where resources are limited with poor management support and a heavy workload, may not be a simple task.

Innovation was the other established facilitators to QI at ZMH. By definition, innovation is the process where an individual or organisation utilizes mental abilities to create a new thought or concept aimed at improving their services, processes, strategies, activities, and skills (Rosenblatt, 2011). In the medical field, an important source of innovations are university hospitals (Weigel, 2011). As a referral mental hospital in Malawi, ZMH is a teaching hospital for all colleges and universities that train mental health workers in Malawi. Being a teaching hospital, the innovation potential and capabilities of providers, lectures, students and other stakeholders cannot be underestimated. The fact that there were some QI projects in other general hospitals, such as infection prevention, model ward, audits of incidents and health talks confirms this potential for innovation.

Collaboration among stakeholders was another perceived current facilitator to implementation of QI programs. Some studies have established positive effects of collaboration among team members and stakeholders in implementing an improvement program. A study of improving the safety and effectiveness of parenteral nutrition in USA found that collaboration between pharmacists and registered dietitians was one of the process improvement strategies used that resulted in better patients outcomes (Boitano, Bojak, McCloskey, McCaul, & McDonough, 2010). Successful implementation of QI program needs collaborative efforts from different stakeholders.

### **5.9. Study Strengths**

- This study, which focussed on quality improvement in mental health at ZMH, is the first of its kind conducted at the hospital. While previous studies have focused on specific areas such as adverse drug reactions, patients' nutritional status, and management of aggressive behaviors, this particular study takes a comprehensive approach to quality improvement across all services at ZMH. The exploration of the overall quality improvement from the perspectives of both patients and healthcare providers makes this study unique in its scope. The results of this study therefore, hold significant value for the management of ZMH and other stakeholders involved in the provision of mental health services. The findings provide valuable insights and recommendations for enhancing the quality of care provided, benefiting the hospital's management and contributing to the overall improvement of mental health services.
- The qualitative method generated a deeper understanding from patients and staff members experiences, and insight to the magnitude of challenges with quality of care at ZMH

- The study underscored the need for ZMH to focus QI issues at the facility as the perceptions of quality of care reflecting many quality of care problems were collected from both providers and discharged patients.
- This study contributes positively to the QI program at ZMH. Some of the challenges and recommendations established will help the hospital to be focused, prioritise and engage relevant stakeholders in designing and implementation of QI strategies.

#### **5.10. Limitations**

There are several limitations to this study:

- The researcher observed that certain providers were hesitant and less willing to openly discuss quality-related issues due to the sensitive nature of the topic, particularly when it involved incidents and the fact that they were directly involved in delivering services. This hesitation may have been influenced by their familiarity with the researcher.
- Many discharged patients were preoccupied with going home and despite the researcher's explanation on the aim of the interview, some thought that the questions were part and parcel of the discharge process and that the results would determine the time for them to be picked up to be taken home.
- The study took place at one government mental hospital hence may not reflect the situation in other non-government (Christian Health Association) mental hospitals in Malawi.
- Participants in this study were limited to those directly involved with daily patients' clinical and nursing management (providers) and discharged patients. To get a full picture of perceived quality of care, other members of staff (administrators, hospital ombudsman, hospital attendants and guards) and stakeholders should be consulted in further research.
- The researcher's prior experience at the facility and involvement in data collection (interviews) could have influenced the level of openness and trust from other providers, considering the nature of the study.

#### **5.11. Study Implications as Regard to QI in Mental Health Services in Malawi**

This section presents the implication of the study findings and recommendations regarding service delivery (ZMH), policy education and research.

### **5.11.1. Study implications for service delivery (ZMH)**

The findings of the study have implications for improving the quality of mental health services at ZMH including medico-legal issues to be followed up. These factors will inform the development of the QI program. The hospital therefore needs to focus on mitigating the mentioned challenges as follows:

- Strengthen reporting of incidents and the mechanisms to investigate and report to the relevant authorities so that appropriate actions can be taken. This will ensure that staff and patients are protected all the time.
- Using systematic, evidence-based quality improvement frameworks so that services can be more efficient and effective in meeting patients' individual needs and expectations. Apart from the Donabedian framework used in this study, the hospital may also use other frameworks that are also commonly used in Sub Saharan African settings. The IOM and WHO frameworks that focuses on six quality improvement areas such as patient safety, effectiveness of therapies, patient centeredness approach, timeliness, efficiency and equitability can help improve services at the hospital.
- Taking advantage of available stakeholders in mental health in Malawi to help in formulating a QI policy that should aim at improving services and indeed protecting the welfare of the patients. These stakeholders include the Mental Health Association (Mental Health Users and Carers Association-MEHUCA), the Ministry of Health (Quality Improvement Directorate), Kamuzu University of Health Sciences (KuHes), Scotland Malawi Mental Health Education Project.
- Investing in training both long and short term, recruiting more key providers especially those cadres that are not currently available. Hospital management should be vigilant making sure that all processes at the hospital are being done in line with stipulated clinical, nursing and other relevant policies and guidelines. Supportive supervision, monitoring and evaluation of services through audits and indeed surveys are crucial activities that management can prioritise in order to improve quality of services that would satisfy the patients who are the consumers of the services at the hospital. The hospital needs to integrate QI programs in the daily hospital activities because QI is a continual process.

### ***5.11.2. Implications for QI on policy***

Based on the identified challenges in the study, it appears that there is a lack of policy regarding standards of care at the facility, including quality measurements and indicators. If such a policy exists, its implementation seems to be inadequate. This situation serves as a wake-up call for the Ministry of Health (MOH) and stakeholders to develop or review a quality improvement (QI) policy specifically for mental health and ensure its effective implementation. The policy should encompass regular and systematic measurement of service quality within the hospital, as well as clearly defined quality indicators. It should also provide guidance for mental health facilities on crucial aspects such as staff-patient ratio, resource mobilization (including funding), infrastructure standards, and the establishment of minimum standards for mental health care, in order to meet the individual needs of patients effectively.

### ***5.11.3. Implications for Education***

The findings showed lack of knowledge and poor attitudes as some of the factors that hinder improvement of services and QI program implementation at the hospital. Health education institutions need to incorporate QI in their curricula for nurses, clinical officers, medical doctors and specialist. This will impart QI knowledge that may even change health workers' negative attitudes towards continuous changes for improvement.

### ***5.11.4. Implications for QI research***

For the researcher's knowledge, there has been very little research in QI in the Malawian healthcare system including mental health. This study therefore has established research gaps in QI in mental health care in Malawi. This being the first study on quality on mental health services in Malawi, there is a need for more research to be conducted in order to bring more evidence-based QI issues in our setting. The Malawi government, through MOH and Education, should focus on funding for QI research so that implementation of improvement projects in the health sector can be informed by the evidence.

## **5.12. Study Conclusion**

A qualitative study was done at the ZMH to explore the perceptions of care quality of mental health services, and barriers and facilitators to implementing a QI program at ZMH. Nine discharged patients and ten providers were purposively selected, and data were collected through a semi structured interview.

The findings revealed perceived good and poor quality of services in structures, processes, and the outcomes. The good services were related to provision of free food, clean linen and clothes, availability effective treatment, and supportive providers, especially nurses. The bad services were related to lack of adequate assessments and treatments, violence in the wards, sudden deaths of patients, high numbers of patients abscondments, and poor quality and quantity of food.

The study further found that a heavy workload, inadequate management supervision, lack of knowledge, lack of staff motivation, limited resources and lack of commitment were some of the barriers to implementing a QI program at ZMH. However, training, availability of resources, teamwork, staff motivation, positive attitudes, innovation and corroboration, and commitment from the management were established as key facilitators of implementing a QI program at ZMH

The findings suggest the need for investing in mental health structures, QI policy formulation and implementation, and incorporation of QI in training and daily routine activities at the hospital.

The study findings will act as a reference for ZMH and other stakeholders during designing and implementation of QI programs. The results help the management and QI teams to be focused on and prioritise the QI areas based on the needs established from both providers and patents.

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## 7. APPENDICES

### 7.1. Appendix A: Member of staff information sheet and informed consent form

University of Cape Town

Alan J Fisher Centre for Public Mental Health

Department of Psychiatry and Mental Health

46 Sawkins Road,

Rondebosch, 7700

Cape Town, South Africa



**TITLE OF THE RESEARCH PROJECT: *EXPLORING PERCEPTIONS OF CARE QUALITY, AND THE BARRIERS AND FACILITATORS TO IMPLEMENTATION OF A QUALITY IMPROVEMENT PROGRAMME AT ZOMBA MENTAL HOSPITAL, MALAWI***

**Researcher names:** Owen Chapweteka Mwale

I would like to invite you to participate in this research project. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Before we start, take your time to read through this information sheet. If there is anything that is not clear or if you would like more information, I will be happy to explain it to you.

#### **What is the purpose of the study?**

Mental disorders are very common worldwide. However, the quality of care being provided is often sub-standard, and there are problems with patients accessing and receiving care.

This study will explore the barriers and facilitators of QI at ZMH.

#### **Why have I been invited to take part?**

You are being invited to participate in this study because we are interviewing staff at ZMH. We want to have a better understanding how people understand the current mental health services and how we could improve these.

**What will happen if I take part?**

If you choose to take part in this study, we will ask you about your thoughts and opinions relating to the quality of services, and the barriers and facilitators to QI at ZMH. The interview will be conducted in a quiet room and will take about 30 minutes of your time. We will also record the interview.

**Do I have to take part?**

Participating in the study is completely voluntary. You are free to choose whether to take part or not and your refusal will not disadvantage you in anyway. All the information given will be kept strictly confidential. You are free to refuse to answer any question that you feel is very sensitive to you.

**What if I change my mind about taking part?**

You are free to withdraw from the study without having to give a reason and at any point in the process. If you decide to withdraw from the study, we will remove all your information. Withdrawing from the study will not affect your work at ZMH.

**What are the possible risks of taking part?**

There are no physical or psychological risks involved in participating in this study. Nevertheless, the interviews may be tiresome and may raise feelings in you. If you feel upset by the interview, we can discuss this and if necessary, I can refer you to a mental health professional to discuss these further. It is important to note that there are no invasive procedures to be conducted during the interview, only discussions with the person interviewing you.

**What are the possible benefits of taking part?**

There are no direct benefits to you. The information we collect will be used to improve the quality of mental health services at ZMH.

Data handling, privacy and confidentiality

The study will observe privacy and confidentiality throughout. The interviews will be conducted in a private room. The collected information (recordings and written transcriptions of the recordings) will be saved and encrypted with passwords and kept in secured and lockable rooms. Only the researcher and supervisors will have access to the information and in case sensitive information has been reported, the Hospital policy will be followed on reporting the incidences so that they can be investigated, without disclosing the person who has reported.

**How is this research project being funded?**

The study is being funded through the African Mental Health Research Initiatives (AMARI).

**What will happen to the results of the study?**

A thesis will be written and may be published in journals and presented at international conferences. Your identity will remain anonymous, and your information will be combined with that of all the other participants so that no information linked to your personal identity will remain.

**What if I have further questions, or if something goes wrong?**

If you have been affected or harmed in any way during this study, or you wish to raise a complaint about the conduct of the study, you can contact the Chairperson of the Human Research Ethics Committee, University of Cape Town on 021-406 6626 or marc.blockman@uct.ac.za, or the National Health Sciences Research Council of Malawi. Address: The National Health Sciences Research Council of Malawi, MOH, P.O Box 30377, Lilongwe. Phone +265111553751.

**Who should I contact for further information?**

If you have any questions or require more information about this study, please contact Owen C. Mwale, University of Malawi, College of Medicine P/bag 360, Blantyre or call on +265999387091.

**Consent Form**

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of the Information Sheet to keep and refer to at any time.

**Participant statement**

I.....I am consenting to take part in this study after receiving all necessary information about the study. I have been given and I have understood all the important information about the study.

I understand that I am freely consenting to take part in this study and I know that all my personal information will be kept strictly confidential during and after the study.

I understand that I have the right to withdraw from the study at any time even without giving any proper reason for my decision.

I understand that there is no monetary or material benefit for participating in this study.

I understand that the interview will be audio recorded.

Participant’s signature: ..... Date: .....

**Statement by the interviewer:**

I.....confirm that I have explained all the details (aims, benefits and risks) regarding this research to the participant

## 7.2. Appendix B: Discharged patient information sheet and informed consent form

University of Cape Town



Alan J Fisher Centre for Public Mental Health

Department of Psychiatry and Mental Health

46 Sawkins Road,

Rondebosch, 7700

Cape Town, South Africa

**TITLE OF THE RESEARCH PROJECT: *EXPLORING PERCEPTIONS OF CARE QUALITY, AND THE BARRIERS AND FACILITATORS TO IMPLEMENTATION OF A QUALITY IMPROVEMENT PROGRAMME AT ZOMBA MENTAL HOSPITAL, MALAWI***

Researcher names: Owen Chapweteka Mwale

I would like to invite you to participate in this research project. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Before we start, take your time to read through this information sheet. If there is anything that is not clear or if you would like more information, I will be happy to explain it to you.

### **What is the purpose of the study?**

Mental disorders are very common worldwide. However, the quality of care being provided is often sub-standard, and there are problems with patients accessing and receiving care.

This study will explore the quality of care provided and barriers and facilitators of QI at ZMH.

### **Why have I been invited to take part?**

You are being invited to participate in this study because we are interviewing discharged patients from ZMH. We want to have a better understanding of how people understand the current mental health services and how we could improve these.

**What will happen if I take part?**

If you choose to take part in this study, we will ask you about your thoughts and opinions relating to the quality of services, and the barriers and facilitators to QI at ZMH. The interview will be conducted in a quiet room and will take about 30-45 minutes of your time. We will also record the interview.

**Do I have to take part?**

Participating in the study is completely voluntary. You are free to choose whether to take part or not and your refusal will not disadvantage you in anyway. All the information given will be kept strictly confidential. You are free to refuse to answer any question that you feel is very sensitive to you.

**What if I change my mind about taking part?**

You are free to withdraw from the study without having to give a reason and at any point in the process. If you decide to withdraw from the study, we will remove all your information. Withdrawing from the study will not affect your care at ZMH.

**What are the possible risks of taking part?**

There are no physical or psychological risks involved in participating in this study. Nevertheless, the interviews may be tiresome and may raise feelings in you. If you feel upset by the interview, we can discuss this and if necessary, I can refer you to a mental health professional to discuss these further. It is important to note that there are no invasive procedures to be conducted during the interview, only discussions with the person interviewing you.

**What are the possible benefits of taking part?**

There are no direct benefits to you. The information we collect will be used to improve the quality of mental health services at ZMH.

**Data handling, privacy and confidentiality**

The study will observe privacy and confidentiality throughout. The interviews will be conducted in a private room. The collected information (recordings and written transcriptions of the recordings) will be saved and encrypted with passwords and kept in secured and lockable rooms. Only the researcher and supervisors will have access to the information.

**How is this research project being funded?**

The study is being funded through the African Mental Health Research Initiatives (AMARI).

**What will happen to the results of the study?**

A thesis will be written and may be published in journals and presented at international conferences. Your identity will remain anonymous, and your information will be combined with that of all the other participants so that no information linked to your personal identity will remain.

**What if I have further questions, or if something goes wrong?**

If you have been affected or harmed in any way during this study, or you wish to raise a complaint about the conduct of the study, you can contact the Chairperson of the Human Research Ethics Committee, University of Cape Town on 021-406 6626 or marc.blockman@uct.ac.za, or the National Health Sciences Research Council of Malawi. Address: The National Health Sciences Research Council of Malawi, MOH, P.O Box 30377, Lilongwe. Phone +265111553751.

**Who should I contact for further information?**

If you have any questions or require more information about this study, please contact Owen C. Mwale, University of Malawi, College of Medicine P/bag 360, Blantyre or call on +265999387091

**Consent Form**

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of the Information Sheet to keep and refer to at any time.

**Participant statement**

I.....I am consenting to take part in this study after receiving all necessary information about the study. I have been given and I have understood all the important information about the study.

- I understand that I am freely consenting to take part in this study and I know that all my personal information will be kept strictly confidential during and after the study.
- I understand that I have the right to withdraw from the study at any time even without giving any proper reason for my decision.
- I understand that there is no monetary or material benefit for participating in this study.
- I understand that the interview will be audio recorded.

Participant's signature: ..... Date: .....

**Statement by the interviewer:**

I.....confirm that I have explained all the details (aims, benefits and risks) regarding this research to the participant.

### 7.3. Appendix C: In-depth interview guide for providers

University of Cape Town



Alan J Fisher Centre for Public Mental Health

Department of Psychiatry and Mental Health

46 Sawkins Road,

Rondebosch, 7700

Cape Town, South Africa

**TITLE OF THE RESEARCH PROJECT: *EXPLORING PERCEPTIONS OF CARE QUALITY, AND THE BARRIERS AND FACILITATORS TO IMPLEMENTATION OF A QUALITY IMPROVEMENT PROGRAMME AT ZOMBA MENTAL HOSPITAL, MALAWI***

**IN-DEPTH INTERVIEW GUIDE FOR STAFF MEMBERS**

**Section A: Sociodemographic data**

Participant's ID: .....Date of Interview: ..... Time: .....

1. Gender: M/F
2. Age: .....
3. Cadre.....
4. Marital Status
  - Single
  - Married
  - Widow/ Widower
  - Divorced
5. Years in service
  - 1 to 5
  - 6 to 10
  - 11 to 15

- 16 and above

1. Educational level

- Primary school
- Secondary school,
- Tertiary

**Section B: Guiding Questions for in-depth interviews for the workers**

1. What is the admission process of client suffering from mental disorders at ZMH?
2. Can you tell us about the process of patient care from admission to discharge at the hospital?
3. What do you understand by quality mental health services?
4. What is your general view about the quality of mental health services at ZMH?
5. How can the ZMH management contribute to QI in mental health?
6. What QI initiatives have the ZMH initiated or supported?
7. What mechanisms or approaches are used to improve quality at the hospital?
8. Which performance indicators or quality indicators does ZMH use?
9. What are the principal barriers or challenges to QI of mental health services at ZMH?
10. How can ZMH overcome the barriers to QI?
11. Are there facilitators of QI of mental health services at ZMH?
12. As a member of staff, which areas would you like the hospital to improve as far as quality mental health services are concerned?
13. Do you have anything to say concerning quality mental health services at ZMH?

#### 7.4. Appendix D: In-depth interview guide for discharged patients

University of Cape Town



Alan J Fisher Centre for Public Mental Health

Department of Psychiatry and Mental Health

46 Sawkins Road,

Rondebosch, 7700

Cape Town, South Africa

**TITLE OF THE RESEARCH PROJECT: *EXPLORING PERCEPTIONS OF CARE QUALITY, AND THE BARRIERS AND FACILITATORS TO IMPLEMENTATION OF A QUALITY IMPROVEMENT PROGRAMME AT ZOMBA MENTAL HOSPITAL, MALAWI***

**IN-DEPTH INTERVIEW GUIDE FOR DISCHARGED PATIENTS**

**Section A: Sociodemographic data**

Participant's ID: .....Date of Interview: ..... Time: .....

2. Gender: M/F

3. Age: .....

4. Marital Status

- Single
- Married
- Widow/ Widower
- Divorced

5. Religious affiliation

- Muslim
- Christian
- Other

6. Educational level

- Primary school
- Secondary school,
- Tertiary

## Section B: Guiding Questions for in-depth interviews for the Patients

1. When were you admitted to Zomba mental hospital?
2. Can you tell us how you were brought and admitted to this hospital and how long you stayed at the hospital?
3. Tell us what you feel was good about the way you were
  - a. admitted and
  - b. looked after in the hospital.
4. Now tell us about what you feel was bad about the way you were
  - a. admitted and
  - b. looked after at the hospital.
5. If you knew someone was going to be admitted to ZMH, what would you tell them and their family about the quality of the services? both good and bad things.
6. What do you think makes the services you received at the hospital **good**?
7. What do you think makes the services you received at the hospital **bad**?
8. If it happens that you are admitted again at the hospital, which areas would you like to see improved?

Do you have anything you would like to share with us concerning the care you received at the hospital?

## 7.5. Appendix E: Human Research Ethics Committee (HREC) approval letter



**UNIVERSITY OF CAPE TOWN**  
**Faculty of Health Sciences**  
**Human Research Ethics Committee**



Room E53-46 Old Main Building  
Groote Schuur Hospital  
Observatory 7925  
Telephone [021] 406 6492  
Email: [sumayah.arijefdien@uct.ac.za](mailto:sumayah.arijefdien@uct.ac.za)  
Website: [www.health.uct.ac.za/fhs/research/humanethics/forms](http://www.health.uct.ac.za/fhs/research/humanethics/forms)

01 November 2019

**HREC REF:611/2019**

**Dr Z Abrahams**  
Department of Psychology  
Room 3, The Annex  
46 Sawkins Road, Rondebosch

Dear Dr Abrahams

**PROJECT TITLE: EXPLORING PERCEPTIONS OF CARE QUALITY, AND THE BARRIERS AND FACILITATORS TO IMPLEMENTATION OF A QUALITY IMPROVEMENT PROGRAMME AT ZOMBA MENTAL HOSPITAL (ZMH), MALAWI (MASTER'S DEGREE OWEN CHAPWETEKWA MWALE)**

Thank you for your response letter dated 16 October 2019, addressing the issues raised by the Human Research Ethics Committee (HREC).

It is a pleasure to inform you that the HREC has **formally approved** the above-mentioned study.

**Approval is granted for one year until the 30 November 2020.**

Please submit a progress form, using the standardised Annual Report Form if the study continues beyond the approval period. Please submit a Standard Closure form if the study is completed within the approval period.

(Forms can be found on our website: [www.health.uct.ac.za/fhs/research/humanethics/forms](http://www.health.uct.ac.za/fhs/research/humanethics/forms))

**The HREC acknowledge that the student: Owen Mwale will also be involved in this study.**

**Please quote the HREC REF in all your correspondence.**

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please note that for all studies approved by the HREC, the principal investigator **must** obtain appropriate institutional approval, where necessary, before the research may occur.

Yours sincerely

**PROFESSOR M. BLOCKMAN**  
**CHAIRPERSON, FHS HUMAN RESEARCH ETHICS COMMITTEE**

Federal Wide Assurance Number: FWA00001637.  
Institutional Review Board (IRB) number: IRB00001938

HREC 611/2019

NHREC-registration number: REC-210208-007

This serves to confirm that the University of Cape Town Human Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use: Good Clinical Practice

## 7.6. Appendix F: Zomba Mental Hospital Approval Letter

Ref. No.  
Tel. No. 01- 524 344/01525200  
Telex No. : Felix G. Mulewa (BNMW/18)  
E-Mail: zombamental@gmail.com

Please address all communications to:  
The Director of Mental Health Services



MINISTRY OF HEALTH  
ZOMBA MENTAL HOSPITAL  
P.O BOX 38  
ZOMBA  
MALAWI

14<sup>th</sup> November, 2019

The University of Malawi  
College of Medicine  
P/Bag 360  
Blantyre  
Attention: Owen Chapweteka Mwale

Dear Sir,

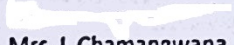
**RE: REQUEST TO CONDUCT A STUDY "EXPLORING PERCEPTIONS OF CARE QUALITY AND THE BARRIERS AND FACILITATORS TO IMPLEMENTATIONS OF A QUALITY IMPROVEMENT PROGRAM AT ZOMBA MENTAL HOSPITAL**

Reference is made to your letter dated 6<sup>th</sup> November, 2019 on the above issue.

Zomba Mental Hospital Management is pleased to inform you that your request to conduct a research project entitled: " Exploring Perceptions of Care quality and the Barriers and Facilitators to Implementations of a Quality Improvement Program at Zomba Mental Hospital" has been accepted. The hospital is looking forward to working with you during this study time. Please remember to remind the hospital management at least a week before the study.

Wishing you all the best.

Yours faithfully,

  
Mrs. I. Chamangwana  
DIRECTOR OF MENTAL HEALTH SERVICES

## 7.7. Appendix G: National Health Sciences Research Committee (NHSRC) approval letter

Telephone: + 265 789 400  
Facsimile: + 265 789 431

All Communications should be addressed to:

The Secretary for Health and Population



In reply please quote No.

.....  
MINISTRY OF HEALTH AND POPULATION  
P.O. BOX 30377  
LILONGWE 3  
MALAWI

18<sup>th</sup> December, 2019

Owen Chapweteka Mwale  
University of Cape Town

Dear Sir/Madam,

**Re: Protocol # 19/11/2453: Exploring Perceptions of Care Quality and the Barriers and Facilitators to Implementation of a Quality Improvement Programme at Zomba Mental Hospital, Malawi**

Thank you for the above titled proposal that you submitted to the National Health Sciences Research Committee (NHSRC) for review. Please be advised that the NHSRC has **reviewed** and **approved** your application to conduct the above titled study.

- **APPROVAL NUMBER** : 2453
- The above details should be used on all correspondences, consent forms and documents as appropriate.
- **APPROVAL DATE** : 18/12/2019
- **EXPIRATION DATE**  
This approval expires on 17/12/2020. After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the NHSRC Secretariat should be submitted one month before the expiration date for continuing review.
- **SERIOUS ADVERSE EVENT REPORTING**: All serious problems having to do with subject safety must be reported to the NHSRC within 10 working days using standard forms obtainable from the NHSRC Secretariat.
- **MODIFICATIONS**: Prior NHSRC approval using forms obtainable from the NHSRC Secretariat is required before implementing any changes in the protocol (including changes in the consent documents). You may not use any other consent documents besides those approved by the NHSRC.
- **TERMINATION OF STUDY**: On termination of a study, a report has to be submitted to the NHSRC using standard forms obtainable from the NHSRC Secretariat.
- **QUESTIONS**: Please contact the NHSRC on phone number +265 999 397 913 or by email on [mohdocentre@gmail.com](mailto:mohdocentre@gmail.com).
- **OTHER**: Please be reminded to send in copies of your final research results for our records (Health Research Database).

Kind regards from the NHSRC Secretariat.

For: CHAIRPERSON, NATIONAL HEALTH SCIENCES RESEARCH COMMITTEE  
Promoting Ethical Conduct of Research<sup>1</sup>

Executive Committee: Dr Dr M. Joshua (Chairperson), Dr E. Chitsa Banda (Vice-Chairperson)  
Registered with the USA Office for Human Research Protections (OHRP) as an International IRBIRB  
Number IRB00003905 FWA00005976

7.8. Appendix H: Map of Malawi, showing where Zomba Mental Hospital is located

