"EVALUATE NURSES AND DOCTOR"S PERSPECTIVE OF QUALITY OF MENTAL HEALTH EMERGENCY CARE AT MATHARI NATIONAL TEACHING AND REFERRAL HOSPITAL"

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DECLARATION

This dissertation is my original work and has not been presented for any award or degree in any other university.

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CERTIFICATE OF APPROVAL

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DEDICATION

This work is dedicated to the patients seeking health care in Mathari hospital, and the health care providers.

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ABSTRACT

Background: Quality is key to mental health care. Provision of quality mental health care a top priority globally. While quality basic health care has received increasing interest worldwide, there is less focus on the quality of mental health emergency care. There is no reliable literature on the quality of emergency mental health care. Quality of emergency mental health care is affected by insufficient educational preparation, poor infrastructure, health and safety concerns in busy mental health care units, and a shortage of standard care procedure guidelines. This has led to poor quality of care.

Objective: To establish quality of mental health emergency care at Mathari Hospital, nurses and doctors perspective.

Methodology: A descriptive cross-sectional study was conducted in Mathari Hospital, involving 132 nurses and 27 doctors. Self-administered questionnaires were completed by the respondents, key informant interviews were carried out among department In-charges. Data were collected for the duration of four weeks in 2017.

Data Analysis: Data was analyzed using SPSS software version 20. Association between socio-demographic characteristics and perceived quality of mental health emergency care was determined by calculating a confidence interval estimated at 95 percent. P-values were estimated using a chi-square test. A p-value of $\leq .05$ was considered statistically significant.

Results: Majority of the respondents were female 79% (n=124), with most of them 40% (n = 63) aged between 40-49 years. Most respondents 66% (n-105) indicated that the hospital is not structurally prepared to provide quality mental health emergency care. An average number of respondents 54% (n-85) were satisfied with the level of preparedness for management for mental health emergency care.

Conclusion: The study found out that quality of emergency care as fair.it was also found that there was a significant relationship between process factors, structural factors and quality of psychiatric emergency care at Mathari Hospital. The study recommended investing in human resource staff training on evidence based mental health emergency care, budgetary allocation for mental health emergency care should be stated clearly among other budgetary allocations

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LIST OF ABREVIATIONS AND ACRONYMS

APA	American Psychiatric Association
CMD	Common Mental Disorders
DALY	Disability adjusted life years-A summation of the years of life lost to premature mortality and years lost to disability (YLL+YLD)
FBO	Faith Based Organization
IOM	Institute of Medicine
KNH	Kenyatta National Hospital
KQM	Kenya Quality Management
LMIC	Low and Medium Income Countries
MNTRH	Mathari National Teaching and Referral Hospital
NGO	Non-Governmental Organization
SDGs	Sustainable Development Goals
SOPs	Standard Operating Procedures
UN	United Nations
UON	University of Nairobi
WHO	World Health Organization
YLD	Years Lost to Disability
YLL	Years of Life Lost

OPERATIONAL DEFINITIONS

Determinants	Factors that affect provision and of quality mental health emergency care.
Quality	The degree to which health care provision meets the minimum set standard.
Emergency care	Urgent evaluation and treatment offered by health care professionals to patients with mental health emergencies that poses risk to the patient's life.
Chemical restraint	Medication administered to a patient in a mental health unit who is violent or aggressive.
De-escalation	Establishing verbal exchange with an individual during a crisis situation in order to prevent the individual from causing harm to self or to others.
Mental Health	Emotional, psychological and social wellbeing.
Mental Health Emergency	A mental health related symptom that necessitates immediate therapeutic intervention. This may be suicidal behavior, alcohol withdrawal delirium, acute panic attacks, aggression or violence.
Structural Factors	Refers to those aspects that have an impact on the setting in which care is delivered. In this study, facility adequacy, medical equipment, staff adequacy and skills, availability of emergency drugs and supplies are considered.
Process Factors	All those activities of changing health inputs into improving the health status of those seeking psychiatric emergency care at mental hospitals. In this study the investigator included, provider client interaction, patient waiting time, adherence to SOPs and referral protocols.

CHAPTER ONE

INTRODUCTION

1.0: Background

Quality is key in any health care setting. Globally, it is estimated that the population that suffers from Mental, Neurological and Substance use disorders (MNS) is about 25% (WHO, 2001). Mental health disorders are estimated to contribute to about 13% of the global disease burden (WHO, 2004). Approximately, 75% of this global burden comes from low and middle-income countries which are reported to have limited access to proper treatment of these conditions (WHO, 2016). This is of concern because of the high prevalence and disabilities accompanying mental illness. Disability component attributes to between 25% and 33% of all years lived with disability in people with mental disorders (WHO, 2011). Deaths from suicide is not an uncommon outcome from untreated or poorly treated mental health disorders and account for up to 1 million deaths annually, (WHO 2002).

A mental health emergency is defined as any disruption in actions, feeling or thoughts that requires early and urgent therapeutic intervention to stabilize a patient with these symptoms. Emergencies in mental disorders are such as, verbalizing desire to commit suicide, severe depression, alcohol intoxication, acute panic attack, and agitation (Manual of Clinical Procedures, 2009). Quality emergency mental health care is a degree of the services provided to evaluate, intervene, stabilize, and improve the condition of a patient or to increase the possibility of the needed mental health outcome (IOM). Quality in mental health is part of the current Evidence-Based Practice (WHO, 2010). An individual with a mental disorder may experience a mental health emergency; however, this may occur even in the absence of a mental disorder.

Quality is key in mental health care, however there little reliable literature on quality of mental health care, and quality of emergency mental health care, (Letvak, Rhew, 2015). While quality basic health care has received increasing interest worldwide, there is less focus the quality of emergency mental health care in healthcare facilities. This makes provision of quality mental health care a top priority globally. Quality is among the most pressing issues currently in mental health care, quality assurance and improvement is one of the strategies to

improve health care (Institute of Medicine, 2006). There is no reliable literature on the quality of emergency mental health care. In Kenya, the prevalence of major mental illness is estimated at 4% which translates to approximately 1,600,000 people with major mental disorders (Marangu et al, 2014). However, there is no reliable literature on the quality of mental health emergency care. Similarly, there is no data on the occurrence of mental health emergencies, and quality of care provided (Ngui et al. 2010). Mental health care lacks standardization of quality assurance and improvement strategies. Recommendation has been made for studies to guide I development of standars of care based on evidence based practices (S. Nadiya, T. Jason, and S. Vicky, 2015). Existing literature recommends improvement in the quality of mental health emergency care (Mavrogiorgou et al, 2011). Responding to this challenge, the WHO has developed a mental health action plan 2013–2020 which prioritizes the provision of comprehensive, integrated and responsive quality mental health care services (WHO 2014).

Donabedian"s health care quality model is a valid model for evaluating quality of health care, (L. Moore, A. Lavoie et al, 2015). Most facilities that provide mental health care, especially in developing countries face many challenges ranging from lack of adequate resources to lack of suitable equipment needed in mental health emergency care, which limits provision of quality care, (Moyimane. et al, 2017)Some studies have indicated that quality of mental health care is affected by insufficient educational preparation, health provider biases and societal attitudes, over-crowding as well as safety concerns in busy mental health care units, and a shortage of standard care procedure guidelines [Atzema et al., 2012]. This has led to poor quality of mental health emergency care which may result in reduced individual functioning, patient feeling frustrated, angry, confused and desperate, ("O" Sullivan Iomhar, 2007). Quality emergency care promotes early restoration of mental and social functioning, minimizes suffering, prevents premature deaths when documented provides evidence for legislative policies and interventions, (Bostock, 2004; Das et al, 2007; Oyebede et al .2004).

A key challenge affecting the quality of mental health emergency care has been the limited resources allocated for mental health care witnessed in Low and Middle Income Countries (LMICs) which includes Kenya. Most of these countries have less than 1% of their total health budget allocated for mental health conditions (Manton, 2013). As the demand for basic mental health care increases, the number of mental health emergency cases has continued to

increase against the constrained capacity of the existing health systems to handle them effectively and efficiently (Manton, 2013). The ratio of visits involving mental health emergencies is also rising, with at least 1 in every 20 patients currently presenting a mental health complaint across the world. Across Sub-Saharan Africa, the proportion of the increase is even higher; more than 2 patients in some parts (Zeller, 2010).

To compound the problem, the number of health facilities satisfactorily handling mental health emergency cases has dwindled over time, largely due to fiscal deficits and lack of adequate resources to sustain the operations. For example, more than 20% of emergency departments (EDs) across the United States were closed between 1991 and 2006. Data for Sub-Saharan and Africa is scanty and limited in this aspect. This has led, to the available facilities becoming overcrowded, which leads to delays and long wait times in treatment even for serious emergency mental health problems, which affects the quality of care (Marangu et al., 2014). According to Pulse Report (2010), the average ED wait time nationwide in the US in 2009 was 4 hr 7 min. In Mathari Hospital in Kenya, it is estimated to be between 4-5 hours, in which most of the time, no patient assessment and triaging are done (Hospital Service Statistics, 2015). The long waiting time compounded by lack of regular patients triaging is contrary to principles of providing emergency mental health care, which emphasizes use of a human right based approach which requires health care providers to recognize, diagnose and manage the individuals at risk, and or treat those symptoms and conditions that may be reversible if detected early to reduce progression to an emergency state. (Peter et al., 2016). Patients with the mental health disorder have a right to the highest standard of mental health, (WHO Quality Tool Kit, 2012). For patients with mental health emergencies, lack of adequate care delivery resources and timely services means that the quality of service is adversely affected. Quality standards of care entail evaluation and stabilizing of all patients who present with mental health emergencies (White paper, 2013).

Human resource is an important asset of mental health emergency care provision, quality care in mental health relies on the human resource that is competent and motivated to work (WHO, 2005). Mental health service providers are “overwhelmed” by rising demand for mental health care and increase in staff shortage. In 2005, for Low Middle-Income Countries (LMIC) had a shortage of 1.18 million workers, this included 55,000 psychiatrists and 628,000 nurses in mental health settings. It was projected that if the supply of mental health

workers remained the same, the shortage would increase to 1.71 by 2015, a 45% increase. (WHO, 2011). In 2002 WHO launched the Mental Health Global Action Program (MH GAP) to address the worrying trend in human resource. According to WHO report, the global workforce population is 10.7 staff per 100 000. (WHO, 2011) Kenya faces a severe shortage of specialists in the mental health workforce. There are 54 psychiatrists and 418 trained mental health nurses (Ndetei, D.et al,.2007) to cater for a population of 43million of whom 4% may suffer from a mental disorder. (World Bank, 2012)The purpose to assess and document nurses" and doctors" perceived determinants of quality of mental health emergency care provided at Mathari with a view of informing quality improvement initiatives for provision of care.

1.1: Problem Statement

Mental health disorders account for about 15% of Disability adjusted life years (DALYs) globally most of which is in the LMICs (WHO 2016). The burden is expected to be even greater considering the increase in the number of emergency visits by patients with mental health disorders (Monton 2013). To reverse this trend, the UN assembly identified provision of high quality mental health as a priority and a goal of the Sustainable Development Goal (SDGs) (WHO 2015). However, quality of mental health emergency care in LMICs has been adversely affected due to underfunding, under staffing, and lack of prioritization. Currently, daily mental health emergency cases which include, agitation, violent patients, acute psychosis, alcohol intoxication and suicidal attempts in the hospital range from 15% to 25%, (Hospital service statistics, 2016). However, there is limited information on the quality of emergency mental health care in Kenya, hence the quality of care provided during mental health emergencies cannot be ascertained. This study intends to look at how combinations of structure and process factors are perceived by nurses and doctors, to affect quality of mental health emergency care in Mathai Hospital.

1.2: Justification of the Study

Mathari hospital has an approximately 500 outpatient patient's monthly visit, of which about 100 are for patients presenting with the mental health emergency, cases and 780 inpatients monthly visits, with patients experiencing a mental health emergency at one given time

(Hospital Service Statistics, 2015). Reports indicate that the facility has experienced an increase in the basic and mental health emergency care .

Mathari Hospital, like other hospitals offering mental health care, is underfunded which affects the quality of care especially in mental health emergency care which requires additional resources to facilitate the provision of specialized and individualized care Kwoba E. and Mwangi A. et al,2014). This has the greater impact on the quality of care provided to the patients. Further, despite WHO recommending provision of quality care using a human rights-based, patient centered approach irrespective of the condition of the patient, there is limited studies and documentation on quality of mental health emergency care provided to patients in Kenya. In Mathari hospital, under quality improvement, Ward audit reports to the Nurse Service Manager addresses general housekeeping, where they report on ward cleanliness, patient 's safety and environment, staffing, documentation and essential supplies. In addition, there is a lack of evidence of assessment of the quality of emergency mental health care, as well as evidence regarding emergency mental health quality measurement tools, which hampers quality improvement initiatives (Nursing Service Manager Audit Reports, 2016). This study finding will provide useful information regarding the quality of emergency mental health care, to guide policy and institutionalized initiatives, practices, and reforms aimed at improving the quality of emergency mental health care in Kenya. Thus, this study was carried out to evaluate health nurses and doctors perceptions of structure and process factors on the quality of emergency mental health care at Mathari Hospital.

1.3: Research Question

The study was guided by the following research question;

1) What is the perceived quality of mental health emergency care
2) What are the structural factors influencing nurses and doctors' perception of the quality of mental health emergency care at Mathari hospital?
3) Which are the processes related factors influencing nurses and doctors' perception of quality mental health emergency care at Mathari hospital?

1.4: Study Objective(s)

1.4.1: Broad objective

To evaluate structure and process related factors that influence nurses and doctors perception of quality mental health emergency care at Mathari Hospital.

1.4.2: Specific Objectives

i. To explore nurses and doctors perceived the quality of emergency mental health care
ii. To evaluate structure factors influencing nurses and doctors perception of quality emergency mental health care.
iii. To determine the process factors influencing nurses and doctors perception of quality emergency mental health care among nurses and doctors in Mathari hospital;

1.4.3: Hypothesis

There is no relationship between structural factors and nurses" perception on quality of emergency mental health care.

There is no relationship between structural related factors and doctors" perception of emergency mental health care

1.5: Significance of the Study

The findings of this study will contribute new knowledge on quality of psychiatric emergency care in Kenya highlighting the gaps and opportunities for improvement. The results will champion provision of quality mental health emergency care in line with human rights conventions and constitutional requirements principles on quality healthcare delivery. This information will provide strategic value for policy makers, planners, managers and service providers in guiding relevant policy agendas, initiatives and appropriate interventions aimed at improving the quality of mental health emergency care. The study will also be documented for future references and research hence contributing to nursing and health service research body of knowledge and related discipline activities like training of mental health emergency care providers.

1.6: Scope and limitation

The study was assessing the structural and process factors influencing perception of the quality of emergency mental health care in Mathari Teaching and Referral Hospital. A public facility offering mental health care, located in Nairobi County. This study did not cover other public, Faith Based Organizations (FBO) private and NGO facilities providing mental health emergency care within Nairobi and across Kenya. As a result, the findings of the study will only be generalized to public specialized mental health care facilities in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.0: Introduction

Quality is the measurement of a degree in which services increase the likelihood of needed mental health results and are as per the current Evidence-Based Practice (WHO, 2003). Quality healthcare and improvement have been a challenge since the 19th century when medicine was of poor quality. This has evolved since 1910, from quality assurance to quality assessment improvement, to continuous quality improvement in 1988 with a multidisciplinary approach. This looked at all the areas of weakness healthcare provision. In 1992, the healthcare quality improvement initiative was proposed with the aim of establishing how well care conformed to published guidelines in a particular area, and use of algorithms depending on the patient history, (Luce et al, 1994).

In 2001, the Ministry of Health, Department of Standards and Regulatory Services (DSRS) started developing the Kenya quality model (KQM), which consisted of standards and a master checklist. This was in 2007, modified and improved to the Kenya Quality Health Model (KQHM) in 2009, which addresses twelve dimensions of quality, with quality standards for each dimension. KQMH emphasizes on adherence to standards and procedure guidelines, application of quality principles and tools to improve structure and processes to ensure sustained quality care. Quality healthcare would be defined conclusively after knowing the number of health care consumers who have received optimal health services for the type of service they sought, (Luce et al, 1994). Quality improvement is an integral part of ensuring the provision of optimal health services to all who need them, and should not be regarded as a separate program of health care (Funk et al, 2009). Quality healthcare provider for mental health patients has had little attention in terms of research, compared to other areas of mental health and medical problems, (Letvak&Dennis,2015)

2.1: Quality mental health emergency care

Quality mental health emergency care is the measurement of a degree in which health services increase the likelihood of needed mental health results and are consistent with the

current Evidence-Based Practice (WHO, 2003). Providing quality mental health emergency care is a global obligation that should be implemented collectively by all health stakeholders. Mental health emergency care is of significance when assessing the quality of patient care (Segal and Dittrich, 2011). According to CDC (2013), the economic downturn has significantly forced many developing countries to cut costs in public mental health spending. This has led to increasing number of patients in the emergency department (ED) as their only source of healthcare due to lack of proper primary emergency mental health care which could have averted most of the problems through early interventions (National Association of State Mental Health Program Directors, 2015). This coupled with the revelation that many mental health facilities in low to middle-income countries are not well equipped for the provision of mental health services, including mental health emergencies, significantly affects quality mental health care.

Emergency Departments in general hospitals perform a good job in determining how to improve the care of the medical patient but so little has been done in addressing the unique needs of the patients with mental health emergencies. Customer service surveys have identified many priorities for patient care and patient satisfaction in the mental health facilities and need for improvement. Patients with mental health disorders have a unique set of preferences that differ from the medical patients. The staff may be poorly trained in providing mental health services with evident lack of standard operating procedures in mental health hospitals in place, yet the patients require a patient-centered care administered using a human rights approach (WHO, 2009). Reviewed literature reveals that quality of mental health care is affected by infrastructural and operational capacity of the facility, societal attitudes, and the care provider biases, safety concerns, inadequate preparatory educational skills, and general over-crowding in the ever busy EDs as well as lack of appropriate care guidelines among others (Manton, 2013). Although few studies on quality of emergency mental health care exist, mostly in developing countries, quality-related studies have largely focused on patients with little emphasis on documenting provider views on the quality of care. This is despite providers being key stakeholders in the quality of the care delivery process. This study assessed the quality of mental health emergency care from the health care providers' perspectives.

There has been a shift in disease burden from communicable to non-communicable disease which has been accompanied by the increase in mental, neurological, and substance use (MNS) disorders which are now contributing significantly to the proportion of disease burden globally (Whiteford et al., 2013). Mental, Neurological and Substance Use Disorders (MNS) accounts for 10.4% of fatal DALYs (Harvey, 2015). Addressing this problem requires an increase in the provision of quality mental care, both primary for those at early stages and advanced, for those cases which require specialized care.

Quality of care has gained increasing interest in the last one decade. Many reforms in health care research on quality of care for emergency mental health patients is challenging. An emergency mental health is an urgent situation arising in relation to mental illness and or treatment that poses risk to the patient's health or life, or the lives of others that requires immediate intervention. There is no standard definition of what constitutes high quality of care for these patients. The (Institute of Medicine) IOM's measurements of the nature of care incorporate morbidity and mortality, cost and cost-adequacy, and patient-focused results, for example, personal satisfaction and quality of life. Considering results alone would overlook the causal instruments, making it troublesome for policymakers to plan interventions to enhance quality. Therefore, this study assessed perceived determinants of quality of emergency mental health care using three dimensions which interact to influence the quality of care; structure, process, and outcome

Quality mental health emergency care is standard care according to WHO Quality Rights Tool, offered to patients in crisis situations. These crisis situations severely impair an individual's functioning.

2.2: Factors Affecting Quality of Emergency Mental Health Care

This study sought to assess quality of emergency mental health care provided in Mathari Hospital. As discussed under theoretical frameworks, the model has been widely used to assess quality in health care delivery in different service delivery context including service satisfaction and quality of care reforms. The model uses three dimensions which play a complementary and interactive role in producing care: structure, process and outcome. Therefore, the three dimensions play a key role in influencing perceived quality of care.

However, reviews showed that although the model has been extensively used in health services research, the model has not been utilized in assessing quality of emergency mental health care with most of the studies focusing on rather a narrow scope of review. This affects reliability of quality outcomes. Therefore, the three dimensions of the model are used to review elements of quality related to the three dimensions applied in this study. Mathari Hospital has licensure from the government to operate as a mental health care providing institution. However there is no evidence of accreditation having been done at Mathari Hospital,(Quality Assurance reports Mathari).

2.2.1: Structural Factors

These refer to those factors that impact the structure in which care is provided. These include all factors that are enshrined within the healthcare system such as the equipment, physical facilities, human resource (HR), and organizational attributes, for example, staff training, capabilities and payment strategies. They control how patients and providers in a health care services framework act and the measures of the normal nature of care inside a framework or system. Care for emergency mental health patients involves inherent structural differences exhibited in the environment of care. Adequate resources ensure the provision of quality care in stabilizing acute cases (Eric R. et al, 2010)

The healthcare system has much been on the timeline due to lack of enough human resources for dispensing care to patients. It is even worrying that Emergency Physicians have little training in behavioural emergency medicine. There are few physicians specialized in the treatment and care of psychiatric patients (American Board of Emergency Medicine, 2015). According to reports, there are 10.7 mental health workforces per 100000 population in Africa. The deputy head of the mental health unit stated that in Kenya there are reported to be 88 psychiatrists with 427 trained psychiatric nurses spread across 14 mental health units countrywide. The shortage of mental health workforce is compounding the problem of lack of access to mental health care (Marangu et al, 2014). Psychiatrists and psychiatric nurses should be equipped with adequate education, skills, knowledge, and experience in emergency mental health care.

There are scarce resources allocated to psychological wellness in many Low and Middle-Income Countries (LMICs) representing under 2% of the aggregate wellbeing spending plan (Kwobah et al, 2017). The greater parts of the assets accessible are coordinated towards treating and overseeing seriously sick mental health patients in major mental health facilities (WHO, 2016). In many low to middle wage nations, HR for emotional well-being are constrained. For instance, in Kenya, there are less than 100 mental health specialists. A large portion of these is situated in Universities, National Referral Hospitals and a couple of local health facilities (Ndetei et al, 2010). This is greatly affecting the quality of mental health care provided at the mental health units with the already crippled healthcare system in the country.

Lack of sufficient education in the care of patients with mental disorders and a further shortage of services to treat these kinds of patients is indeed affecting quality service delivery (Stefan, 2010). Healthcare providers working in the mental health units perceive lack of knowledge, skills, and expertise in handling patients presenting with emergency mental health. There are reported problems with triage risk assessment, insufficient resources, together with the ongoing patient and staff safety concerns, and perception of a crippled mental health system (Manton, 2013). Their training should be in line with the current trends and technology, covering core competencies in emergency mental health care, (Brasch J. et al 2004). Health care should be available and affordable to increase access to all. Availability of health insurance coverage further increases the accessibility of health care, since this makes it easier for patients to seek health care interventions as the need arises. (National Healthcare Quality and Disparities Report, 2014)

Healthcare workers always have a feeling of helplessness and are frustrated with repeated mental health patient visits and readmissions leading to increased workload due to overcrowding of patients. This has affected the patient care processes and the perceived output (Abraham, 2014). Working in such environments requires highly motivated individuals. However, it is worsening that there are inadequate incentives to motivate and boost the morale of those working in the public mental health hospitals (Ndetei et al, 2010). There are inadequate medical equipment, drugs, and essential supplies which are necessary for the provision of quality mental health care.

Presence of policy frameworks that are not up to standard pose a great challenge to the delivery of care (Marangu E. et al, 2014).The White Paper (2013) recommended that clear guidelines be formulated to guide on triaging of psychiatric patients, and for those patients presenting with a history of attempted suicide or the intention to commit suicide. Moreover, insufficient subsidizing and immature strategy systems add to the test of conveying a wide populace based mental medicinal services. Lack of clear standard operating procedures (SOPs) guidelines, policies, and treatment protocols are greatly affecting quality service delivery during provision of emergency mental health care in the. Available information shows very few studies on use and adherence to clinical practice guidelines. There is little information on the use of clinical guidelines in mental health care (Barbui C. et al, 2014).

2.2.2: Process Factors

Based on the above literature, a number of processes factors have been revealed to greatly affect the process of providing care to psychiatric patients in the ED including the provider-client relationship, information provision, triage and staff motivation. However, there is insufficient evidence of the other elements affecting the quality of care in the psychiatric ED including the availability of standard operating procedures, early interventions, complications of treatments among others.

Process factors are all those activities of changing health inputs into improving the health status of those in need of mental health emergency care at mental hospitals. This involves the interaction process between the healthcare providers and the patients seeking care (Martin et al, 2013). People with mental health problems seeking emergency mental care evaluation, face one of the most complicated processes for treatment and management in any given healthcare systems across the world (Jeniffer et al, 2015). This may be mainly due to lack of adequate knowledge diagnosis of emergency mental health and related problems and increasing provider bias during service delivery which may compromise the quality of mental care. Patients who are perceived to be cooperative are more likely to receive accurate evaluation (P. Steven and Segal et al, 1995).

A study done in Australia revealed that clinicians were eager to learn more evidence-based methods that will help them to provide better mental health care (Manton, 2013). A therapeutic process can achieved when the care providers learn to create bonds with the users of mental health care as the initial step . (Buriola et al., 2016). Development of linkage between the family of the mental patient and the healthcare provider teams. It is considered important as it aims at constructing care based on trust and bonding (Bessa and Waidman, 2015). This will help them in the provision of appropriate information and thus help in initiating internalization and behavior change process among patients in the Emergency Department. There should be a sufficient and effective relationship between the psychiatric consultants, emergency caregivers, and the patient's main care providers (PCP) through communication.

The process of admitting psychiatric patients affects the perception of clients on the quality of care given by clinicians. They face difficult challenges when evaluating acutely ill psychiatric patients (Jeniffer et al, 2014). This relates to how they appropriately manage and further assess agitated patients and the entire process of treating involuntarily admitted patients. Early psychiatric interventions can help prevent the progression of such cases to critical ones. In addition, there are no known standard operating procedures agreed regarding the admission, management or discharge criteria for patients with psychiatric emergency problems. They are not deliberated as part of actual emergency services and are considered as problematic or nuisances by the care providers (Emergency Nurses Association, 2010). (American College of Physicians Emergency (ACEP) 2014) recommends the use of protocols when managing psychiatric patients. There should be evidence of the use of guidelines or referral protocols.

For many reasons, caregivers don't feel good in giving consideration to mental health patients who need immediate care. This brings about patients getting deficient care. This may incorporate deficient instructive planning, mind supplier wellbeing concerns, swarming of patients, the absence of trust in aptitudes and skill among caregivers, and absence of clear rules (Egan et al., 2012). This can also be attributed to lower remuneration strategies as well as poor working environments in which care is given. This greatly demotivates care providers, thus perceived low quality of care discharged to clients. Poor staff attitudes such as embracing a "no bother attitude' which tends to create perceived stigma towards a patients

leads to delays in the advancement of norms of look after treating psychiatric emergencies (Manton, 2013). Embracing positive attitude increases the ability of an agitated or aggressive patient to cooperate and calm down hence improving the effectiveness and efficiency of quality care. This is further complicated by lack of an obvious concurrence on what constitutes a psychiatric crisis or diagram how psychiatric evaluation ought to be directed during an emergency.

Triage has been a key component in managing psychiatric patients in the Emergency Department. Assignment of triage priorities is based on the presentation of risky symptoms of mental problems such as the risk of a physical problem, the risk of suicide, distress, the risk of leaving among others (Agency for Healthcare Quality and Research, 2011). Those patients expressing symptoms with riskier behaviors are assigned the higher triage ratings. Relying on triage assignment is important since it balances the utilization of available scarce resources thus minimizing the level of deterioration in the patient's condition while holding up to be attended to by a physician thus improving the quality of care provided. However, some other risk factors are difficult to measure. For instance, there are no suicide appraisal criteria that has been tried empirically for unwavering quality and legitimacy. Any faulty in the suicide assessment procedure may adversely affect the patient’s treatment and safety management procedures (Chang et al., 2011). Poor triaging priorities may lead to overcrowding of patients in the emergency department leading to longer lengths of stay in the hospitals thus affecting the quality of care. (American College of Psychiatric Emergency (ACEP), 2014) recommends use off treatment protocols to reduce patient waiting time when there is no psychiatrist available. Pulse report (2010) indicated the average ED waiting time in the US in 2009 was about 4 hours. This duration is contrary to the human right based approach, which requires that symptoms are recognized early and treated to reduce progression to emergency states. (Peter et al, 2016). In Mathari hospital waiting time is up to one hour (Service Delivery Charter, 2015)

2.2.3: Outcome related factors

Readmission is a common significant problem among mental health patients. It is more prevalent common in young people than in adults. The average rate of youth mental health disorder readmission is between 30% and 60% (James et al., 2010). 33% of youths will

probably be re-hospitalized within the initial three months to two years after the initial admission. High rates of medical non-adherence and poly-pharmacology is associated with readmission (Gearing et al., 2010). Also provision of satisfactory post-releases in health facilities diminishes the danger of mental health patient's readmission and absence of such administrations expands the danger of readmission. Auxiliary and geographic variables may likewise assume a critical part in expanding danger of readmission. This result was validated by a study done in Belgium, it revealed that two-thirds of patients are repeat patients (Goldstein et al., 2006).

The overall economic costs associated with management and treatments of mental disorders are very high. Many middle and low-income countries allot less than 2 percent of the health budget on mental health (WHO, 2013). Such costs are unbearable at the household level since they come to inform of reduced family earnings or use of out-of-pocket expenditure on health services thus cutting costs in savings and investment. According to a study done in the condition of Goa in India, it was uncovered that 15% of ladies who had a typical mental issue utilized over 10% of family pay on wellbeing related consumption (Bloom et al., 2011). Psychiatric disorders are related to high rates of unemployment and diminished execution rates while at work thus limiting the country's labor participation and general GDP (Unick et al., 2011). If these disorders are left unaddressed, there would be an increase in the amount of lost economic output. Therefore, the provision of high quality of psychiatric emergency care presents a leverage opportunity for preventing and controlling the economic losses which impoverish families and affect the economic prosperity of a nation.

The study has reviewed studies done within Kenya and across the globe that related to the quality of care. A literature review has shown that there lack sufficient studies and documentation on quality of psychiatric emergency care especially in Sub-Saharan Africa and in Kenya. Although the quality of psychiatric care, in general, is reported to be low, there is no consistent, conclusive and reliable documentation on perceived quality of psychiatric emergency care in Kenya and across the region. Most studies have relied on systematic reviews which are not well articulated to the context of care delivery; there is over-reliance on secondary documentation. In addition, little attention has been given to mental health care which has led to limited studies on this area of practice and service delivery. Greater emphasis and attention has been focused on other non-communicable and infectious diseases

despite mental health disorders accounting for the greater proportion of the burden of disease regionally and globally. The review also revealed that despite Donabedian model being cited as a reliable model for assessing the quality of health care, it has not been applied in reviewing the quality of mental health care and to a greater extent, emergency mental health care. Most studies have relied on single and narrow indicators of quality yet quality assessment needs to take into account all the dimensions of care: structures, processes and care outcomes. This makes the available documentation not to adequately reflect the actual status of quality of care. There is also scanty information on determinants of quality of psychiatric care in Kenya and across the region. Although systematic reviews and studies have documented factors key in delivering quality mental care, psychiatric emergency care requires a unique care model and is provided in the context different from the general care. Therefore, available body of evidence cannot be adequately generalized to emergency mental health care context and so they are the interactive factors which affect perceived quality of care.

Finally, available studies have over-relied on quality of care assessment from patients' perspective. This poses a question, how do the perceptions of health care providers affect the quality of care? This perspective is grossly missing in the available literature. Understanding quality of care from providers' perspective will provide a strategic opportunity for innovating and improving care quality provided to patients, as they are key assets in customer/patient satisfaction with the quality of care. Therefore, this research seeks to gauge care providers quality of care perceptions using the Donabedian model dimensions of structure, process and care outcomes. There was a marked improvement in care outcome from some of the studies but not all (Donabedian,1988).

2.3: Theoretical Framework of the Study

In this study, a model on quality of care was used to assess the quality of care for patients presenting with psychiatric emergencies. The Donabedian's Model has been applied as the theoretical basis for the study. The Donabedian model which comprises three dimensions; 'structure, process and outcomes', was developed by Donabedian in 1988 (Figure 2.1). These three-part methodology makes quality examining conceivable assuming structure (such as traits of human resources or material and organizational structure) affects procedures (what

is essentially done in providing and receiving care), which affects the outcome (e.g. well-being status).

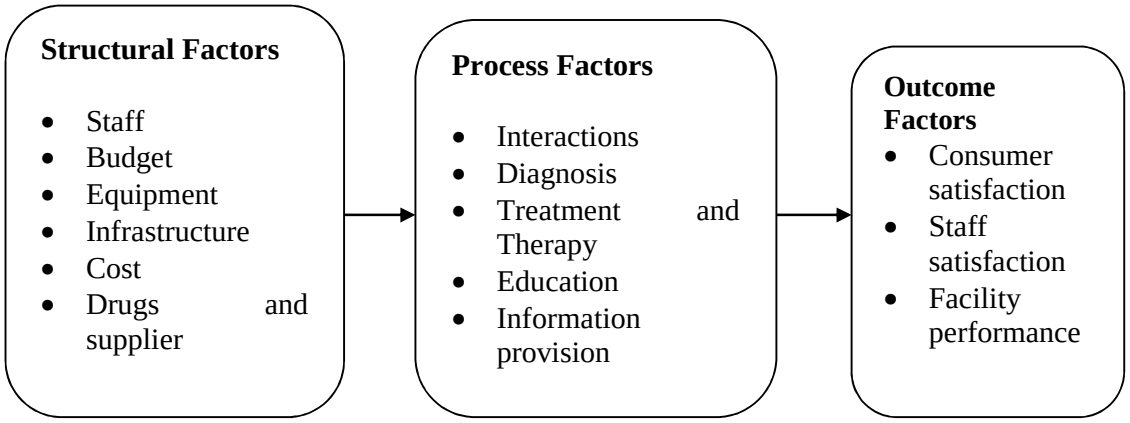

Figure 2.1: Theoretical Framework of the study

Source: Donabedian, 1988

The Donabedian's model was chosen because it has widely been used and allows conceptualization of the fundamental mechanisms that can lead to 'poor' or 'good' level of healthcare for psychiatric emergency patients. A care quality measure that includes all the three elements of the model under concern is more valid than when it includes only one of these extents. However, weaknesses of Donabedian's model comprise the challenge in defining whether some aspects are strictly part of the structure and/or outcomes or process, as overlay between them may occur. Application of the model in this study is further explained below:

Structure: Structure comprises the entire aspect that affects the setting in which care is conveyed. This comprises the equipment, human resources, and physical facility as well as organizational characteristics for example payment methods, staff training, and qualifications. These aspects regulate how patients and providers in a healthcare organization behave. Care for emergency mental health patients involves inherent structural differences. Emergency mental health care requires sufficient beds, seclusion rooms, and facilities to properly attend to, unstable or new patients. An adequate number of skilled staff are required to triage and monitor the patients. Emergency mental health patients require high perceptibility, for

example, observing changes in patient steadiness. This can cooperate with patient confidentiality, particularly if the patient is handled in the open and or in rooms not well separated from the rest. Emergency health care providers may emphasize more on steadiness, disposition than initial evaluation and patient management. Variations in these aspects of care may compromise the quality of care.

Process: Procedure denotes the transactions between providers and patients throughout the conveyance of healthcare. These commonly comprise patient education, treatment, diagnosis and preventive care but can be extended to contain actions taken by the clients or their families. The model highlights potential problems with comfort, observation, therapy, and diagnosis. Observation and monitoring of patients may be compromised due to the structural lack of proper triaging, patients' assessment and adequate staff to attend to all the cases. Quality of care may be compromised if the other patients and staff are subjected to a noisy and panicking environment or even lack of sufficient privacy in the occurrence of an emergency mental health. Lack of adequate staff that is well trained to handle emergency patients may also lead to delays or errors in diagnosis and/or therapy from a host of issues including delayed or omitted laboratory testing, other diagnostic testing, consultations, medications, and or even procedures.

2.4: Conceptual Framework

Conceptual framework illustrates the relationship of the dependent variables of the study (Perceived quality of emergency mental health care), the independent variables of the study (Facility adequacy, availability of medical equipment for handling mental health emergency, staff adequacy, and skills, emergency drugs and supplies). This conceptual framework was developed based on the theoretical framework, which forms the basis of this study (Figure 2.1)

Conceptual framework

Independent variables **Confounding Variables** **Dependent Variables**

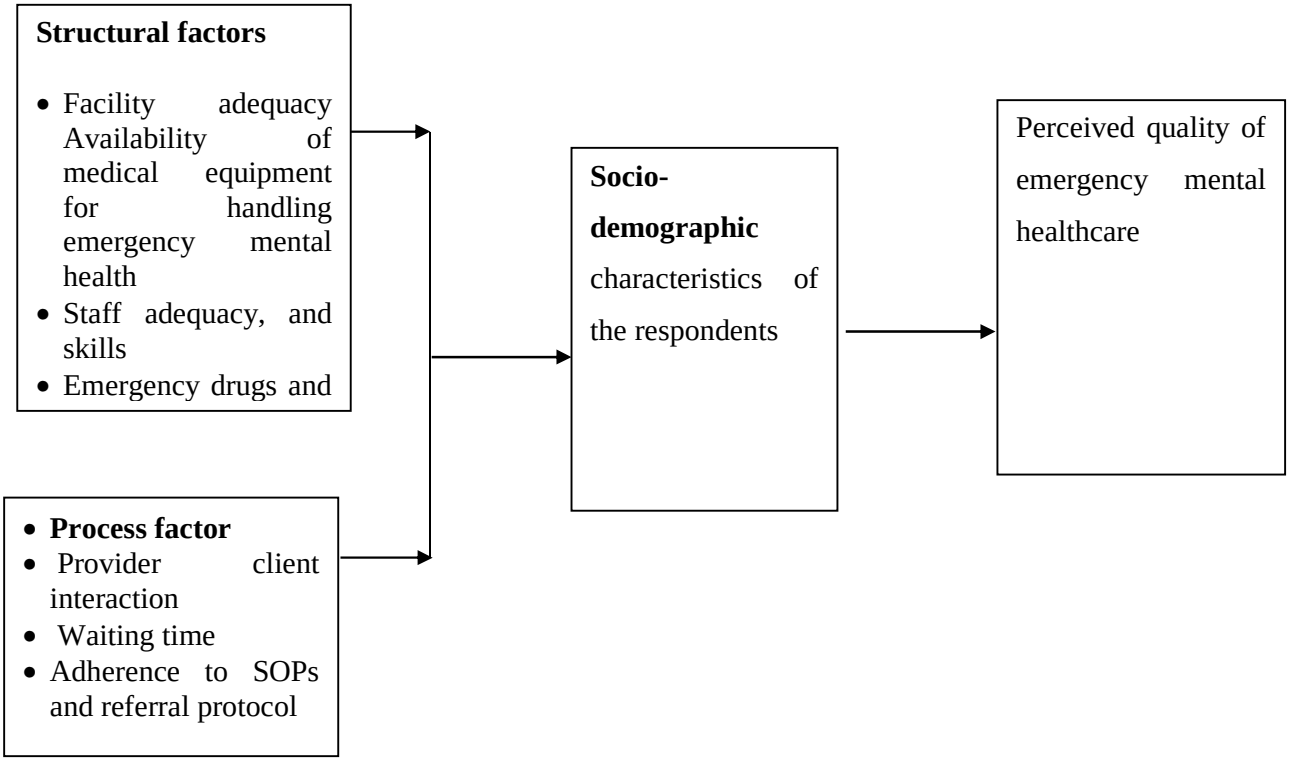

Figure 2.2 Conceptual framework

Source: Modified from Donebedian Model of Quality (1988)

CHAPTER THREE

METHODOLOGY

3.0: Study Area

The research was carried out in Mathari hospital purposively because it is a National Teaching and Referral Hospital, a government-run specialized facility providing mental health-related care and treatment to patients with mental disorders from all over Kenya. Being a mental health teaching hospital, it should offer the highest achievable quality of mental health care.

The hospital is located along Thika-Super Highway about 10 Km from Nairobi city center, in Nairobi county.

3.1: Study Design Population

The study population comprised of nurses and doctors working in Mathari hospital at the time the study was carried out. This study used a cross-sectional design. Qualitative and quantitative data approaches were used to collect analyze and present the results. The design was chosen to help establish relationship and associations between study variables hence enabling the study to establish` nurses and doctors perspective of quality of mental health emergency care in Mathari Hospital within the specified study duration.

3.2: Study variables

Independent variables

Structure factors

Facility adequacy

Availability of medical equipment for handling emergency mental health

Staff adequacy and skills

Emergency drugs and supplies

Process factors

Provider client interaction

Diagnosis

Adherence to SOPs

Referral protocol

Dependent variables

Provider client interaction

Waiting time

Adherence to SOPs and referral protocol

Confounding variables

Gender

Age

Highest level of education

Professional qualification

Duration working in Mathari hospital

3.3.: Inclusion Criteria

Qualified nurses on duty, psychiatrist registrars and psychiatrist consultants on duty at the time of the study.

3.4: Sample Size Determination

The sample size was determined using the following formula by Fisher *et al.* (1935) which assumes that the sample is randomly distributed within the population:

$$n=\frac{Z^2P(1-P)}{d^2}$$

Where:

n = the desired sample size if the sample size is greater than 10,000

Z= sample interval at 95% confidence limit = 1.96

p= proportion of health care workers, which is taken to be 50% since the proportion is not known, hence p=0.5

d= the margin of error at 95% confidence limit=0.05

Substituting the values in the formulae;

$n= 1.96^2 * 0.5 * 0.5 /0.05 = 384$

Sample size before adjustment= 384

Sample size after adjustment for a population less than 10,000

Since the population of nurses and doctors working in Mathari Hospital is approximately 265, the finite proportion correction factor was used to adjust for a population which is smaller than 10,000 as follows:

$$nf = \frac{n}{1+n/N}$$

Where;

nf = the desired sample size (when the population is less than 10,000)

n = the desired sample size (when the population is more than 10,000)

N= the estimate of the population size

Therefore, $nf = \frac{384}{1+384/256}$ $nf = \frac{385}{1-384/265} = 157.4$

Sample size after adjustment= 157 nurses and doctors

To accommodate for non-response, additional ten percent, which is 16 questionnaires of the estimated sample size was added which translated to a sample size of 173 respondents.

3.5: Sampling Procedure

A sample frame of nursing staff was obtained from the Nursing Service Manager (NSM), who is in charge of the nursing department.

To select the psychiatrist registrars and psychiatrist consultants, a serialized list of doctors currently working in Mathari, in each of the strata was compiled using personnel records obtained from the Human Resource (HR) office.

The study used a stratified sampling technique in selecting the study respondents to ensure study respondents are representative of the different cadres from the sample frame. In this sampling technique, three cadres working in the hospital were treated as strata; that is, Nurses, and doctors, totaling 265 respondents.

The compiled list will include staff identification details such as their respective departments for ease of tracing the respondents. Each of the serialized lists was used randomly to select respondents from each of the strata using a table of random numbers.

3.5.1: Obtaining 141 nurses

Sample size from each stratum was calculated as follows:

n_1 = number of respondents in stratum

n_2 = number of respondents

nf = sample size required

From a list of the total number of nurses, 221 (n_1),144 (nf) nurses were selected by dividing 221 nurses by the total number of population of the three cadres, 265 (n_2), then multiplying by 173 which is the desired sample size.

Sample size = n_1/n_2 x nf

Systematic random sampling was further use to select every *k*th. Therefore:

$K = n_1 / n_2$

$k = 221/144 = 1.5 \approx 2$

Every *k*th was selected again until the number of nurses required was attained.

3.5.2: Obtaining 5 Psychiatrist consultants

The total number of consultants which 8(*nf*), was divided by the total population of the three cadres, then multiplied by 173, which is the desired sample size to get 5(*n*). Systematic random sampling was further use to select every *k*th. Therefore:

$K = n_1 / n_2$

$K = 8/5 = 1.6 \approx 2$

3.5.3: Obtaining 24 Registrars

The total population of registrars which is 34(n_1) was divided by the total number of population of the three cadres, which is 265, then multiplied by 173 which is the desired sample size, to get 24(n_2). Systematic random sampling was further use to select every *k*th. Therefore:

$K = n_1 / n_2$

$K = 36/24 = 1.5 \approx 2$

The proportionate sampling was undertaken in the selection of 141 nurses, 5 psychiatrists and 24 registrars. This resulted to a total of 173 that were recruited in the study (Table 3.2).

Table 3.1: Sample size allocation in strata

	Distribution of respondents.	**Calculated sample size**
A.	Number of Nurses = 221 221/265 x 100=83.4% 83.4/100 x 173 = 144.2	144
B.	Number of Psychiatrist Consultants = 8 8/265 x 100 = 3.0% 3.02/100 x 173 = 5.2	5
C	Number or Psychiatrist Registrars = 36 36/265 x 100 = 13.6% 13.6/100 x 173 = 23.5	24

Key informants selection for the study was purposive. Key informants were selected based on the assumption that due to their administrative position, they have experience and enough knowledge of basic and emergency mental health care for patients. The key informants included the facility in-charge, outpatient departmental head, male in-patient departmental head, female inpatient departmental head and departmental head of maximum security unit.

Table 3.2 Distribution of respondents in the Sample Size

N^{o}	**Strata (Cadre)**	**Total population**	**Adjusted Sample Size/Percentage**	**Actual Sample Size**
A.	Nurses	221	144 (83%)	131
B.	Psychiatrists	8	5 (3%)	5
C.	Registrars	36	24 (14%)	21
	Total	265	173 (100%)	157

3.5.4. Consenting Procedure

Eligible respondents were informed about the study, and consent sought. After consent explanation, those who gave consent were requested to sign the consent form after which a self-administered questionnaire interview was done.

3.6: Research Instruments

The data collection instruments used were researcher-developed self-administered questionnaires (appendix 5), and a key informant interview guide. Self-administered semi-structured questionnaires were used to gather information on a demographic characteristic of the respondents, structure factors, and process factors. (Appendix 5). Respondents spent about 30 minutes each to respond to the questionnaire. Key informant guides (Appendix 6) was used for interviews. Key informant interview guide containing five items asking similar information, comprised probes on perceptions of psychiatric care quality and factors affecting the quality of care. These included the structural, process and care outcome factors identified using the. The key informant interview guide (Appendix 7) was used to obtain information on the same areas from key persons such as NSM and departmental charges. Each interview

lasted between 20-30 minutes. Both tools were developed by the researcher. The researcher used other comparable studies to guide and inform the development of the research tools.

3.7 Pre-testing the Questionnaire

Pre-testing of study instruments for validity and reliability was done at the Emergency Department in Kenyatta National Hospital (KNH) in Nairobi County because of its proximity to Mathari hospital. It is a public referral and teaching hospital where nurse and doctors attend to emergency mental health patients amongst other cases. Being a new instrument, the feedback obtained was used to amend and ensure the validity and reliability of the tools to ensure it could collect the information required.

3.8: Data Collection, Management And Analysis

3.8.1: Data Collection Method

Two research assistants were trained and orientated to the requirements of the research. Eligible respondents who were willing to participate signed an informed consent form. (Appendix 3) Data were collected using self-administered questionnaires comprising four sections with a total of thirty-eight items. Key informant face to face interviews was done. Interviewer's questions and the respondent's answers were recorded on a voice recorder.

3.8.2. Data Collection procedures

Recruitment Process

Recruitment of respondents was done by nurses, psychiatrists, and psychiatrist registrars working in the hospital, and met the inclusion criteria. Permission was being sought from the facility management board (after getting ethical review approval) to conduct the study. After obtaining management approval, a list of all the health care professionals was obtained from the human resource registry, was serialized and used to randomly sample respondents for the study. Each recruited respondent was approached individually and informed about his/her recruitment to participate in the study

Key informants recruited purposively based on the assumption that being in charge of the departments they head, they have experience and knowledge in the study area. Five interviews were done, the NSM and departmental charges from male, female, outpatient and maximum security unit were targeted.

Selected key informants were approached individually and informed about the study, after which a schedule list of interviewees was prepared to indicate the time and venue of the interview.

3.8.3. Interview Procedure/ Data collection

Data collection (interviews) was done in a manner that respects respondents privacy by ensuring venues of interviews were neutral such as unoccupied rooms and offices and also ensuring that the respondent felt comfortable during data collection. Their confidentiality was assured. They were reminded before the interview that their contribution was voluntary and they have had an option to pull out at any point during data collection. Each questionnaire interview lasted approximately between 15-20 minutes.

For the key informant interviews, participants who gave informed consent were interviewed face to face using a pre-tested KI guide (Appendix 6) on a voice recorder to ensure optimal archiving and retrieval of data. The interview schedule list was prepared and used to guide the interviews to minimize inconveniences to the participants. Permission to use the recorder was requested from the participant in whom confidentiality of their information was assured.

To make certain protection and privacy of the participant's interview responses and identity, participants were made aware that all recordings and data will be placed in a locker in an individual designated cabinet, data stored in a password protected computer and the tapes destroyed immediately after the research is concluded. They were informed the tapes will only be listened to by the supervisor and researcher and will be accessible to the partaker if they do feel to listen to their comments.

Each interview session lasted approximated to last for 20-30 minutes. After each session, the interviewee was thanked for their time.

3.9: Data Management Analysis and Presentation

Completeness of questionnaires was checked after the interview, and clarification sought from the respondents immediately. Quantitative data were entered into SPSS spreadsheet and analyzed to capture the specific objectives of the study. Quantitative data analysis was done using both descriptive and inferential statistics. The descriptive statistics were presented using frequency tables and graphs while inferential statistics were presented using a chi-square. Qualitative data were grouped into themes and sub-themes and analyzed. SPSS version 22was used to enterer coded data, cleaned and analyzed based on the study objectives'

Qualitative data were thematically analyzed manually based on the study objectives. Data collected from key informant interviews were coded using sub-themes developed established on the research objectives.

3.10: Ethical Considerations

Ethical approval was sought from the UON/KNH research and the ethical committee for clearance and approval. Institutional authorization was obtained from the medical superintendent of Mathari National Teaching and Referral hospital before data collection. Questionnaires were administered after consent was sought. Participation in the study was voluntary, and respondents had the right to withdraw at any stage. Anonymity was observed. The study was assessing determinants of perceived quality of psychiatric emergency care in Mathari National Teaching and Referral Hospital which is public health facility offering mental health services. It did not cover other public health facilities, FBOs, private and NGO facilities offering psychiatric emergency care. The researcher had no control over responses.

Informed consent was sought from all the recruited respondents. A consent form sheet (Appendix 3) which contained comprehensive details about the study including purpose, benefits, risks, assurance of confidentiality and participant's rights was used to obtain informed consent. Participation was voluntary and right of the participant to withdraw at any stage of the study was held. To make certain protection and privacy of the partaker's interview responses and identity (confidentiality), partakers were made aware that all data and the recordings would be placed in an individual designated cabinet (safe), data stored in a

password protected computer and the tapes destroyed after the completion of the research. Only the principal investigator will have access to the protected data, materials and records. The tapes will only listen to by the supervisor and researcher but will be accessible to the partaker if they would like to listen to their comments. In addition, no names will be used to identify the participants in the tools and final reports hence ensuring anonymity of responses.

3.11: Dissemination Plan

The study findings has been presented at the UoN School of Nursing during the thesis defense. A copy of the report will be furnished to the KNH/UoN Ethics Review Committee. The findings of the research has been published in an internationally recognized Nursing research journal hence increasing access and use to inform relevant policies, interventions, and activities. The results have been shared and disseminated to the hospital managers to provide the value of the new knowledge by informing the targeted quality of mental health emergeency care improvement initiatives in the facility.

3.12: Assumptions of the Study

The study was be based on the assumption that:

The respondents will have a positive approach towards this study which will motivate them to provide maximum support and cooperation;

The data collection instruments were adequately valid and reliable to be able to elicit honest and factual/unbiased responses from study respondents and

The study findings will be used by the government, insurance providers and other stakeholders to inform appropriate policy and programmatic interventions

CHAPTER FOUR

RESULTS AND DISCUSSIONS OF FINDINGS

4.0 Introduction

This chapter deals with the findings of the study. The findings are presented and interpreted based on the objectives of the study. A total of 159 health care professionals consisting of nurses and psychiatrists working in the Mathari Hospital were consented to participate in the study. The results are presented in sections that cover: socio-demographic characteristics of the health care professionals; structural characteristics influencing emergency mental health care; process-related factors in the delivery of emergency mental health care; care-outcome related factors of psychiatric emergency care and perceived quality of emergency care. The results are presented in tables and graphs form.

4.1 Socio-demographic attributes of the health care professionals

Table 4.1 shows the distribution of socio-demographic characteristics among respondents according to professional qualifications. Most (83.0%) of the participants were nurses. The majority (78.6%) of the respondents were females and most of the females were nurses (83.3%) compared to males (16.7%). The findings also show that the highest percentages (39.6%) were within the age group of 40-49 years followed by 50-59 years (30.2%). Similarly, the highest percentage of nurse professionals was in the age group of 40 to 49 years. The educational level of the respondents was as follows: 2.52% with a certificate, 28.3% with a diploma, 42.1% with a higher diploma, 23.3 with the degree and 3.8% with masters. All of the registrars were bachelor degree holders. However, half of the nurses were with the higher diploma (50.0%) followed by diploma (33.3%) while with masters were only (1.5%). Respondents were asked for how long they worked in the hospital and the highest percentage (22.0%) worked for over 15 years followed by 21.4% who worked for 6-10 years.

Table 4.1: Socio-demographic attributes of the health care professionals

Variable	Profession			Total, n(%)
	Nurse (132), n(%)	Registrar (19), n(%)	Others (9), n(%)	
Gender				
Male	22(16.7%)	10(52.6%)	2(25.0%)	34(21.4%)
Female	110(83.3%)	9(47.4%)	6(75.0%)	125(78.6%)
Age				
20-29 years	11(8.3%)	0(0.0%)	1(12.5%)	12(7.5%)
30-39 years	19(14.4%)	13(68.4%)	4(50.0%)	36(22.6%)
40-49 Years	54(40.9%)	6(31.6%)	3(37.5%)	63(39.6%)
50-59 years	48(36.4%)	0(0.0%)	0(0.0%)	48 (30.2%)
Highest level of education				
Certificate	4(3.0%)	0(0.0%)	0(0.0%)	4(2.5%)
Diploma	44(33.3%)	0(0.0%)	1(12.5%)	45(28.3%)
Higher diploma	66(50.0%)	0(0.0%)	1(12.5%)	67(42.1%)
Degree	16(12.1%)	19(100%)	2(25.0%)	37(23.3%)
Masters	2(1.5%)	0(0.0%)	5(50.0%)	7(3.8%)
Experience in the hospital				
Less than 1 year	10(7.6%)	0(0.0%)	1(12.5%)	11(6.9%)
1-3 years	10(7.6%)	17(89.5%)	0(0.0%)	27(17.0%)
4-5 years	18(13.6%)	2(10.5%)	4(50.0%)	24(15.1%)
6-10 years	32(24.2%)	0(0.0%)	2(25.0%)	34(21.4%)
10-15 years	27(20.5%)	0(0.0%)	1(12.5%)	28(17.6%)
Over 15 years	35(26.5%)	0(0.0%)	0(0.0%)	35(22.0%)

4.2: Perceived quality of emergency mental healthcare among nurses and doctors at Mathari hospital

4.2.1 Descriptive analysis

The perceived quality of emergency mental health care was assessed from the perspectives of nurses and doctors as shown in Table 4.2. Generally, most of the respondents rated the quality of emergency mental health care as fair. Majority of the respondents described that there was fair adequacy of facilities (61.0%) and medical equipment (55.3%) required to support the provision of psychiatric emergency care. The highest percent (44.7%) also rated there was the fair availability of drugs and supplies followed by those who indicated good availability drugs and supplies (33.3%). The highest number of respondents rated the staff skills (42.1%) and respect of patients (40.4%) as well followed by fair (28.3%) and (37.1%) respectively. Similarly, the regular monitoring of secluded psychiatric patients was reported as fair (40.3%) and good (36.5%). However, the highest percentage (39.6%) indicated poor budget allocated by the hospital management to support the provision of emergency mental health care.

The respondents rated the documentation of emergency mental health cases as good (36.5%), very good (28.3%) and fair (27.0%). The highest percentage (43.4%) indicated that hospital management was fairly committed to improving the quality of emergency mental health care. About one third (32.7%) reported that staff motivation was poorly followed by (27.7%) and (29.6%) who indicated very poor and fair respectively.

Table 4.2: Perceived quality of emergency mental healthcare among healthcare providers

Aspect of Care	Very Poor, n(%)	Poor, n(%)	Fair, n(%)	Good, n(%)	Very Good, n(%)
There are adequate facilities required to support provision of psychiatric emergency care	14(8.8)	20(12.6)	97(61.0)	25(15.7)	3(1.9)
There are adequate medical equipment required providing quality psychiatric emergency care?	10(6.3)	31(19.5)	88(55.3)	27(17.0)	3(1.9)
Drugs and supplies required in providing emergency psychiatric services are readily available	3(1.9)	24(15.1)	71(44.7)	53(33.3)	8(5.0)
There are skilled staff required to provide psychiatric emergency care	3(1.9)	28(17.6)	45(28.3)	67(42.1)	16(10.1)
Psychiatric emergency patients are treated with respect	4(2.5)	14(8.8)	59(37.1%)	64(40.43)	18(11.3)
There is regular monitoring of secluded psychiatric patients as required	2(1.3)	9(5.7)	64(40.3)	58(36.5)	26(16.4)
Adequate funds (budget) are allocated by the hospital management to support provision of psychiatric emergency care	30(18.9)	63(39.6)	50(31.4)	12(7.5)	4(2.5)
There is effective patient triaging in the outpatient department	9(5.7)	16(10.1)	59(37.1)	59(37.1)	16(10.1)
Psychiatric emergency patients are provided with adequate treatment as expected	4(2.5)	10(6.3)	72(45.3)	48(30.2)	25(15.7)
There is good provider-patient interactions for emergency psychiatric care	5(5.1)	7(4.4)	66(41.5)	68(42.8)	13(8.2)
Psychiatric emergency care provided in this hospital is adequately effective	4(2.5)	10(6.3)	81(50.9)	53(33.3)	11(6.9)
I am satisfied with quality of psychiatric emergency care provided by this hospital	6(3.8)	29(18.2)	82(51.6)	32(20.1)	10(6.3)
There is proper documentation of psychiatric	4(2.5)	9(5.7)	43(27.0)	58(36.5)	45(28.3)

emergency cases					
Hospital management is commitment in improving quality of psychiatric emergency care	10(6.3)	28(17.6)	69(43.4)	43(27.0)	9(5.7)
The hospital has been organizing sufficient staff training including refreshers on provision of psychiatric emergency care	19(11.9)	52(32.7)	43(27.0)	36(22.6)	9(5.7)
Staff are well motivated to provide quality psychiatric emergency care	44(27.7)	52(32.7)	47(29.6)	9(5.7)	7(4.4)

4.2.2: Overall score of perceived quality of emergency mental healthcare

The overall score of perceived quality of emergency care of psychiatric care was determined by using a score of responses. Sixteen (16) variables presented in Table 4.2 were considered together and scores were structured in Appendix10. The maximum attainable total score was 80 and the minimum was 16. The mean was generated (50.6) and those who scored mean and above (50.6) were classified as having perceived good quality and those who scored below the mean (50.6) were classified as the perceived poor quality of psychiatric emergency care.

As indicated in Figure 4.1, almost half of the respondents (50.9%) had perceived the good quality of psychiatric care while the remaining (49.1%) had perceived the poor quality of psychiatric care.

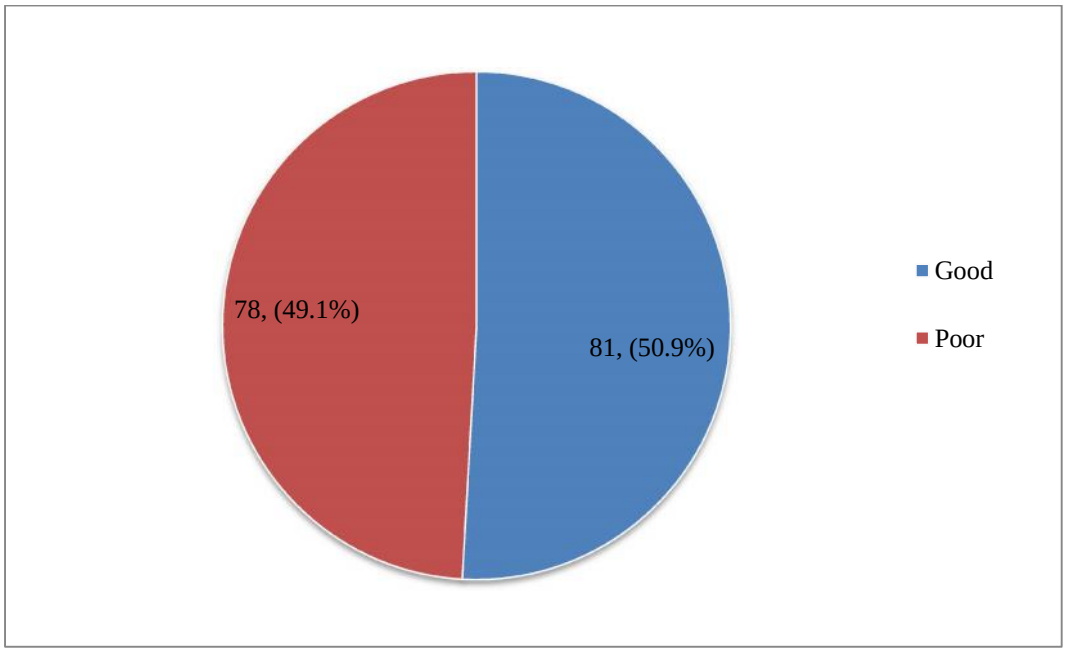

Figure 4.1: Overall score of perceived quality of emergency mental health care

4.2.3 Socio-demographic characteristics and perceived quality of emergency mental healthcare

Bivariate analysis of the association between socio-demographic characteristics of respondents and perceived quality of emergency mental health care is summarized in Table 4.3. The proportion of perceived good quality emergency mental health care was more among females (54.4%) compared to males (38.2%). However, this was not statistically significant [OR=1.93; 95%CI=0.89-4.19; P=0.098]. There was significantly low proportion of perceived good quality emergency mental health care among respondents aged 30 to 39 years (30.6%) [OR=0.09; 95%CI=0.02-0.47; P=0.004] and 40 to 49 years (44.4%) [OR=0.16; 95%CI=0.03-0.79; P=0.025] than those aged 20 to 29 years (83.3%).

Table 4.3: Association between socio-demographic characteristics and perceived quality of emergency mental healthcare

Variables	Perceived good quality		Perceived poor quality		OR	95%CI		χ^2 test
	n	%	n	%		Lower	Upper	P value
Gender								
Male	13	38.2%	21	61.8%	Ref			
Female	68	54.4%	57	45.6%	1.93	0.89	4.19	0.098
Age								
20-29 years	10	83.3%	2	16.7%	Ref			
30-39 years	11	30.6%	25	69.4%	0.09	0.02	0.47	0.004
40-49 Years	28	44.4%	35	55.6%	0.16	0.03	0.79	0.025
50-59 years	32	66.7%	16	33.3%	0.40	0.08	2.05	0.271
Highest level of education								
Certificate	3	75.0%	1	25.0%	3.00	0.19	47.96	0.437
Diploma	25	55.6%	20	44.4%	1.25	0.23	6.88	0.798
Higher diploma	33	49.3%	34	50.7%	0.97	0.18	5.16	0.972
Degree	17	45.9%	20	54.1%	0.85	0.15	4.78	0.854
Masters	3	50.0%	3	50.0%	Ref			
Professional qualification								
Nurse	69	52.3%	63	47.7%	Ref			
Registrar	11	57.9%	8	42.1%	1.26	0.48	3.32	0.647
Others	1	12.5%	7	87.5%	0.13	0.02	1.09	0.060
Experience in the hospital								
Less than 1 year	8	72.7%	3	27.3%	1.78	0.40	7.88	0.449
1-3 years	13	48.1%	14	51.9%	0.62	0.23	1.71	0.354
4-5 years	11	45.8%	13	54.2%	0.56	0.20	1.61	0.285
6-10 years	18	52.9%	16	47.1%	0.75	0.29	1.95	0.555
10-15 years	10	35.7%	18	64.3%	0.37	0.13	1.03	0.058
Over 15 years	21	60.0%	14	40.0%	Ref			

OR= Odds Ratio, CI= Confidence Interval

4.3 Components of structure that influence perceived quality of emergency mental healthcare

4.3.1 Descriptive analysis

The descriptive analysis of components of the structure that influence the perceived quality of emergency mental health care is shown in Table 4.4. The majority (64.8%) of the respondents indicated that the budget allocated for emergency mental health care services was not sufficient. Similarly, most (81.1%) reported that the existing seclusion rooms in the wards were not adequate for emergency mental health care. The large percentage (93.1%) of the respondents indicated that the existing rooms in the outpatient department were also not adequate for handling emergency mental health care.

Most of the respondents (81.1%), (83.6%) and (83.0%) reported that there were inadequate medical equipment, inadequate beds, and inadequate staff to manage emergency mental health care respectively. However, the majority (61.6%) indicated that the available staffs were adequately skilled in providing emergency mental health care services.

The majority (76.1%) of the respondents claimed that they have never had any training in the last six months. About half (53.5%) indicated that there was no a standard operating procedure for emergency mental health care. Most (81.8%) reported the safety measures within the hospital were not adequate to ensure safety for both staff and others. However, the majority (64.8%) indicated that there was a referral protocol for referring patients with emergency mental health.

Of the total, 58.5% felt that the cost of emergency mental health services was unaffordable for patients. The majority (70.4%) also indicated that there was a lack of consistent essential drugs and supplies required in managing emergency mental health cases. Moreover, most of the respondents (76.1%) were feeling not motivated to attend to emergency mental health.

Regarding hospital commitment to support the provision of quality emergency mental health care, about half (48.4%) indicated no support while (45.9%) reported otherwise. More than half (55.3%) indicated that there was effective communication within and across departments to facilitate proper management of emergency mental health.

Table 4.4: Components of structure that influence perceived quality of emergency mental healthcare

Variable	Yes, n(%)	No, n(%)	I don't Know, n(%)
Whether the budget allocated for psychiatric emergency services is sufficient	3(1.9)	103(64.8)	53(33.3)
The existing seclusion rooms in the wards are adequate for psychiatric emergency care	29(18.2)	129(81.1)	1(0.6)
The existing rooms in the outpatient department are adequate for handling psychiatric emergency care	11(6.9)	148(93.1)	0(0.0)
There are adequate medical equipment for managing emergency patients	25(15.7)	129(81.1)	5(3.1)
There are adequate beds designed for care of psychiatric emergency patients	24(15.1)	133(83.6)	2(1.3)
There are adequate staff to manage psychiatric emergency patients	22(13.8)	132(83.0)	5(3.1)
The available staff are adequately skilled in providing emergency psychiatric services	98(61.6)	59(37.1)	2(1.3)
In the last six months, I have you had any training (including refresher course) on emergency psychiatric care	36(22.6)	121(76.1)	2(1.3)
There is a standard operating procedure (SOPs) for psychiatric emergency care	63(39.6)	85(53.5)	11(6.9)
Safety measures within the hospital are adequate to ensure safety of both staff and others	24(15.1)	130(81.8)	5(3.1)
There is a referral protocol (guidelines) for referring psychiatric emergency patients	103(64.8)	51(32.1)	5(3.1)
The cost of psychiatric emergency services is affordable to patients	54(34.0)	93(58.5)	12(7.5)
Essential drugs and supplies required in managing psychiatric emergency cases are consistently available	45(28.3)	112(70.4)	2(1.3)
Whether feeling adequately motivated to attend to psychiatric emergences	38(23.9)	121(76.1)	0(0.0)
The hospital management is committed to support provision of quality psychiatric emergencies	73(45.9)	77(48.4)	9(5.7)
There is effective communication within and across departments to facilitate proper management of psychiatric emergencies	88(55.3)	67(42.1)	4(2.5)

4.3.2 Overall score for components of structure that influence perceived quality of emergency mental healthcare

The overall score of structural characteristics of emergency mental health care was determined by using a score of responses. Sixteen (16) variables presented in Table 4.4 above were considered together and scores are structured in Appendix 11. The maximum attainable total score was 16 and minimum score was 0. A percentage score was generated and classified as very poor (<25%), poor (25-49%), moderate (50 – 74%), good (≥75%).

As indicated in Figure 4.2, the highest percentage (47.2%) of the respondents reported that the structure for emergency mental health care was low. This was followed by those who indicated that the structural characteristics were very poor (36.5%). There were only (4.4%) who indicated good structural characteristics for psychiatric emergency care.

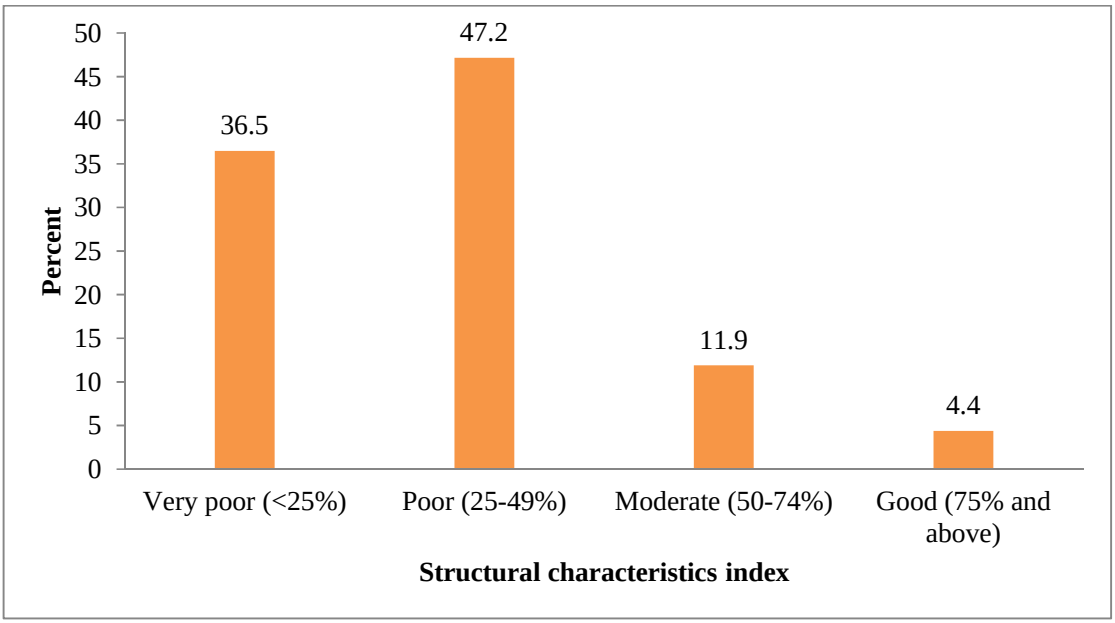

Figure 4.2: Overall score of structural components of emergency mental health care

4.3.3 Bivariate analysis of components of structure that influence perceived quality of emergency mental healthcare

Table 4.5 shows the bivariate analysis for components of structure that influence perceived quality of emergency mental healthcare. Respondents who indicated that there is a protocol

(guidelines) for referring emergency mental health patients were significantly more to have good perceived quality than those who indicated otherwise (p=0.002). Similarly, those who reported hospital management commitment and effective communication had significantly good perceived quality compared to those who reported otherwise (p=0.039) and (p= 0.000) respectively.

Perceived good quality of emergency mental healthcare was significantly higher among respondents who scored high and moderate on the overall components of structure compared to those of with very low (p=0.027).

Table 4.5: Bivariate analysis: Components of structure that influence perceived quality of emergency mental healthcare

Variables	Perceived good quality		Perceived poor quality		χ^2 value	df	P value
	n	%	n	%			
Whether the budget allocated for emergency mental health services is sufficient							
Yes	1	33.3%	2	66.7%			
No	54	52.4%	49	47.6%	0.54	2	0.764
Don't know	26	49.1%	27	50.9%			
The existing seclusion rooms in the wards are adequate for psychiatric emergency care							
Yes	16	55.2%	13	44.8%			
No	65	50.4%	64	49.6%	1.26	2	0.532
Don't know	0	0.0%	1	100.0%			
The existing rooms in the outpatient department are adequate for handling psychiatric emergency care							
Yes	6	54.5%	5	45.5%	0.06	1	0.804
No	75	50.7%	73	49.3%			
There are adequate medical equipment for managing emergency patients							
Yes	14	56.0%	11	44.0%			
No	63	48.8%	66	51.2%	2.17	2	0.337
Don't know	4	80.0%	1	20.0%			
There are adequate beds designed for care of psychiatric emergency patients							
Yes	16	66.7%	8	33.3%			

No	63	47.4%	70	52.6%	4.98	2	0.083
Don't know	2	100.0%	0	0.0%			
There are adequate staff to manage psychiatric emergency patients							
Yes	12	54.5%	10	45.5%			
No	64	48.5%	68	51.5%	5.25	2	0.073
Don't know	5	100.0%	0	0.0%			
The available staff are adequately skilled in providing emergency psychiatric services							
Yes	57	58.2%	41	41.8%			
No	23	39.0%	36	61.0%	5.42	2	0.066
Don't know	1	50.0%	1	50.0%			
In the last six months, I have you had any training (including refresher course) on emergency psychiatric care							
Yes	15	41.7%	21	58.3%			
No	65	53.7%	56	46.3%	1.61	2	0.446
Don't know	1	50.0%	1	50.0%			
There is a standard operating procedure (SOPs) for psychiatric emergency care							
Yes	35	55.6%	28	44.4%			
No	43	50.6%	42	49.4%	3.01	2	0.222
Don't know	3	27.3%	8	72.7%			
Safety measures within the hospital are adequate to ensure safety of both staff and others							
Yes	14	58.3%	10	41.7%			
No	65	50.0%	65	50.0%	0.81	2	0.667
Don't know	2	40.0%	3	60.0%			
There is a referral protocol (guidelines) for referring psychiatric emergency patients							
Yes	63	61.2%	40	38.8%			
No	16	31.4%	35	68.6%	12.36	2	0.002
Don't know	2	40.0%	3	60.0%			
The cost of psychiatric emergency services is affordable to patients							
Yes	29	53.7%	25	46.3%			
No	47	50.5%	46	49.5%	0.58	2	0.747
Don't know	5	41.7%	7	58.3%			
Essential drugs and supplies required in managing psychiatric emergency cases are consistently available							
Yes	27	60.0%	18	40.0%			
No	54	48.2%	58	51.8%	3.89	2	0.143

Don't know	0	0.0%	2	100.0%			
Whether feeling adequately motivated to attend to psychiatric emergences							
Yes	20	52.6%	18	47.4%	0.06	1	0.811
No	61	50.4%	60	49.6%			
The hospital management is committed to support provision of quality psychiatric emergencies							
Yes	45	61.6%	28	38.4%			
No	33	42.9%	44	57.1%	6.48	2	0.039
Don't know	3	33.3%	6	66.7%			
There is effective communication within and across departments to facilitate proper management of psychiatric emergencies							
Yes	57	64.8%	31	35.2%			
No	23	34.3%	44	65.7%	15.21	2	0.000
Don't know	1	25.0%	3	75.0%			
Overall score of structural components of psychiatric emergency care							
Very low (<25%)	22	37.9%	36	62.1%			
Low (25-49%)	40	53.3%	35	46.7%	9.21	3	0.027
Moderate (50-74%)	14	73.7%	5	26.3%			
High (75% and above)	5	71.4%	2	28.6%			

4.4: Process factors that influence perceived quality of emergency mental healthcare

4.4.1 Descriptive analysis

The factors related to process in the delivery of mental healthcare are summarized in Table 4.6. Majority (67.3%) claimed that there was effective triaging of patient in the outpatient department. Ninety five (59.7%) of the respondents were adhering to standard operating procedure and 55.3% said they were adhering to referral protocol when providing psychiatric emergency care.

Almost half of the respondents (50.9%) indicated the provider-patient interaction was satisfactory. Nevertheless, most (64.8%) reported inadequate privacy. Even though, 58.5% of the respondents indicated that the rights of patients are upheld, considerable percentage (40.3%) reported otherwise. Most (81.1) believe that psychiatric emergency patients were handled with respect by the staffs. About half (53.5%) indicated informed consent is sought during treatment whereas 44.7% reported they treat without consent.

The highest percentage (57.2%) pointed out that the waiting time for emergency psychiatric patients was in line with the service delivery charter. Majority (62.9%) did not feel sufficient provider safety measures when attending to emergency mental health patients. Similarly, most (74.8%) indicated that they do not feel safe when attending to a patient presenting with emergency mental health. Most, (86.2%) reported there was monitoring of emergency mental health patients who are secluded. More than half (57.2%) indicated inadequate treatment of emergency mental ghealth patients. However, most (86.2%) of the respondents were documenting the occurrences and 75.5% indicated the documentation was done consistently.

Table 4.6: Descriptive analysis of process factors that influence perceived quality of emergency mental healthcare

Variable	Yes, n(%)	No, n(%)	I don't Know,n(%)
There is an effective triaging of patient in the outpatient department	107(67.3)	47(29.6)	5(3.1)
The SOPs (if available) properly are adhered to when providing psychiatric emergency care	54(34.0)	95(59.7)	10(6.3)
The referral protocol (if available) is adhered to when referring emergency psychiatric patients	88(55.3)	64(40.3)	7(4.4)
The provider-patient interaction with patients presenting with psychiatric emergencies is satisfactory	81(50.9)	74(46.5)	4(2.5)
The patients are presenting with psychiatric emergency cases provided with privacy adequately	53(33.3)	103(64.8)	3(1.9)
The rights of patients are presenting with psychiatric emergency is upheld	93(58.5)	64(40.3)	2(1.3)
Staffs handle psychiatric emergency patients with respect	129(81.1)	28(17.6)	2(1.3)
During treatment of psychiatric emergency patients, is informed consent sought	85(53.5)	71(44.7)	3(1.9)
The waiting time for emergency psychiatric patients is in line with the service delivery charter	55(34.6)	91(57.2)	13(8.2)
There are sufficient provider safety measures when attending to psychiatric emergency patients	56(35.2)	100(62.9)	3(1.9)
Whether feeling safe when attending to a patient presenting with psychiatric emergency	40(25.2)	119(74.8)	0(0.0)
There is monitoring of psychiatric emergency patients who are secluded	137(86.2)	19(11.90	3(1.9)
There is regular monitoring	103(64.8)	53(33.3)	3(1.9)
There is adequate treatment of emergency psychiatric patients	66(41.5)	91(57.2)	2(1.3)
The psychiatric emergency occurrences are documented	137(86.2)	18(11.3)	4(2.5)
Whether the documentation of occurrences is done consistently	120(75.5)	34(21.4)	5(3.1)
In the occurrence of a psychiatric emergency, is the patients deescalated before restraint?	72(45.3)	80(50.3)	7(4.4)

4.4.2: Overall score of process factors that influence perceived quality of emergency mental healthcare

The overall score of process-related factors in the delivery of emergency mental health care was determined by using a score of responses. Seventeen (17) variables presented in Table 4.3 were considered together and scores are structured in Appendix 12. The maximum attainable total score was 17 and minimum score was 0. A percentage score was generated and classified as very poor (<25%), poor (25-49%), moderate (50 – 74%), good (≥75%).

Figure 4.3 shows overall score of process-related factors in the delivery of psychiatric care. The highest percentage (37.7%) of the respondents reported that the process for psychiatric emergency care was moderate/average. However, considerable percentage (31.4%) and (18.2%) scored the process system as low and very low respectively.

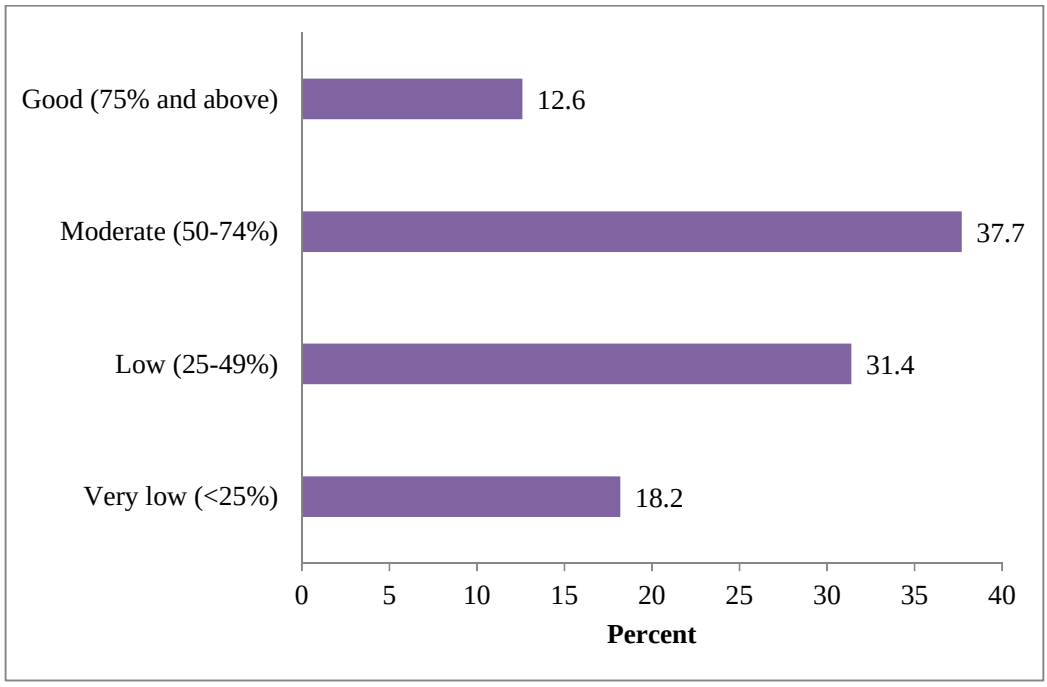

Figure 4.2: Overall score of process-related factors in the delivery of emergency mental health care

4.4.3 Method mainly used to manage the patients, if there is no de-escalation

As indicated in Figure 4.3, the main mentioned methods used to manage the patients, if there is no de-escalation were chemical restraint (54.1%) and physical restraint (44.6%).

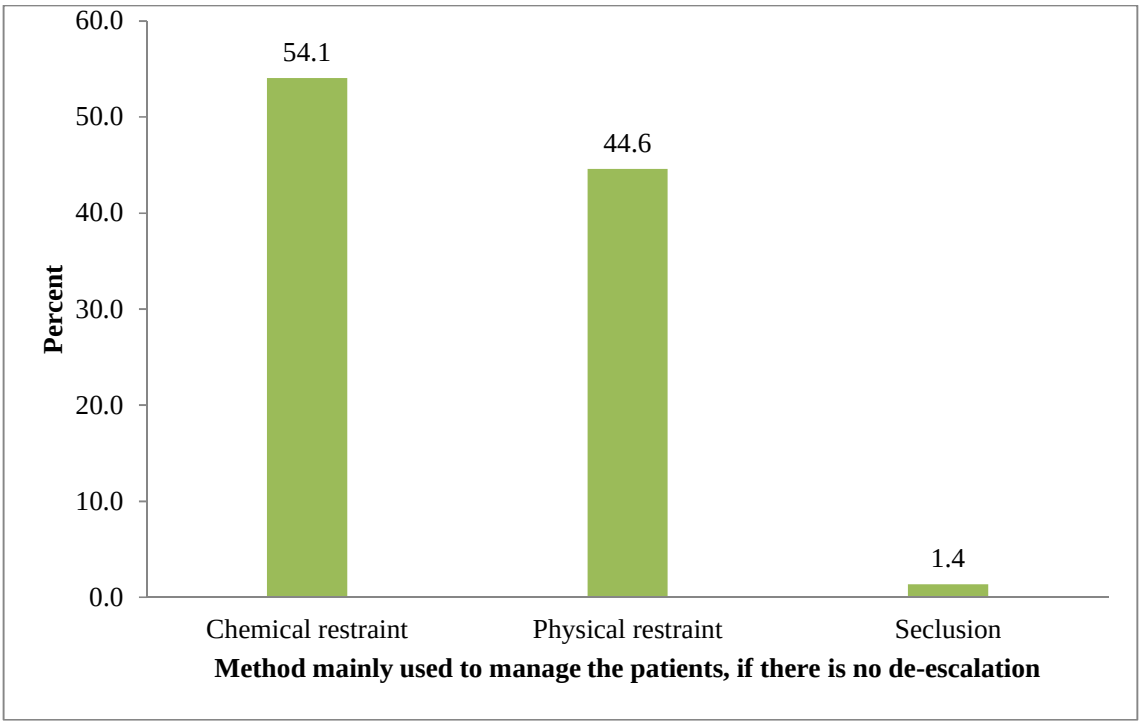

Figure 4.3: Method mainly used to manage the patients, if there is no de-escalation

4.4.5: Bivariate analysis of process factors that influence perceived quality of emergency mental healthcare

As indicated in Table 4.7, all the process factors were significantly associated with perceived quality of emergency mental healthcare except sufficient provider safety measures when attending to emergency mental health patients and whether feeling safe when attending to a patient presenting with emergency mental health.

Moreover, there was significantly high proportion of perceived good quality of emergency mental healthcare among respondents with high and moderate overall score of process than those with very low overall score of process (p=0.000).

Table 4.7: Bivariate analysis of process factors stratified perceived quality of emergency mental healthcare

Variables	Perceived good quality		Perceived poor quality		χ2 value	df	P value
	n	%	n	%			
There is an effective triaging of patient in the outpatient department							
Yes	66	61.7%	41	38.3%			
No	15	31.9%	32	68.1%	16.94	2	0.000
Don't know	0	0.0%	5	100.0%			
The SOPs (if available) properly are adhered to when providing emergency mental health care							
Yes	37	68.5%	17	31.5%			
No	43	45.3%	52	54.7%	14.61	2	0.001
Don't know	1	10.0%	9	90.0%			
The referral protocol (if available) is adhered to when referring emergency mental health patients							
Yes	59	67.0%	29	33.0%			
No	20	31.3%	44	68.8%	20.46	2	0.000
Don't know	2	28.6%	5	71.4%			
The provider-patient interaction with patients presenting with emergency mental health is satisfactory							
Yes	56	69.1%	25	30.9%			
No	23	31.1%	51	68.9%	22.41	2	0.000
Don't know	2	50.0%	2	50.0%			
The patients are presenting with emergency mental health cases provided with privacy adequately							
Yes	36	67.9%	17	32.1%			
No	43	41.7%	60	58.3%	9.90	2	0.007
Don't know	2	66.7%	1	33.3%			
The rights of patients are presenting with emergency mental health is upheld							
Yes	61	65.6%	32	34.4%			
No	19	29.7%	45	70.3%	19.56	2	0.000
Don't know	1	50.0%	1	50.0%			
Staffs handle emergency mental health patients with respect							
Yes	74	57.4%	55	42.6%			
No	7	25.0%	21	75.0%	11.75	2	0.003
Don't know	0	0.0%	2	100.0%			
During treatment of emergency mental health patients, is informed consent sought							
Yes	53	62.4%	32	37.6%			
No	27	38.0%	44	62.0%	9.54	2	0.008

Don't know	1	33.3%	2	66.7%			
The waiting time for emergency mental health patients is in line with the service delivery charter							
Yes	35	63.6%	20	36.4%			
No	37	40.7%	54	59.3%	9.14	2	0.010
Don't know	9	69.2%	4	30.8%			
There are sufficient provider safety measures when attending to emergency mental health patients							
Yes	33	58.9%	23	41.1%			
No	47	47.0%	53	53.0%	2.42	2	0.298
Don't know	1	33.3%	2	66.7%			
Whether feeling safe when attending to a patient presenting with emergency mental health							
Yes	24	60.0%	16	40.0%	1.75	1	0.185
No	57	47.9%	62	52.1%			
There is monitoring of emergency mental health patients who are secluded							
Yes	75	54.7%	62	45.3%			
No	4	21.1%	15	78.9%	7.88	2	0.019
Don't know	2	66.7%	1	33.3%			
There is regular monitoring							
Yes	60	58.3%	43	41.7%			
No	19	35.8%	34	64.2%	7.33	2	0.026
Don't know	2	66.7%	1	33.3%			
There is adequate treatment of emergency mental health patients							
Yes	46	69.7%	20	30.3%			
No	34	37.4%	57	62.6%	16.01	2	0.000
Don't know	1	50.0%	1	50.0%			
The emergency mental health occurrences are documented							
Yes	76	55.5%	61	44.5%			
No	4	22.2%	14	77.8%	8.14	2	0.017
Don't know	1	25.0%	3	75.0%			
Whether the documentation of occurrences is done consistently							
Yes	69	57.5%	51	42.5%			
No	10	29.4%	24	70.6%	8.61	2	0.013
Don't know	2	40.0%	3	60.0%			
Overall score of process-related factors in the delivery of care							
Very low (<25%)	4	13.8%	25	86.2%			
Low (25-49%)	20	40.0%	30	60.0%	32.43	3	0.000
Moderate (50-74%)	41	68.3%	19	31.7%			
High (75% and above)	16	80.0%	4	20.0%			

CHAPTER FIVE

SUMMARY OF FINDINGS CONCLUSION AND RECOMMENDATION

This chapter contains discussions and conclusion of the study, as well as recommendations based on study's conclusion.

5.1: Socio-demographic characteristics of study participants

Most of the respondents 83% (n=110) were nurses, and majority 79% (n=125) of them being female. Most 41% (n-63) of the respondents were 40-49 years, followed by age 50-59 years 30% (n-48). Education level of respondents was higher diploma 42% (n=67), with nurses being majority 50% (n=66), diploma 28% (n=45), majority being nurses 33% (n=44), all the registrars were at degree level. Most 21 (n=34))of the respondents had worked in the hospital for 6-10 years, followed by 18% those who had worked for 10-15 years, and 17%)1-3 years.

Association between socio-demographic characteristics and perceived quality of psychiatric emergency care indicated the proportion of perceived good quality emergency care was more among females compared to males; however, this was not statistically significant. There was significantly low proportion of perceived good quality emergency care among respondents aged and 40 to 49 years than those aged 20 to 29 years. Skilled staffs, use of referral protocols and effective communication were important factor associated with better quality of mental health emergency care.

5.2: Perceived quality of Emergency Mental Health Care

From this study, most of the respondents rated the quality of emergency care as average. There was significantly low proportion of perceived good quality emergency care among respondents aged 30 to 39 years (30.6%) [OR=0.09; 95%CI=0.02-0.47; P=0.004] and 40 to 49 years (44.4%) [OR=0.16; 95%CI=0.03-0.79; P=0.025] than those aged 20 to 29 years (83.3%). A study in Australian and New Zealand indicated there is a significant relationship between structure and process, and quality of care (Smart et al. 1999)

Majority of the respondents described that there was average adequacy of facilities and medical equipment (55.3%) required to support provision of emergency mental health care [p

= 0.013]. Staff skills and respect of patients was perceived as good .Monitoring of secluded psychiatric patients was reported as fair, however, (39.6%) indicated poor budget allocated by the hospital management to support provision of psychiatric emergency care.

The study findings demonstrate perception of quality care was poor among those with low structural index (8.6%), as compared to those with high and moderate scores who perceived quality as good. Significantly higher among those who had an overall moderate score on structural related factors [P=0.019].

5.3: Structural factors

Majority of the participants 66.9%, (n = 105) were of the opinion that the hospital is not structurally adequate to handle quality mental health emergency care. The following are structural factors which participants perceived to be affecting quality of mental health emergency care: inadequate medical equipment [81 %, n = 129P=.013], adequate skilled staff [83%, n= 132, p= .011], use of referral protocols [p=.016], motivation [p=.029], support from hospital management [p=.03], communication [p=.03].

The above components were looked at in the study as structural factors influencing the quality of mental health emergency care. These were analyzed and scored to obtain an overall score which measured quality index. Findings also indicate that majority of respondents, 47% (n=45) reported that the structure for mental health emergency care was poor. Structural related factors such facility adequacy, equipment and supplies, staff adequacy and training, lack of guidelines were significantly associated with poor quality of mental health emergency care [OR=3.97; 95%CI=1.26-12.49; P=0.019] In Portugal,a study found that less than 3.5% of its healthcare budget was allocated for mental health services (WHO, 2009). According to CDC report (2013), costs in public mental health spending is minimal, leading to limited budgetary allocation towards mental health care in general. This study 65% (n-103) indicated that budgetary allocation for mental health emergency care was not sufficient as indicated by the key informants. “Budgetary allocation is not sufficient” (KII 1).

A similar study conducted in Kilifi indicated that there was no budget allocated for mental health care (Bitta et al, 2017).

Accreditation of health facilities has been reported to impact positively in the structural and process-related factors leading to better care outcome (Alkhenizan A. Shaw C. 2011) Shortage of medical equipment may be unavailability, poor quality, poor maintenance or lack, which hinders the provision of care (Moyimane M.B. et al, 2017). This study found that majority 81% (n=129) reported inadequate medical equipment. Most 93% (n=148) reported that the existing seclusion rooms in the wards were not adequate for psychiatric emergency care. This may be due to lack of, or non-exiting records of client identified health needs (WHO, 2012)

Privacy ranges from storage of patient information, who is allowed to access the information, to surroundings in which care is provided. A study indicated that modification of environment may promote privacy during assessment and interview. However, there is no one single standard evidence-based design for the environment (Lin et al. 2013). This study indicated more than about half (64%) of the participants perceived lack of privacy when providing care.

Training of health care providers improves their confidence when offering service to patients with mental health emergencies (Marciano et al, 2012). (Turner et al. 2015). This study indicated the majority felt there was inadequately skilled staff to handle psychiatric emergencies. About 61% (n=98)of healthcare providers in Mathari hospital have specialized training in mental health care, however, the study demonstrated that majority 76% (n=121) had not had any refresher course on mental health emergency care within the previous six month.

According to Betz et al, (2013) revealed care providers felt staffing was adequate. However, this study 61% indicated that the available staffs were adequately skilled in providing emergency psychiatric services [p=.011] Adequate skilled staffing may positively impact on the therapeutic environment have the expertise to handle mental health emergencies. Well trained health care providers will perceive mental health emergencies as challenging opportunities to handle rather than as unpleasant situations. However, study findings indicated that the program in psychiatry training does not provide sufficient teaching on psychiatric emergency care in their curriculum in the basic course due to time constraint

(Lofchy J. et al 2015). In another study, health care providers perceived lack of knowledge, skills, and expertise in handling psychiatric emergency patients (Manton, 2013)

Safety measures within the hospital were perceived to be inadequate 82% (n=130) to ensure safety for both staff and others. (d"Ettorre, Pellicani (2017), in their study indicated that risk assessment should be given priority when assessing a patient in an acute state of mental illness in order to reduce the risk of violence meted on care providers.

A referral protocol for referring psychiatric emergency patients is in use as reported by 65% (n=103). This is inconsistent with another study which indicated that the presence of policy frameworks that are not up to standard pose a challenge to the delivery of care (Marangu E. et al, 2014). Consistent use of SOPs guides in harmonizing procedures and reporting, significantly affecting quality [p=.00] The White Paper (2013) recommends that clear guidelines be formulated to guide on triaging of mental health patients.

Hospital management commitment to support the provision of quality psychiatric emergencies significantly affects quality [p = .03], this study showed about half 48% (n=73) indicated there is no support. Another similarly indicated the relationship experienced between the hospital administration and the staff should be perceived as mutual so that it may positively impact on the staff performance (Bird., et al 2011). Administrative support may be perceived as not sufficient because there other areas that need their attention, such as day to day running of the hospital.

The study indicated that there was effective communication 55% (n=88%) within and across departments to facilitate proper management of psychiatric emergencies. This is attributed to the fact that communication has been made easier through the use of common format and terms. A toolkit targeting teamwork and communication among care providers which was found to significantly improve communication and feedback. Coordination amongst care providers during management of mental health emergency is vital, training care providers on communication were found to be an important component (Improving Patient Safety through Provider Communication Strategy Enhancements (Dingley et al. 2008)

5.4: Process-related factors in the delivery of psychiatric care

In terms of process factors, effective triaging, use of SOPs, adherence to referral protocols, provider-patient interaction, and observing patients' rights and staff safety were demonstrated to significantly affect the quality of mental health emergency care. The highest percentage 37% of the respondents perceived that the process for psychiatric emergency care was moderate/average. However, a considerable percentage 31% and 18% scored the processing system as low and very low respectively. This study indicated there was an effective triaging of the patient in the outpatient department [p=.00]. This is in line with a study that found mentally ill patients getting higher scores in triaging than the general patient (Atzema C. et al 2012). In addition use a triage scale has been proven to improve provider confidence and ensures patient safety and better outcome (Broadbent . et al, 2002). However, in Australia, study findings show that triage of general patients in the emergency department is well established as opposed to the triage of patients with mental illness. (Broadbent .et al , 2007).

The study indicated that informed consent is sought during treatment; provider-patient interaction was satisfactory 51%. Nevertheless, inadequate privacy was reported 65%. Over half 59% of the respondents indicated that the rights of patients are upheld, significantly affecting quality [p=.01]. Most believe that psychiatric emergency patients were handled with respect by the staffs. Contrary to this study findings, another study indicated patients' rights are often violated during involuntary admission when they are retained in the hospital without their opinion being sought (Svindseth, Nottestad & Dahl, 2010)

This study indicates patients experience long waiting hours, waiting time is not in line with the service delivery charter according to this study. About half of the respondents 57% pointed out that the waiting time for emergency mental health patients was in line with the service delivery charter, which is up to 60 minutes. Contrary to this study, a study in Nigeria reported waiting time to be between 3-21 hours. Average waiting time in the emergency department in Ontario was found to be slightly shorter (10 minutes) for patients with severe mental disorders as compared to the general patients, (Clare L., et al, 2012) In another study, waiting time was found to be longer for patients with mental disorders as compared to those without mental disorders (Waseem et al, 2010). Another study by American College of Emergency Physician's, reported patient waiting times of between 7 to 10 hours to be seen

(Health Care Finance 2016) Use of a mental health triage scale significantly reduced waiting time and time of movement from the ED to the wards (Smart D., et al, 1999)

Care providers,(63%) perceive inadequate safety measures when attending to the patients with emergency mental health according to this study, significantly affecting the quality of care [p = .00]. This is in line with a study that indicated, assessing for risk should be a priority when caring for the patient in order to minimize violence meted on care provides while attending to these patients (Nazarian D.J., 2017)

The study indicated there is documentation of emergency mental health when they occur. This is contrary to a report from Haris Health Systems in Los Angels, which reported poor documentation of all aspects of mental health care (Tucci, et al, 2016). Occurrences of emergency mental health when clearly and accurately documented allows for ease of communication amongst the staff (Simon, 2011).

This study indicated that provider-patient interaction was satisfactory (51%). Contrary to this, a study in Hong Kong showed that communication between provider-patient and the provider was not effective, thus compromising the quality of care (Jack K.H. et al 2015). Provider-patient interaction should not be just an interview for purposes of diagnosing, time should be invested in the patient's opportunity to ask questions to clear any doubts. Effective communication skills reduce occupational stress amongst healthcare workers (Ghazavi G., 2010). A study in Australia revealed that care providers are eager to learn more evidence-based methods that will help them provide quality care (Manton,2013)

This study indicates standard operating procedures were adhered to (60%), and referral protocol was used when providing psychiatric emergency care (55%). These significantly affected quality of care [p = .00], [p = .001] respectively. Some healthcare providers felt that the use of guidelines or protocols were user-friendly, facilitated the easy transfer of patients and were important in patient care (Bhugra, 2013)

Most reported there was monitoring of psychiatric emergency patients who are secluded. Patients who are secluded require regular monitoring (Chang, 2010). Health care providers must be vigilant when a patient is restrained, and be on the lookout for injuries (Secure Rooms and Seclusion Standards and Guidelines 2012).

Significantly perceived to be affecting quality is safety measures in place, and safety when providing care. In this study majority (63%) perceived insufficient provider safety measures when attending to psychiatric emergency patients [p = 0.001]. Similarly, most indicated that they do not feel safe when attending to a patient presenting with mental health emergency [p = 0.05]. Anderson A. et al (2005), indicated in their study violence against healthcare personnel is on the increase, commonly occurring early in the career. This may be attributed to less experience on the lookout for risk factors. Similarly, threats and assault were increasingly experienced by a considerable number of health care workers. Those with more experience were advantaged, but that did not rule out assault completely. (Pellegrini, 2014)More than half indicated inadequate treatment of mental health emergency patients. The study indicated that less than 2% of the aggregate wellbeing spending plan has led to scarce resources, resulting in inadequate treatment.

However, most (86%) of the respondents were documenting the psychiatric emergency occurrences and 75% indicated the documentation was done consistently. This is contrary to what was found a study by Tucci V. et al (2016) indicating that there is generally very poor documentation of psychiatric examination by health care providers in the event of a mental health emergency.

The study shows there is no de-escalation before patient restraint. Chemical restraint (54%) and physical restraints (45%) are the commonly used methods of managing patients. However, it has no significance in quality of care. This is perceived to affect the quality of care [p = 0.00] A study carried out on service users indicated the use of seclusion as a convenient option for the care provider, rather than a therapeutic measure (Mayers P, et al, 2010)

5.5. Conclusion

The study looked at factors which are known to affect quality of care. The testing hypothesis was performed between all the factors (structural, process and care outcome) against level of satisfaction with quality of mental health emergency care provided. There was a significant relationship between process and outcome. Those who scored moderate and high in process

index are more likely to perceive care as quality [p = 0.000]. Same applies to those who scored moderate in outcome index are likely to perceive care as quality [p = 0.003]

The H_0 = There is no relationship between structural factors, process factors, outcome factors and quality of mental health emergency care at Mathari Hospital was not supported.

There is a statistically significant relationship between process factors, outcome factors and quality of psychiatric emergency care at Mathari Hospital.

5.6 Limitations and Implications

Respondents selected for key interviews were form the nursing profession. A sample of psychiatric consultants as policy makers would have given different views.

Regular monitoring and use of standard operating procedure guidelines during care will ensure delivery f appropriate care.

5.7 Recommendations

1. Investing in human resource staff training (Continuous Medical Education) on evidence-based mental health emergency care.
2. Budgetary allocation for mental health emergency care should be stated clearly among other budgetary allocations and channeled towards the same.
3. Security should be beefed up by investing in human resource.
4. Clear standard guidelines should be available for evaluation, mental health emergency care, and discharge and follow up.

5.8 Recommendation for research

Further studies on quality of mental emergency health care, be carried out in other facilities offering mental health emergency care.

A retrospective replication of the study should be carried out.

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APPENDICES

Appendix 1: Budget of the Study

The study budget is approximately 193,935. The researcher will finance the study from personal savings.

S/no	Item	Quantity	Cost per unit	Total (kshs)
	Laptops	1	35000	35000
	Pens	10	25	250
	Pencils	10	30	300
	Rubbers	4	25	100
	Notebooks	15	100	1500
	Scientific calculators	2	1200	2400
	Sharpener	3	30	90
	Paper punch	2	500	1000
	Stapler	1	300	300
	Stapler pins	2	150	300
	Box files	3	250	750
	Folders	8	250	2000
	Printing charges (Pages)	260	10	2600
	Airtime		5000	5000
	Transport and lunch (per day)	3	1000	3000
	Binding of report copies	6	500	3000
	Data entry clerks	3	1500	4500
	Data Processing and Analysis	1	40000	40000
	Ethics committee fee	1	2000	2000
	Total			109090
	Contingency		5% of total	5455
	Grant total			114545

Appendix 2: Work Plan

ACTIVITY/ PERIOD	2017							
	Jan-Feb	Mar-Apr	May	Jun	Jul	Aug	Sep	Oct
Problem Identification								
Proposal writing								
Ethical review approval								
Pretesting of study tools								
Data collection								
Data coding, entry and cleaning								
Data analysis								
Report writing and presentation								
Dissemination of study findings								

Appendix 3a: Informed Consent Information Sheet

Introduction

Good morning/afternoon. My name is Teresa Ochieng'. I am a student at the School of Nursing Sciences, University of Nairobi pursuing a Master of Science Degree in Nursing. I am conducting a study titled: Determinants of Quality of emergency mental health care at Mathari Hospital I am conducting a study in this health facility with the goal of assessing the quality of psychiatric emergency care amongst health care workers. In order to understand this, I am asking for permission to interview you on quality of care.

Your participation

You are invited to take part in this research study because you are a health care worker, working in this hospital. Before you decide whether to participate you need to understand why the research is being done and what it would involve. Please take time to listen as I read the following information. When you feel you have understood about this study and all your questions have been answered, I will ask you if you wish to participate in the study, and if you agree, I will ask you to sign an informed consent form. You will be given a signed copy to keep as well.

Purpose of the study and requirements

The purpose of the study is to better understand the psychiatric emergency care given. The aim of the study is to assess the quality of psychiatric emergency care provided at Mathari Hospital.

If you agree to take part in this study, I will ask you to sign a consent form. Participation in this study is voluntary and will involve responding to questions from a questionnaire pertaining to : socio-demographic characteristics; questions on structural characteristics of psychiatric emergency care; questions on process-related factors in the delivery of psychiatric care; questions on care-outcome related factors of psychiatric emergency care which will include: satisfaction levels, relapse, readmissions and recovery, patient follow up, documentation, efficiency in resource use and patient discharge and Section E which will

comprise a set of questions on quality of psychiatric emergency care perceptions. The key informant guide will comprise the probes on the perceptions of psychiatric care quality and factors affecting quality of care which will include the structural, process and care outcome factors personal information, demographic data and psychiatric emergency care and management.

The interview would take no longer than 30 minutes to complete.

Risks

There is minimal risk in participation in this study. Any inconvenience may be of the time and effort you take to participate. You may find one or more questions that I may ask to be emotionally upsetting or sensitive. You are free not to respond to any question that makes you uncomfortable. You may end the interview at any time without penalty.

Benefits

There are no direct benefits to you for participating in the study. You may find an indirect benefit in knowing that you have participated in a study that will help nurses and other staff in the future. You will not receive any money or other compensation if you agree to participate.

Confidentiality

The information we collect during the interview will be handled and kept private and with confidentiality. No one will be told that you participated in this study, although information from this interview will be shared with other nurses and staff for study and analysis, neither your name nor other identifiers will be included in the shared data or reports from this study. Data will be stored and locked safely by myself.

The results of the study will be discussed with health care professionals such as nurses, psychiatrists and staff, presented in conferences, and published in articles for the purpose of improving the quality of psychiatric emergency services.

Voluntariness

Your participation in this study is completely voluntary.. If you agree to participate in this study, you are free to end your participation at any time without penalty. If you decide to participate, I request you be honest as possible and there is no right or wrong answer or response in this study. You are free to withdraw any time without affecting your relationship with the health facility or the other health providers.

Compensation: There is no compensation for participating in the study.

Conflict of interest: The researcher and the supervisors confirm that there is no conflict of interest amongst them.

Appendix 3b: Kibali cha Kuhusika katika Utafiti

Hujambo, Jina langu ni Teresa Ochieng. Mimi ni mwanafunzi katika chuo kikuu cha Nairobi

Ninakuuliza uhusike katika uchunguzi wa utafiti.

Kabla ukubali, mimi kama chunguzaji lazima nikueleze kuhusu (i) malengo, utaratibu, na muda wa utafiti; (ii) utaratibu wowote ambao ni wa kujaribu; (ii) hatari, matatizo na faida zozote za utafiti ambazo zinaweza kuonekana; na (v) jinsi faragha itaweza kudumishwa.

Inapowezekana, mimi kama mchunguzaji lazima nikueleze kuhusu (i) fidia yoyote inayopatikana au matibabu kama majeraha yatafanyika (ii) uwezekano wa hatari zisizoweza kuonekana; (iii) hali wakati mimi kama mchunguzaji ninanaweza kusitisha kuhusika kwako; (iv) gharama yoyote iliyoongezwa kwako; (v) kinachofanyika ukiamua kukoma kuhusika; (vi) wakati utakapoambiwa kuhusu matokeo mapya ambayo yanaweza kuathiri kutaka kwako kuhusika; na (vii) ni watu wangapi watakuwa katika utafiti.

Ukikubali kuhusika, lazima nikupe nakala iliyowekwa saini ya hati hii na muhtasari ulioandikwa wa utafiti huu.

Ukiwa na swali au hitaji la maelezo yoyote kuhusu utafiti huu au kuhusu haki zako kama muhusika wa utafiti, unaweza kuwasiliana na:

Mtafiti

Teresa w. Ochieng

Nambari ya simu: 0723853173

Barua Pepe: terrywahowe@yahoo.com ,.

Pia, unaweza kuwasiliana na:

Mwenyekiti,

Chuo Kikuu cha Nairobi- Kenyatta National Hospital Maadili na Kamati ya Utafiti

P. O BOX 191676 Kanuni 00202

Tel: (254-020) -2726300 Ext 44355

Uhusikaji wako katika utafiti huu ni wa hiari, na hutaadhibiwa au kupoteza manufaa ukikataa kuhusika au ukiamua kukomesha.

Kuweka saini hati hii humaanisha kwamba uchunguzi wa utafiti, ikiwa ni pamoja na maelezo yaliyo hapa juu, yamefafanuliwa kwako kwa kuongea, na kwamba unakubali kwa hiari kuhusika.

_____ _____

MUHUSIKA TAREHE
(SAINI)

.<u>Mkalimani</u>

Kwa kuweka saini hapa chini unathibitisha kwamba utafiti umefafanuliwa kabisa kwa muhusika kwa lugha ambayo anaelewa na maswali yake yote yamejibiwa.

_____ _____

MKALIMANI TAREHE
(SAINI)

Appendix 4a: Consent Form (English Version)

If you Consent to Participate in the study please sign below:

I hereby consent to participate in this study. I have been informed of the nature of the study being undertaken and potential risks explained to me. I also understand that my participation in the study is voluntary and the decision to participate or not to participate will not affect my employment status at this facility in any way whatsoever. I may also choose to discontinue my involvement in the study at any stage without any explanation or consequences. I have also been reassured that my personal details and the information I will relay will be kept confidential. I confirm that all my concerns about my participation in the study have been adequately addressed by the investigator and the investigator have asked me questions to ascertain my comprehension of the information provided.

Participants Signature (or thumbprint)……Date……

I confirm that I have clearly explained to the participant the nature of the study and the contents of this consent form in detail and the participant has decided to participate voluntarily without any coercion or undue pressure.

Investigator Signature……Date.……...

For any Clarification, please contact any of the following persons:

Teresa Ochieng"

Researcher

Mobile Number: 0723 853 173

Email: terrywahome@yahoo.com

The Chairman,

University of Nairobi- Kenyatta National Hospital Ethics and Research Committee

P.O BOX 19676 Code 00202

Tel: (254-020)-2726300 Ext 44355

Email: uonknh_erc@uonbi.ac.ke

Appendix 4b: Fomu ya Kutoa Idhini Kushiriki

Kama wewe umekubali Kushiriki katika utafiti huu, tafadhali tia sahihi chini:

Mimi nimekubali kushiriki katika utafiti huu, nimefahamishwa asili ya utafiti unaofanywa na uwezekano wa hatari iliyopo. Mimi pia nimeelewa kwamba ushiriki wangu katika utafiti huu ni wa hiari na uamuzi wa kushiriki au kutoshiriki hautaathiri hali yangu ya ajira katika kituo hiki kwa njia yoyote ile. Mimi pia ninaweza kuchagua kuacha kushiriki kwenye utafitihuu katika hatua yoyote bila maelezo yoyote au madhara. Mimi pia nimeakikishiwa kuwa maelezo yangu binafsi na taarifa nitakazotoa zitakuwa siri. Mimi ninathibitisha kwamba wasiwasi wangu wote kuhusu ushiriki wangu katika utafiti umekuwa wa kutosha kushughulikiwa na uchunguzi na mpelelezi ataniuliza maswali ili kuhakikisha ufahamu wangu wa taarifa zinazotolewa.

Mshiriki Sahihi ..... Tarehe .....

Mimi ninathibitisha kwamba nimeelezwa kwa mshiriki asili ya utafiti na yaliyomo kwenye fomu hii ya idhini kwa kina na mshiriki imeamua kushiriki kwa kujituma bila kutumia nguvu yoyote au shinikizo lolote.

Mpelelezi Sahihi ..... Tarehe. ....

Kwa Ufafanuzi wowote, tafadhali wasiliana na:

Teresa Ochieng

Mtafiti

Simu Idadi: 0723 853173

Barua Pepe: terrywahowe@yahoo.com

Mwenyekiti,

Chuo Kikuu cha Nairobi- Kenyatta National Hospital Maadili na Kamati ya Utafiti

P. O BOX 191676 Kanuni 00202

Tel: (254-020) -2726300 Ext 44355

Appendix 5: Research Questionnaire

Thank you for your willingness to participate in this study. My name is Teresa Ochieng'. I am a student at the School of Nursing Sciences, University of Nairobi pursuing a Master of Science Degree in Nursing. I am conducting a study titled: Determinants of quality of emergency mental health care at Mathari Hospital". There are no wrong or right answers. You are encouraged to be as honest, accurate and trustful in answering the questions as possible. All gathered information will be kept confidential and will only be used for the purposes of this study. You will not be required to identify yourself by name. There is no right or wrong response. Feel free to ask for any clarification you may need. Thank you.

Instructions

Do not write your name anywhere in this questionnaire

Put a tick or circle against the appropriate box/response or fill the blank spaces where required

Section A: Socio-Demographic Information

What is your gender?

[1] Male [2] Female

What is your age in years?

[1] 20-29 years [2] 30-39 years [3] 40-49 years [4] 50-59 years

[5] Over 60 years

What is your highest level of education?

[1] Certificate [2] Diploma [3] Higher Diploma [4] Degree

[5] Post-graduate Diploma [6] Masters [7] PhD

What is your professional qualification?

[1] Nurse [2] Registrar [3] Consultant Psychiatrist [4] Medical Officers [5] Others (Specify): ……..

For how long have you worked at Mathari Hospital?

[1] Less than One year [2] 1-3 years [3] 4-5 years [4] 6-10 years [5] 10-15 years [6] Over 15 years

Section B: Structural Factors

The following section will ask you questions regarding psychiatric emergency care services in this hospital. Please tick (√) the most appropriate response in the box below.

N^{o}	Question	Response		
		Yes	No	I don't Know
	Is the budget allocated for psychiatric emergency services sufficient?			
	Are the existing seclusion rooms in the wards adequate for psychiatric emergency care?			
	Are the existing rooms in the outpatient department adequate for handling psychiatric emergency care?			
	Are there adequate medical equipment for managing emergency patients			
	Are there adequate beds designed for care of psychiatric emergency patients			
	Are there adequate staff to manage psychiatric emergency patients			
	Are the available staff adequately skilled in providing emergency psychiatric services			
	In the last six months, have you had any training (including refresher course) on emergency psychiatric care?			
	I s there a standard operating procedure (SOPs) for psychiatric			

	emergency care?			
	Do you feel the safety measures within the hospital are adequate to ensure safety of both staff and other			
	Is there a referral protocol (guidelines) for referring psychiatric emergency patients?			
	Is the cost of psychiatric emergency services affordable to patients			
	Are essential drugs and supplies required in managing psychiatric emergency cases consistently available?			
	Do you feel adequately motivated to attend to psychiatric emergences?			
	Do you feel the hospital management is committed to support provision of quality psychiatric emergencies			
	In case of a psychiatric emergency, is there effective communication within and across departments to facilitate proper management of psychiatric emergencies?			

Section C: Process Factors

The following section will ask you questions regarding psychiatric emergency care services in this hospital. Please tick (√) the most appropriate response that describes your opinion in the box below.

N^{o}	Question	Response		
		Yes	No	I don't Know
	Is there an effective triaging of patient in the outpatient department?			
	Are the SOPs (if available) properly adhered to when providing psychiatric emergency care?			
	Is the referral protocol (if available) adhered to when referring emergency psychiatric patients?			

	Do you feel that the provider-patient interaction with patients presenting with psychiatric emergencies is satisfactory?			
	Are the patients presenting with psychiatric emergency cases provided with privacy adequately?			
	Are the rights of patients presenting with psychiatric emergency upheld?			
	Do staffs handle psychiatric emergency patients with respect?			
	During treatment of psychiatric emergency patients, is informed consent sought?			
	Is the waiting time for emergency psychiatric patients in line with the service delivery charter			
	Are there sufficient provider safety measures when attending to psychiatric emergency patients?			
	Do you feel safe when attending to a patient presenting with psychiatric emergency?			
	Is there monitoring of psychiatric emergency patients who are secluded?			
	If there is monitoring, is it regular?			
	Do you feel that there is adequate treatment of emergency psychiatric patients?			
	Are the psychiatric emergency occurrences documented?			
	If there is documentation of occurrences, is it consistently done?			
	In the occurrence of a psychiatric emergency, is the patients deescalated before restraint?			
	If there is no de-escalation, which of the following method is mainly used to manage the patients?			
	Chemical restraint			
	Physical restraint			
	Nothing is done			
	Others (Specify)			

Section D: Care-Outcome Factors

The following section will ask you questions regarding psychiatric emergency care services in this hospital. Please tick (√) the most appropriate response in the box below.

	Question	Response		
		Yes	No	I don't Know
	Are you satisfied with the quality of emergency psychiatric services provided in this hospital?			
	Do you feel that there is available resources are efficiently used in providing emergency psychiatric services?			
	Is there follow up of emergency psychiatric patients after discharge (i.e. either through text messages and phone calls)			
	Do you feel there is a high rate of re-admissions of patients who present with psychiatric emergences?			
	Are emergency psychiatric management measures effective in preventing relapses?			

Section E: Quality of Emergency Mental Health Care perceptions

The following sections comprise statements on your perception on quality of emergency mental health services provided in this hospital. On a scale of 1-5, where '1' means 'Very Poor', '2' means 'Poor', '3' means 'Fair', '4' means 'Good' and '5' means 'Very Good'. Please circle rank that best describes your opinion or view.

	Statement	Ranking Scale				
	Adequacy of facilities required to support provision of psychiatric emergency care?	1	2	3	4	5
	Adequacy of medical equipments required providing quality psychiatric emergency care?	1	2	3	4	5
	Availability of drugs and supplies required in providing emergency psychiatric services?	1	2	3	4	5
	Adequacy of skilled staff required to provide psychiatric emergency care	1	2	3	4	5
	Respect accorded to psychiatric emergency patients	1	2	3	4	5
	Monitoring of secluded psychiatric patients	1	2	3	4	5
	Adequacy of funds (budget) allocated to support provision of psychiatric emergency care	1	2	3	4	5
	Effectiveness of patients triaging in the outpatient department?	1	2	3	4	5
	Treatment of psychiatric emergency patients	1	2	3	4	5
	Provider-patient interactions for emergency psychiatric care	1	2	3	4	5
	Effectiveness of psychiatric emergency care provided	1	2	3	4	5
	Satisfaction with quality of psychiatric emergency care provided	1	2	3	4	5
	Documentation of psychiatric emergency cases	1	2	3	4	5
	Management commitment in improving quality of psychiatric emergency care	1	2	3	4	5
	Staff training on provision of psychiatric emergency care	1	2	3	4	5
	Staff motivation to provide quality psychiatric emergency care	1	2	3	4	5

Thank you for your participation

Appendix 6: Key informant Guide

Identification Panel

Position of Interviewee:_____Qualification:_____

Department of Interviewee:_____

Date of Interview:_____Name of Interviewer:_____

Questions:

In your own opinion, what is the quality of psychiatric emergency services provided in this facility? *Probe for operational and functional capacity to meet service demands, quality perceptions and changing trends in quality of care delivery such as quality improvement strategies.*

From your own experience, what are the main structural-related factors which affect quality of psychiatric care in this facility? *Focus the interview on amount of budget, facility adequacy, availability medical equipment, staff skills and capacity, training, SOPs and referrals, access cost, distance), Drugs and supplies, Incentives and motivation, management commitment and communication.*

From your own experience, what are the process-related factors which affect quality of emergency psychiatric care in this facility? *Base the probes on adherence to SOPs, patient management (de-escalation, chemical or physical restrains), provider-patient interactions, provision of privacy, confidentiality, respect, informed consent, Patient Triaging, waiting time, provider safety, documentation and patient evaluation) and treatment*

From your own experience, what are the care-outcome related factors which affect quality of emergency psychiatric care in this facility? Focus the interview on *client satisfaction,*

provider satisfaction, admission, relapse and re-admissions, follow up, resource efficiency and patient discharge

In your own view, how would rate health professionals satisfaction with quality of care in this facility?

In regards to improvement of quality of care in this facility, what can be done to improve quality of emergency psychiatric care?

Appendix 7: Dummy Tables

Dummy Table for Socio-Demographic Characteristics

Socio-Demographic Variables	F	%
What is your gender?		
Male		
Female		
What is your age in years?		
20-29 years		
30-39 years		
40-49 years		
50-59 years		
Over 60 years		
What is your highest level of education?		
Certificate		
Diploma		
Higher Diploma		
Degree		
Post-graduate Diploma		
Masters		
PhD		
What is your professional qualification?		
Nurse		
Registrar		
Consultant Psychatriast		
Medical Officer		
Others		
For how long have you worked at Mathari Hospital?		
Less than One Year		
1-3 years		
4-5 years		
6-10 years		
11-15 years		
Over 15 years		

Dummy Table for Structural Factors

Structural Variables	Yes		No		I don't Know	
	F	%	F	%	F	%
Is the budget allocated for psychiatric emergency services sufficient?						
Are the existing seclusion rooms in the wards adequate for psychiatric emergency care?						
Are the existing rooms in the outpatient department adequate for handling psychiatric emergency care?						
Are there adequate medical equipment for managing emergency patients						
Are there adequate beds designed for care of psychiatric emergency patients						
Are there adequate staff to manage psychiatric emergency patients						
Are the available staff adequately skilled in providing emergency psychiatric services						
In the last six months, have you had any training (including refresher course) on emergency psychiatric care?						
I s there a standard operating procedure (SOPs) for psychiatric emergency care?						
Do you feel the safety measures within the hospital are adequate to ensure safety of both staff and other						
Is there a referral protocol (guidelines) for referring psychiatric emergency patients?						
Is the cost of psychiatric emergency services affordable to patients						
Are essential drugs and supplies required in managing psychiatric emergency cases consistently available?						
Do you feel adequately motivated to attend to psychiatric emergences?						
Do you feel the hospital management is committed to support provision of quality psychiatric						

emergencies						
In case of a psychiatric emergency, is there effective communication within and across departments to facilitate proper management of psychiatric emergencies?						

Dummy Table for Process Factors

Process variable	Yes		No		I don't Know	
	F	%	F	%	F	%
Is there an effective triaging of patient in the outpatient department?						
Are the SOPs (if available) properly adhered to when providing psychiatric emergency care?						
Is the referral protocol (if available) adhered to when referring emergency psychiatric patients?						
Do you feel that the provider-patient interaction with patients presenting with psychiatric emergencies is satisfactory?						
Are the patients presenting with psychiatric emergency cases provided with privacy adequately?						
Are the rights of patients presenting with psychiatric emergency upheld?						
Do staffs handle psychiatric emergency patients with respect?						
During treatment of psychiatric emergency patients, is informed consent sought?						
Is the waiting time for emergency psychiatric patients in line with the service delivery charter						
Are sufficient provider safety measures when attending to psychiatric emergency patients?						
Do you feel safe when attending to a patient presenting with psychiatric emergency?						
Is there monitoring of psychiatric emergency patients who are secluded?						
If there is monitoring, is it regular?						
Do you feel that there is adequate treatment of emergency psychiatric patients?						
Are the psychiatric emergency occurrences documented?						
If there is documentation of occurrences, is it consistently done?						
In the occurrence of a psychiatric emergency, is the						

patients deescalated before restraint?						
If there is no de-escalation, which of the following method is mainly used to manage the patients?						
a) Chemical restraint						
b) Physical restraint						
c) Nothing is done						
d) Others (Specify)						

Dummy Table for Care Outcome Factors

Care Outcome Variable	Yes		No		I don't Know	
	F	%	F	%	F	%
Are you satisfied with the quality of emergency psychiatric services provided in this hospital?						
Do you feel that there is available resources are efficiently used in providing emergency psychiatric services?						
Is there follow up of emergency psychiatric patients after discharge (i.e. either through text messages and phone calls)						
Do you feel there is a high rate of re-admissions of patients who present with psychiatric emergences?						
Are emergency psychiatric management measures effective in preventing relapses?						

Dummy Table for Perceived Quality of Psychiatric Services

	1		2		3		4		5	
Aspect of Care	F	%	F	%	F	%	F	%	F	%
There are adequate facilities required to support provision of psychiatric emergency care?										
There are adequate medical equipment required providing quality psychiatric emergency care?										
Drugs and supplies required in providing emergency psychiatric services are readily available?										
There are skilled staff required to provide psychiatric emergency care										
Psychiatric emergency patients are treated with respect										
There is regular monitoring of secluded psychiatric patients as required										
Adequate funds (budget) are allocated by the hospital management to support provision of psychiatric emergency care										
There is effective patient triaging in the outpatient department?										
Psychiatric emergency patients are provided with adequate treatment as expected										
There is good provider-patient interactions for emergency psychiatric care										
Psychiatric emergency care provided in this hospital is adequately effective										
I am satisfied with quality of psychiatric emergency care provided by this hospital										
There is proper documentation of psychiatric emergency cases										
Hospital management is commitment in improving										

quality of psychiatric emergency care										
The hospital has been organizing sufficient staff training including refreshers on provision of psychiatric emergency care										
Staff are well motivated to provide quality psychiatric emergency care										

Appendix 8: Letter to Ethics Review Committee

Teresa Ochieng

University of Nairobi

School of Nursing Sciences

P.O Box 5306-00200

Nairobi, Kenya

7th July, 2017

The Chairman

KNH/UON Research and Ethics Committee

P.O Box 20723

Nairobi

Dear Sir/ Madam,

RE: REQUEST FOR AUTHORITY TO CONDUCT RESEARCH

I am undertaking Masters of Science in Nursing at the UON. I propose to conduct a study titled "Determinants of quality of psychiatric emergency care at Mathari Hospital" whose purpose is to establish the quality of psychiatry emergency care. This study is a requirement in partial fulfillment of the award of Master's Degree of Science in Nursing.

I therefore request for an Ethical Review Approval to conduct the study at Mathare Hospital. Attached please find a copy of my research proposal for your review and subsequent approval.

I look forward to a positive response from you.

Thanking you.

Teresa Wahowe Ochieng'

Appendix 9: Overall score of perceived quality of emergency mental health care

The following elements were used to assess the overall score of perceived quality of emergency care;

There are adequate facilities required to support provision of psychiatric emergency care (Very Poor=1; Poor =2; Fair=3; Good =4; Very Good=5)

There are adequate medical equipment required providing quality psychiatric emergency care

Drugs and supplies required in providing emergency psychiatric services are readily available

There are skilled staff required to provide psychiatric emergency care

Psychiatric emergency patients are treated with respect

There is regular monitoring of secluded psychiatric patients as required

Adequate funds (budget) are allocated by the hospital management to support provision of psychiatric emergency care

There is effective patient triaging in the outpatient department

Psychiatric emergency patients are provided with adequate treatment as expected

There is good provider-patient interactions for emergency psychiatric care

Psychiatric emergency care provided in this hospital is adequately effective

I am satisfied with quality of psychiatric emergency care provided by this hospital

There is proper documentation of psychiatric emergency cases

Hospital management is commitment in improving quality of psychiatric emergency care

The hospital has been organizing sufficient staff training including refreshers on provision of psychiatric emergency care

Staff are well motivated to provide quality psychiatric emergency care

The overall score was generated by aggregating the scores. The maximum attainable total score was 80 and the minimum was 16. The mean was generated (50.6) and those who scored above the mean (50.6) were classified as good perceived quality and those who scored below the mean (50.6) were classified as poor perceived quality of psychiatric emergency care.

Appendix 10: Overall score of structural characteristics of emergency mental health care

The following elements were used to assess the overall score structural characteristics of psychiatric emergency care;

Whether the budget allocated for psychiatric emergency services is sufficient (Yes=1; No=0; Don't know =0)

The existing seclusion rooms in the wards are adequate for psychiatric emergency care (Yes=1; No=0; Don't know =0)

The existing rooms in the outpatient department are adequate for handling psychiatric emergency care (Yes=1; No=0; Don't know =0)

There are adequate medical equipment for managing emergency patients (Yes=1; No=0; Don't know =0)

There are adequate beds designed for care of psychiatric emergency patients (Yes=1; No=0; Don't know =0)

There are adequate staff to manage psychiatric emergency patients (Yes=1; No=0; Don't know =0)

The available staff are adequately skilled in providing emergency psychiatric services (Yes=1; No=0; Don't know =0)

In the last six months, I have you had any training (including refresher course) on emergency psychiatric care (Yes=1; No=0; Don't know =0)

There is a standard operating procedure (SOPs) for psychiatric emergency care (Yes=1; No=0; Don't know =0)

Safety measures within the hospital are adequate to ensure safety of both staff and others (Yes=1; No=0; Don't know =0)

There is a referral protocol (guidelines) for referring psychiatric emergency patients (Yes=1; No=0; Don't know =0)

The cost of psychiatric emergency services is affordable to patients (Yes=1; No=0; Don't know =0)

Essential drugs and supplies required in managing psychiatric emergency cases are consistently available (Yes=1; No=0; Don't know =0)

Whether feeling adequately motivated to attend to psychiatric emergences (Yes=1; No=0; Don't know =0)

The hospital management is committed to support provision of quality psychiatric emergencies (Yes=1; No=0; Don't know =0)

There is effective communication within and across departments to facilitate proper management of psychiatric emergencies (Yes=1; No=0; Don't know =0)

The maximum attainable total score was 16 and minimum score was 0. A percentage score was generated and classified as very poor (<25%), poor (25-49%), moderate (50 – 74%), good (≥75%).

Appendix 11: Overall score of process-related factors in the delivery of psychiatric care

The following elements were used to assess the overall score on the process of psychiatric emergency care;

There is an effective triaging of patient in the outpatient department (Yes=1; No=0; Don't know =0)

The SOPs (if available) properly are adhered to when providing psychiatric emergency care (Yes=1; No=0; Don't know =0)

The referral protocol (if available) is adhered to when referring emergency psychiatric patients (Yes=1; No=0; Don't know =0)

The provider-patient interaction with patients presenting with psychiatric emergencies is satisfactory (Yes=1; No=0; Don't know =0)

The patients are presenting with psychiatric emergency cases provided with privacy adequately (Yes=1; No=0; Don't know =0)

The rights of patients are presenting with psychiatric emergency is upheld (Yes=1; No=0; Don't know =0)

Staffs handle psychiatric emergency patients with respect (Yes=1; No=0; Don't know =0)

During treatment of psychiatric emergency patients, is informed consent sought (Yes=1; No=0; Don't know =0)

The waiting time for emergency psychiatric patients is in line with the service delivery charter (Yes=1; No=0; Don't know =0)

There are sufficient provider safety measures when attending to psychiatric emergency patients (Yes=1; No=0; Don't know =0)

Whether feeling safe when attending to a patient presenting with psychiatric emergency (Yes=1; No=0; Don't know =0)

There is monitoring of psychiatric emergency patients who are secluded (Yes=1; No=0; Don't know =0)

There is regular monitoring (Yes=1; No=0; Don't know =0)

There is adequate treatment of emergency psychiatric patients (Yes=1; No=0; Don't know =0)

The psychiatric emergency occurrences are documented (Yes=1; No=0; Don't know =0)

Whether the documentation of occurrences is done consistently (Yes=1; No=0; Don't know =0)

In the occurrence of a psychiatric emergency, is the patients deescalated before restraint? (Yes=1; No=0; Don't know =0)

The maximum attainable total score was 17 and minimum score was 0. A percentage score was generated and classified as very poor (<25%), poor (25-49%), moderate (50 – 74%), good (≥75%).