DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM THE INTENSIVE CARE UNIT TO THE WARD IN MALAWI

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DECLARATION

I, Wyness Tengeneza Mulenga Gondwe, declare that this thesis is my own, unaided work. It is being submitted for a Doctor of Philosophy degree at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

Signed at Johannesburg

On this 10th June, 2022

WITS Human Research Ethics Committee (HREC)-Medical Clearance Protocol No. M160835.

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DEDICATION

I dedicate this work to my family, for their unconditional understanding, support, encouragement and sacrifices throughout this journey.

PUBLICATIONS AND PRESENTATIONS

Presentations

1. Development and pilot testing of a clinical guideline for transition of care of patients recently transferred from Intensive Care Unit to the Ward and their families before, during and after the transfer at one tertiary hospital in Malawi.

   - dissemination of preliminary research findings, QECH, Blantyre, Malawi (Hospital Management and Unit/Department Nursing Managers, 23 July 2019).

2. Development and pilot testing of a clinical guideline for transition of care of patients recently transferred from Intensive Care Unit to the Ward and their families before, during and after the transfer at one tertiary hospital in Malawi.

   - dissemination of preliminary research findings, QECH, Blantyre, Malawi (ICU and wards nurses, 30 July 2019).

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ABSTRACT

Aim and purpose: The study's aim was to develop, and pilot test a clinical guideline for the transition of psychosocial care from ICU to the ward environment at QECH, to inform nursing practice. The purpose was to provide safe and efficient transitional care to patients recently transferred from ICU and their families.

Research methods: The study employed mixed research methods using a pre- and post-test intervention, conducted in three phases: exploratory, development and verification and pilot testing phase.

Data collection: In phase one, semi-structured researcher-administered individual interviews were conducted with patients recently transferred from ICU and their families, multidisciplinary teams, including medical clinicians and nurses, purposively sampled to solicit their expert opinions and/or experiences with transition of care in order to include their views in the clinical guideline to make it effective.

In phase two, data obtained from phase one were analysed using content analysis and presented in narrative form. An integrative review of literature provided evidence-based practice in transitional care. A draft clinical guideline was developed based on the results of phase one and the integrative literature review. The draft clinical guideline was verified by the clinical staff and academic critical care experts, representatives of professional bodies and the Ministry of Health, patients recently transferred from ICU and families to seek and incorporate their opinions and/or experiences with transition of care from ICU to the wards.

In phase three, the split ICU and ward-specific clinical guidelines were pilot tested, and outcomes assessed on patients recently transferred from ICU and their families using the same instruments pre- and post-intervention. The conducting of structured individual researcher-administered interviews, was to assess anxiety as a primary outcome, and satisfaction with care as a secondary outcome. In total, 65 paired patients and families were interviewed pre- and post-intervention. Descriptive and inferential statistics presented demographic data, anxiety levels and degree of satisfaction with care. A comparison conducted between the pre- and post-intervention groups determined the effect of the

intervention on outcome variables. Additionally, post-intervention, one focus group discussion was conducted with the ICU and ward multidisciplinary teams to re-assess their views with regard to the developed clinical guidelines for transition of care from ICU, for their incorporation into the final clinical guidelines.

Results: The qualitative study and the integrative literature review both revealed that patients recently transferred from ICU and their families as recipients of ICU psychosocial care and the multidisciplinary teams from ICU and the wards as providers of the care overall experienced anxiety and dissatisfaction with ICU psychosocial transitional care. The major challenge was communication. Nursing strategies for improving the ICU psychosocial transitional care practice were identified from the two studies which resulted into development of ICU and Ward-specific nursing clinical guidelines each comprising four components with specific recommendation statements for addressing them. These included (1) effective provision of psychological care to patients and families; (2) effective communication among ICU and ward nurses and with patients and families; (3) adequate discharge preparation of patients, families and the receiving wards; and (4) follow up of patients and families in the wards.

The clinical guidelines were pilot tested pre- and post-intervention. The comparison of the results from the two periods, indicated that the intervention significantly reduced the level of anxiety and increased the degree of satisfaction with care both in the ICU and the wards. Descriptive and comparative statistical tests were utilized to analyze the data while employing the Mann-Whitney tests. Testing was done on the 5% level of significance ($p = <0.05$). A Mann-Whitney U test demonstrated that anxiety scores were significantly lower in the post-intervention test group (median=10.5, n=65) compared to the pre-intervention test group (median=30.5, n=65), U =.000, Z = -5.410, p =.000, and W = 210.00. The effect size r=0.67, which indicates medium effect; 0.2=small effect, 0.5=medium effect, and 0.8=larger effect. As a result, the hypothesis was supported.

Additionally, a Mann-Whitney U test revealed that satisfaction of participants in ICU in the post-intervention test group (median =21.36, n = 65) was substantially higher than in the pre-intervention test group (median =7.64, n = 65), with U = 194.0, Z = 4.411, p =.000, and W = 299.0. The effect size is 0.55, indicating a medium effect; 0.2 suggests a little effect,

0.5 indicates a medium effect, and 0.8 shows a high effect. As a result, the hypothesis (H1) was accepted. Similarly in the wards, with U = 52.0, Z = -2.114, p = .03, and W = 157.0, a Mann-Whitney U test revealed that satisfaction was considerably higher in the post-intervention test group (median =11.21, n = 65) than in the pre-intervention test group (median =17.79, n = 65). The effect size is 0.26, which indicates a small effect; 0.2 indicates a small effect; 0.5 indicates a medium effect; and 0.8 indicates a larger effect. As a result, H1 received approval. Furthermore, the transitional care practice by the nurses also improved, which contributed to the patients' and families' positive experiences with the care.

Conclusion: This study employed the transition theory of Meleis *et al.* (2000) to develop nursing clinical practice guidelines for the transition of psychosocial care of patients and families from ICU to the wards, whose positive effects were confirmed post-intervention statistically. The study established that prior to the intervention a gap existed between the transitional care provided at the study site and the ideal transitional care. Patients and families in the post-intervention group had a significantly increased degree of satisfaction with care and experienced lower anxiety levels than in the pre-intervention group. In addition, the transitional care practice by the nurses had improved post-intervention compared to their practice in the pre-intervention period. Concerning the transition theory, these results indicated that pilot testing of the intervention significantly increased the patient's and families' awareness and engagement in the care and facilitated the necessary conditions for the transition, which induced their positive response patterns and subsequently contributed to their positive experiences with care before, during and after ICU transfer. The guidelines were developed with input from various internal and external stakeholders, including ICU patients, their families, the multidisciplinary team involved with ICU transition of care, academic critical care experts, representatives of the professional bodies and the Ministry of Health leading to the belief that the results can be widely applied to other general ICUs.

Place of the study: The clinical site for the study was one general Intensive Care Unit and two gender-specific adult surgical wards at QECH, the largest public tertiary and teaching hospital in Malawi.

Key words: *Clinical guidelines, ICU, Malawi, transition of care, ward*

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ABBREVIATIONS

CCFNI	Critical Care Family Needs Inventory
CCON	Critical Care Outreach Nurse
CCOS	Critical Care Outreach Services
CHAM	Christian Health Association of Malawi
COMREC	College of Medicine Research and Ethics Committee
CRHS	Committee for Research on Human Subjects
HDU	High Dependency unit
HOD	Head of Department
ICU	Intensive Care Unit
LN	Liaison Nurse
MMAT	Mixed Methods Appraisal Tool
MOH	Ministry of Health
NICE	National Institute of Clinical Excellence
NMCM	Nurses and Midwives Council of Malawi
PE	Patient's Transition Experience
PPE	Picker Patient Experience
PRISMA	Preferred Reporting Items for Systematic Reviews
QECH	Queen Elizabeth Central Hospital
SAS	Self-Rating Anxiety Scale
TCP	Transitional care practice

CHAPTER ONE

OVERVIEW OF THE STUDY

1.0 INTRODUCTION

This study intended to develop and pilot test a clinical nursing guideline for transition of psychosocial care from Intensive Care Unit (ICU) to the ward environment at Queen Elizabeth Central Hospital (QECH), the largest tertiary and teaching hospital in Malawi.

The ICU transfer should entail a safe, timely and efficient movement of patients from a high level of care and monitoring ICU environment to a lower level of care in the ward for ensuring continuity of the care (Bunn, 2007; Ward *et al*., 2012). However, the transfer provokes anxiety among patients recently transferred from ICU and their families after a safe interaction in ICU (Bunn, 2007; Carpenito-Moyet, 2008; Chaboyer, James and Kendall, 2005; McKinney and Melby, 2002). The ward nurses often lack knowledge and experience of how to provide ICU psychosocial transitional care (Bunn, 2007; Carter, 2008). The research study interest arose from the researcher's personal interest in what happens to patients recently transferred from ICU and their families beyond the walls of the ICUs. Being a clinical teacher, my experience suggests that patients recently transferred from ICU and their families' transition of care from ICU to the ward environment is compromised due to insufficient clinical guidance with regard to planning for the transition. The compromised transition from ICU creates feelings of anxiety and dissatisfaction with care provided to patients recently transferred from ICU and their families before, during and after ICU transfer.

This chapter presents the background of the study and describes the problem statement, purpose of the study, research objectives, and the significance of the study. It will discuss the researcher's assumptions and present conceptual definitions. A brief overview of the research methodology, trustworthiness, validity and reliability of the study and ethical procedures to be followed will be given, and discussed in detail in Chapter Two.

1.1 BACKGROUND OF THE STUDY

Limited clinical nursing guidelines for improving the transition of psychosocial care from ICU to the ward have been implemented in Australia, Canada, United Kingdom, United States of America, and other developed countries (Chaboyer, James, Kendall , 2005). Most of these are not applicable in developing countries due to differences in context and resource availability. Appropriate guidelines are those developed to suite the disease or situation burdens and resources available in the local practice environment (National Institute for and Health and Clinical Excellence (NICE), 2007b; Scottish Intercollegiate Guidelines Network, 2014). ICU transitional care can be provided by both ICU and ward healthcare professionals (Chaboyer, James and Kendall, 2005).

Transfer of patients from the Intensive Care Unit (ICU) can be exciting as it signals a patient's improvement, however, it can also be a source of anxiety to patients recently transferred from ICU and their families (Carpenito-Moyet, 2008; Chaboyer, James and Kendall, 2005; McKinney and Melby, 2002). Patients from ICU can still be ill and highly dependent both physically and psychologically (Field, Prinjha and Rowan, 2008; Prin and Wunsch, 2014; Russell, 2000). "Sometimes, patients are transferred out of ICU, almost as precipitously as they were admitted" (Chaboyer, James and Kendall, 2005, p.17). The patients recently transferred from ICU and their families anticipate the intensive care and monitoring of patients will continue on the wards (Leith, 1999; Russel, 2000; Whittaker and Ball, 2000) due to the belief that patients are still critically ill (Almerud *et al*., 2007; Coyle, 2001; Leith, 1998).

ICU provides a high level of care, monitoring and resources (Almerud *et al*., 2007; McKinley *et al*., 2002) and one nurse looks after one or two patients to address the complex health needs of patients (Chaboyer, James and Kendall, 2005; Field, Prinjha and Rowan, 2008). In the ward, staffing ratios necessary to provide complex care may be inadequate and staff may also lack knowledge and skills to meet patients' health needs (Carr, 2002; Coyle, 2001; Lykkegaard and Delmar, 2013; McKinney and Melby, 2002) . At QECH sometimes, one nurse could care for 70 patients, the majority of whom were also seriously ill. It becomes hard for patients to adjust to the reduced immediacy of resources and nursing care in the wards (Beard, 2005; McKinney and Deeny, 2002; Odell, 2000). As a result patients and

families feel disconnected from ICU and anxious to leave for the ward environment which has reduced resources (Chaboyer, James and Kendall, 2005; Chick and Meleis, 1986; Leith, 1998; Odell, 2000). Ward nurses have a crucial role in meeting healthcare needs of ICU patients who still require special attention with regard to monitoring and treatment for a safe transition (Field, Prinjha and Rowan, 2008; Prin and Wunsch, 2014).

Effectively minimising anxiety during the transition requires that nurses should be able to identify its causes and take appropriate actions (Coyle, 2001). However, ward nurses experience difficulties in fulfilling this role (Griffiths and Jones, 2002; Haines Crocker and Leducq, 2001; Whittaker and Ball, 2000). Nurses find patients recently transferred from ICU and their families to be too demanding after experiencing a high level of care in ICU (Griffiths and Jones, 2002). Clinical guidelines are one of the foundations for improving healthcare (Garber, 2005; Shekelle *et al*., 2012) and reducing anxiety and other complications associated with the transition from ICU (Chaboyer, James and Kendall, 2005).

Key recommendations for improving transitional care include developing ICU transfer planning practices for improving patients recently transferred from ICU and their families' preparation for ICU transfer, use of ICU liaison nurses (ICU LN) or transfer nurses and step-down units to promote smooth transition to the immediate care units, and use of outpatient follow-up clinics, which focus on transition from hospital to home (Ball, Kirkby and Williams, 2003; Chaboyer, James and Kendall, 2005; Dawson and McEwen, 2005). This study focused on transition of care from ICU to the wards, the immediate care units within the first week of transfer from ICU.

There is limited documentation on clinical guideline for the transition of care from ICU to ward environment for developing countries including Malawi. This is probably because intensive care practice is still undeveloped in developing countries despite the high disease burden from critical illness in these countries (Amoateng-Adjepong, 2006; Dünser, Baelani and Ganbold, 2006; Gundo *et al*., 2014). There was need therefore to develop and pilot test a clinical guideline for transition of care from ICU to the wards to ensure a safe snd efficient transition.

1.2 PROBLEM STATEMENT

No standardised clinical nursing guidelines existed for the transition of care from ICU to the ward at QECH, which questioned the effectiveness of the transition. It was not known if clinical guidelines implemented for improving the transition of care from ICU in developed countries could work for Malawi, a developing country. This gap led to the following research question:

"*Will a clinical nursing guideline for transition of care from ICU to the ward* ***(the intervention)*** *developed with input from patients recently transferred from ICU, families, multidisciplinary team, including medical clinicians and nurses, improve the transition of care at QECH?"*

For comparison purposes of the pre- and post-intervention groups, the study hypothesis was as follows:

Patients recently transferred from ICU and their families in the post-intervention group will experience lower anxiety levels and increased degree of satisfaction with care than those in the pre-intervention group.

1.3 PURPOSE OF THE STUDY

The purpose of the study was to develop and pilot test a clinical nursing guideline for transition of care from ICU to the ward.

The outcomes to be assessed were patients recently transferred from ICU and their families' (n = 65) levels of anxiety as a primary outcome, and degree of satisfaction with care received during the transition as a secondary outcome using the same instruments pre- and post-intervention.

1.4 RESEARCH OBJECTIVES

The objectives of the study were:

i. To explore patients recently transferred from ICU and their families' perspectives on the transition of care from ICU to the ward
ii. To explore medical clinicians and nurses' perspectives in transition of care from ICU to the ward
iii. To verify findings obtained from patients recently transferred from ICU and their families, medical clinicians and nurses' perspectives
iv. To develop a clinical nursing guideline for transition of care from ICU to the ward
v. To pilot test a clinical nursing guideline for transition of care from ICU to the ward

1.5 SIGNIFICANCE OF THE STUDY

The purpose of the clinical guidelines is to provide safe and efficient transitional care to patients recently transferred from ICU and their families, according to available resources and the practice context. The limited available clinical nursing guidelines on transition of care from ICU to the ward environment are from developed countries, which make it difficult to wholly apply in developing countries, such as Malawi, due to differences in the critical care status quo (Amoateng-Adjepong, 2006; Dünser, Baelani and Ganbold, 2006; Gundo *et al*., 2014). Clinical guidelines should be tailor-made to suit the local practice environment (NICE, 2007b; Scottish Intercollegiate Guidelines Network, 2014). This study aimed to put in place a clinical nursing guideline for transition of care from ICU to the ward environment from a developing country's perspective, in order to bridge the gap between knowledge and practice. Nurses, as the most visible healthcare professionals, work closely with the patients recently transferred from ICU and their families during the transition from ICU (Häggström, Asplund and Kristiansen, 2012).

The use of an intervention approach was to put in place a clinical guideline, which could improve the transition of care for patients recently transferred from ICU and their families in the ward. This could help to reduce patients recently transferred from ICU and their

families' feelings of anxiety, and increase their satisfaction with transitional care received before, during and after ICU transfer.

1.6 PARADIGMATIC ASSUMPTIONS

A paradigm is a "worldview that underlies and informs methodology and methods" (Corbin and Strauss, 2008, P.1). It is "a comprehensive belief system or worldview that provides a general perspective or framework to guide an understanding of the phenomenon under investigation" (Tavakol and Sandars, 2014, p.747). Research needs positioning within a paradigm to guide the direction of the study. The paradigmatic assumptions to be followed in this study include the meta-theoretical, theoretical, and methodological assumptions.

1.6.1 Meta-theoretical Assumptions

Meta-theoretical assumptions are statements or principles not intended to be tested in the study, but are believed to be true (Burns, Grove and Gray, 2011). In this study, the meta-theoretical assumptions for the discipline of nursing, comprises the person, environment, nursing, health and illness applied specifically to the transition from ICU to the ward.

1.6.1.1 Person

The person refers to an individual, families, communities, healthcare professionals and other groups who participate in nursing (Fawcett, 2005). In this study, the person, as an open system, interacts within the ICU and ward environments. The transition from ICU to the ward environment may create negative feelings such as fear, anxiety and may cause stress in patients recently transferred from ICU and their families (Carpenito-Moyet, 2008; Chaboyer, James and Kendall, 2005). The healthcare professionals in the ICU and ward environments have a crucial role in facilitating a safe transition (Field, Prinjha and Rowan, 2008; Prin and Wunsch, 2014). Minimising anxiety during ICU transition depends on the ability of the healthcare professionals, specifically the nurses to recognise and react positively to factors that adversely affect the patients recently transferred from ICU and their families (Coyle, 2001; Häggström, Asplund and Kristiansen, 2012).

1.6.1.2 Environment

The environment refers to the human being's significant others and physical surroundings, including cultural, social, political and economic conditions associated with their health (Fawcett, 2005). It is comprised of the internal and external worlds of the person, which need to be in balance. When an imbalance exists, patients recently transferred from ICU and their families fail to cope with the transition. In the wards, nurses experience difficulties in meeting the patients recently transferred from ICU and their families' care demands, basically because they fail to appreciate their needs, subsequently failing to provide the necessary transitional care to meet the demands thereby creating an imbalance (Carter, 2008; Griffiths & Jones, 2002).

1.6.1.3 Nursing

Nursing is concerned with caring actions carried out by the nurses on behalf of or in conjunction with the human beings (Fawcett, 2005). Nurses, the most visible of all the healthcare professionals, work closely with the patients recently transferred from ICU and their families (Häggström, Asplund and Kristiansen, 2012) with the aim of addressing their physical and psychosocial needs in healthcare settings. In this study, nursing is concerned with facilitating healthy psychosocial responses of patients recently transferred from ICU and their families' interactions with the environment during the transition from ICU in order to reduce feelings of anxiety and increase their satisfaction with transitional care.

1.6.1.4 Health and illness

Health is the human process of living and dying (Fawcett, 2005). It is when the body, mind and spirit are in a state of stability, characterised by a balance between systems achieving optimal biopsychosocial functioning of the individual (Williams *et al*., 2008). Conversely, the lack of a state of stability results in illness of the person due to disorganisation of the biopsychosocial systems (Williams *et al*., 2008). Patients recently transferred from ICU and their families are highly dependent on healthcare professionals to meet their health needs and ensure a state of stability during the transition period. Although transfer from ICU to the ward is a positive development, it can also provoke anxiety among patients recently

transferred from ICU and their families due to the high acuity of their illnesses or injuries (Bunn, 2007). The use of clinical guidelines can help to promote healthy transitions thereby reducing anxiety, other health complications and promote good health .

1.6.2 Theoretical Assumptions

Theoretical assumptions are a point of departure in the study and include theories and concepts. This study is guided by the theoretical assumptions from Meleis' middle range theory of transitions to relate patients recently transferred from ICU and their families' transitions from ICU to ward environment (Meleis *et al*., 2000). The emphasis of this theory is that transition is "a passage from one life phase, condition, or status to another, embracing the process, time span, and perception" (Meleis, 2010). Transition therefore refers to "both the process and the outcome" of complex person-environment interactions (Chick and Meleis, 1986, p.239). According to Meleis' middle range theory of transitions, the process comprises the nature, that is, types, patterns and properties, conditions that facilitate and inhibit the transitional progress and patterns of response, such as process and outcome indicators (Meleis *et al*., 2000). Presented below are the key component dimensions of the Meleis' middle range theory of transitions.

- **Types and patterns of transitions**

Patients recently transferred from ICU and their families experience transitions, which are health and illness related, situational and organisational in origin (Ramsay *et al*., 2014). These include, "the transition from the highly specialist, technical and individualised care in ICU to a more general care; a sense of security within the familiar ICU environment to one of vulnerability and unpredictability; survival to recovery; and from 'learned helplessness' to independence" (McKinney and Deeny, 2002, p.236).

- **Transitional properties**

These are described in terms of:

- Awareness: perception, knowledge and recognition of a transition experience
- Engagement: the degree to which the individual demonstrates involvement in the process, for example by actively seeking information, actively preparing and proactively modifying activities
- Change and difference: the nature of change; its temporal processes; perceived importance; and personal, familial and societal norms and expectations
- Time span: perceived temporality
- Critical points and events: turning points associated with increasing awareness or more active engagement in the transition process (Meleis *et al*., 2000)

- **Conditions that facilitate and inhibit the transitional progress**

These are factors that facilitate or inhibit healthy transitions that include personal conditions, such as meaning, expectations, cultural beliefs and attitudes, community conditions such as social support or access to relevant information, and societal conditions such as a sense of stigmatisation or marginalisation (Meleis *et al*., 2000; Schumacher and Meleis, 1994).

- **Process indicators**

These are patterns of response that either facilitate a healthy transitional experience or expose individuals to vulnerability or risk. They comprise of feeling connected, interacting, location and being situated, developing confidence and coping (Ramsay *et al*., 2014). The majority of patients recently transferred from ICU and their families experience a sense of isolation and vulnerability in relation to the reduced immediacy of care (Beard, 2005; McKinney and Deeny, 2002; Odell, 2000). The process outcomes in this study include patients recently transferred from ICU and their families' anxiety levels and degree of satisfaction with care before, during and after transfer from ICU.

- **Outcome indicators**

The indicators comprise the mastery of new skills and the development of an integrative identity. In the later stages of ward care, patients recently transferred from ICU and their families negotiate their independence in the face of altered bodily states, unprecedented dependence and limited supportive resources (Ramsay *et al*., 2014).

- **Nursing therapeutics**

Nursing therapeutics assist healthcare professionals, especially nurses, to facilitate healthy transitional responses among patients recently transferred from ICU and their families thereby reducing experiences of stress related to the transition to the ward environment (Ramsay *et al*., 2014). Nurses should engage with and educate the highly dependent patients recently transferred from ICU and their families with patience and forbearance as they struggle to recover (Carr, 2002). It is important for nurses to note that "the dependence is not all psychological but may have its roots in physical weakness" (Carr, 2002, p.73). Specific nursing therapeutics are necessary to facilitate a healthy transition process (Meleis, 2010).

Meleis' theory of transition proposes that the type of the transition can facilitate or hinder the pattern of response for people (Meleis, 2010). Patterns and properties of the ICU transfer transition, such as reason for admission, length of stay, previous experience with transition from ICU, along with other demographic characteristics of patients recently transferred from ICU and their families may significantly influence their interactions with the environment during, before and after transfer from ICU.

The main theoretical statement is that both the process and the outcome of the transition of patients recently transferred from ICU and their families is dependent on the nursing therapeutics in both settings. Nursing staff, by virtue of their 'thereness' (Chick and Meleis, 1986, p. 247) and continuity, are ideally situated to facilitate the patients recently transferred from ICU and their families' transition beyond the walls of ICU.

1.6.2.1 Operational definitions

The definitions below illustrate the way the terms were used in the context of this study.

- **Intensive Care Unit**

Refers to "an organized system for the provision of care to critically ill patients that provides intensive and specialized medical and nursing care, an enhanced capacity for monitoring, and multiple modalities of physiologic organ support to sustain life during a period of acute organ system insufficiency. Although an ICU is based in a defined geographic area of a hospital, its activities often extend beyond the walls of the physical space to include the emergency department, hospital ward, and follow-up clinic" (Marshall *et al*., 2017, p.274).

In this study, it refers to a general ICU, which provided intensive care, advanced monitoring and support to adult and paediatric patients with life-threatening conditions and staffed with multidisciplinary teams experienced in critical care (Eddleston, Goldhill and Morris, 2009).

- **Ward**

This is a division of rooms within a hospital used for accommodating and caring for patients who have same conditions (Stedman, 2012).

In this study wards referred to two gender specific sections of QECH that admitted adult surgical patients recently transferred from ICU which also accommodated their families before, during and after ICU transfer.

- **Patients recently transferred from ICU**

Refers to adult patients transferred from ICU and transferred to the male and female adult surgical wards due to a decrease in ICU care demands and able to communicate verbally. A recent transfer for the ICU patients was within the 3 to 5 days of patients' transfer from ICU to the ward (Endacott *et al*., 2010). Patients recently transferred from ICU are usually vulnerable and at risk from their complex care needs (NICE, 2007b) as the ward staff may

lack appropriate knowledge or skills to care for such group of patients (Chaboyer, James and Kendall, 2005).

- **Families**

Families of are a group of people related by blood or marriage or a strong common bond, such as those descended from a common ancestor in a lineage or a husband, wife, and their children (Stedman, 2012). Family can also be held together by common residence or close emotional attachment (Population Reference Bureau, 2000).

In this study, families who were commonly referred to as guardians, were both blood and non-blood related representatives of the family members looking after the patients before and during and after transfer from ICU to the ward (Endacott *et al*., 2010).

The word "guardians" is largely used in this study to refer to representatives of the family members' responsibility of looking after their sick relatives during their hospital stay. This is an accepted and expected "role" of families in the healthcare system in Malawi where one or two family members depending on severity of the illness, stay by the patients' bedside or within close vicinity to the patients in order to participate in patient care and decision making regarding the care.

- **Multidisciplinary team**

Refers to a team of professionals including representatives of different disciplines who coordinate the contributions of each profession, which are not considered to overlap, in order to improve patient care. These may include doctors, nurses, psychologists and occupational therapists (Stedman, 2012).

In this study, multidisciplinary team referred to medical clinicians and nurses from ICU and the wards who participated in the provision of ICU transitional care as providers or supervisors of the care. The medical clinicians included the doctors, clinical officers, and anaesthetists, while the nurses included both the registered and enrolled nurses.

- **Transition**

Transition – " a passage from one life phase, condition or status to another" (Chick and Meleis, 1986, p.238); or "periods in between fairly stable states" (Chick and Meleis, 1986, p.238); processes that occur over time, which can be divided "into stages and phases" (Schumacher and Meleis, 1994, p.121) and "both the process and the outcome of complex person environment interactions" (Chick & Meleis , 1986, p. 240).

In this study, transition referred to the processes and outcomes of the interactions of the patients recently transferred from ICU and their families with ICU and adults surgical ward environments before, during and after ICU transfer. The outcomes of the interactions in this study included the level of anxiety and the degree of satisfaction with care during the pre and the post-intervention tests.

- **ICU Transitional care**

This is a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location. Transitional care which encompasses both the sending and the receiving aspects of the transfer (Coleman and Boult, 2003) is "care provided before, during, and after the transfer of an ICU patient to another care unit that aims to ensure minimal disruption and optimal continuity of care for the patient. This care may be provided by ICU nurses, acute care nurses, physicians, and healthcare professionals" (Chaboyer, James and Kendall, 2005, p.16).

In this study, transitional care referred to independent, dependent and interdependent care that ICU and ward nurses provided to patients recently transferred from ICU and their families before, during and after ICU transfer to prepare them for the ward experiences for a better coping with the changes (Chaboyer, James and Kendall, 2005).

- **Clinical Nursing Guidelines**

Clinical nursing guidelines – are statements that describe general recommended courses of intervention for consideration by the health care providers when making decisions about appropriate care for specific clinical circumstances to optimize patient care (Institute of Medicine, 1990). The statements are informed by systematic review of evidence and an assessment of the benefits and harms of alternative care options (Ball, 2007; Manchikanti *et al*., 2013).

In this study, clinical nursing guideline referred to recommendation statements and their explanations that were developed based on conclusions drawn from findings of the qualitative study with input from the medical professionals (Phase1: steps 1-3) and integrative literature review (Phase 2: step 4). The intention was to guide ICU and surgical ward nurses in the provision of ICU transitional care to patients recently transferred from ICU and their families before, during and after ICU transfer during pilot testing phase of the study.

- **Anxiety**

According to Seligman, Rosenhan, and Walker (2001), anxiety comprise cognitive, somatic, emotional, and behavioral components. Cognitively, feelings of uncertainty and danger sets in. To fight this danger, the body responds by increasing the blood pressure, heart rate, sweating and blood flow to the major muscle groups while inhibiting the immune and digestive systems. The person may display pale skin, sweating, trembling and pupillary dilation somatically; panic emotionally and nausea and chills physically. Behaviorally, person may avoid the source of anxiety. In this study, anxiety referred to ICU patients recently transferred from ICU and their families' feelings of fear, uneasiness and worry about their uncertain situations (Bouras and Holt, 2007) and experiencing various physical discomforts such as headache, restlessness and tiredness (American Psychiatric Association, 2013).

In this study anxiety levels was measured using the 20-item Zung Self-Rating Anxiety Scale (SAS) (Zung, 1971) in the pilot testing phase of the study.

In this study, the same instrument will be used in the pre-and post-intervention tests and will be administered to patients and their family members as paired dyads in phase 3 of the study.

- **Satisfaction with care**

Refer to a measure of the extent to which a patient is pleased or feels happy with the care which s/he received from health care providers (Pulia, 2011). Satisfaction is determined by whether or not certain processes and events occurred during a course a specific episode of care (Jenkinson, Coulter and Bruster, 2002). In this study, satisfaction with care referred to the extent to which patients recently transferred from ICU and their families were happy with their experiences before, during and after ICU transfer.

In this study satisfaction with transitional care in the ICU was measured using a 14-item shortened version of the Critical Care Family Needs Inventory (CCFNI) (Johnson et al., 1998), whereas satisfaction with transitional care in the ward was measured using the 15-item Picker Patient Experiences Questionnaire (PPE) (Jenkinson, Coulter & Bruster, 2002) in the pilot testing phase of the study. Further, the same instruments will be used in the pre- and post-intervention tests and will be administered to patients and their family members as paired dyads in phase 3 of the study.

1.6.3 Methodological Assumptions

Research is a systematic scientific investigation to gain new knowledge that can be added to a body of existing knowledge in order to develop new insights and create more useful knowledge to solve the problem (Tavakol and Sandars, 2014, p.247). Methodological assumptions are the researcher's beliefs about the research process to be followed in the study. The methodological assumptions for this study are mixed methods using a pre- and post-test intervention. The researcher's assumption was that integration of qualitative and quantitative approaches within the same study complement each other to generate the best

supportive evidence to draw conclusions and make decisions about better practice of transitional care (Greene and Caracelli, 2003).

By conducting a pre- and post-test intervention, changes that took place in the study were measured as outcomes, which in this study included anxiety levels in patients recently transferred from ICU and their families and the degree of satisfaction with care pre- and post-intervention (Dimitrov and Rumrill, 2003). In addition, the assessment of the changes in the practice of transitional care by nurses post-intervention were to inform development of a clinical practice guideline.

1.7 OVERVIEW OF RESEARCH METHODOLOGY

1.7.1 Research Design

The research design was exploratory, descriptive, and comparative. Both qualitative and quantitative methods addressed the research question. The study was exploratory and qualitative during phase one, as the researcher intended to solicit expert opinions and/or experiences with transition of care from patients recently transferred from ICU and their families and healthcare professionals, and explore evidence from literature during phase two to guide the development of the clinical guideline to make it effective.

The study was descriptive, as the researcher intended to develop deeper insights into the transition of care by using points of view of patients recently transferred from ICU and their families, and healthcare professionals and the evidence from literature. The describing in detail of the opinions and/or experiences or views were for better understanding, in order to use them in development of the clinical guideline. The study applied three phases: exploratory, development and verification and pilot testing phase.

Phase one involved soliciting expert opinions and/or experiences with transition of care; Phase two involved analysis of data obtained from phase one, conducting an integrative review of literature for evidence to be used for the development of the clinical guideline; Phase three involved pilot testing the clinical guideline while assessing levels of anxiety and degree of satisfaction with care received as outcomes, and conducting a post-intervention

focus group discussion with ICU and ward multidisciplinary teams to re-assess their views regarding the developed clinical guideline on transition of care from ICU**.**

The development of the clinical guideline followed standard processes as stipulated by recognised bodies, the NICE and SIGN. This was to systematically structure the research design and methods to develop and pilot test a clinical guideline (Aziato and Adejumo, 2015), and involved establishing the scope or parameters of the guideline, specifying the limits of the guideline, the objective, the target patient group and the specific procedure or patient care activity.

The study was comparative as it examined differences in the levels of anxiety and satisfaction with transitional care among patients recently transferred from ICU and their families. This component of the study applies principles of quantitative approaches to measure outcomes pre- and post-intervention.

1.7.2 Research Methods

The process for the development and pilot testing of the clinical nursing guideline comprised three phases, divided into several steps within the study. Phase one, the exploratory phase, involved two steps **(steps 1 to 2).** *Step 1* involved conducting individual interviews among recently transferred ICU patients and/or their families regarding their experiences with transition of care. *Step 2* involved individual interviews with healthcare professionals in ICU and surgical wards as experts and key informants. Purposive sampling was performed, and data was collected until saturation was achieved in the two steps. Both interviews were conducted with the aim of soliciting the participants' expert opinions and/or experiences from perspectives of the receivers, as well as the providers of transitional care, in order to include their views in the clinical guideline to make it effective.

Phase two involved the development and verification of the clinical guideline and comprised five steps **(steps 3 to 7).** *Step 3* involved analysing data obtained from phase 1 using content analysis by organising data, open coding, creating categories and abstractions and presenting results in tabular form with major themes and sub-themes (Elo and Kyngäs, 2008). *Step 4* involved conducting an integrative review of literature for documented evidence on

transition of care from ICU. *Step 5* involved drafting the guideline by listing recommendations and their explanations based on results from phase 1 and the integrative literature review. *Step 6* involved verification of the drafted guideline by local stakeholders including recently ICU transferred patients and families and practicing healthcare professionals to seek and incorporate their expert opinions and/or experiences with transition of care from ICU, as each of these members may have different views. *Step 7* involved revision and refinement of the clinical guideline based on comments from stakeholders.

Phase three involved pilot testing of the developed clinical guideline and had 4 steps **(steps 8 to 11).** *Step 8* involved pilot testing the developed clinical guideline on a sample of 65 recently transferred ICU patients and families. Purposive sampling method was utilised. Data was collected using dyad (paired) structured interviews with recently transferred ICU patients and families to measure anxiety levels (primary outcome) and degree of satisfaction with care (secondary outcome) pre- and post-intervention. *Step 9* involved conducting a post-intervention focus group discussion with ICU and ward multidisciplinary team. *Step 10* involved conducting descriptive analysis of data collected during pilot testing in phase three, thus concluding the study. *Step 11* involved refining the guideline based on observations from the focus group discussion.

Figure 1.1 provides an overview of the methodology of the study, the details of which will be described in Chapter Two.

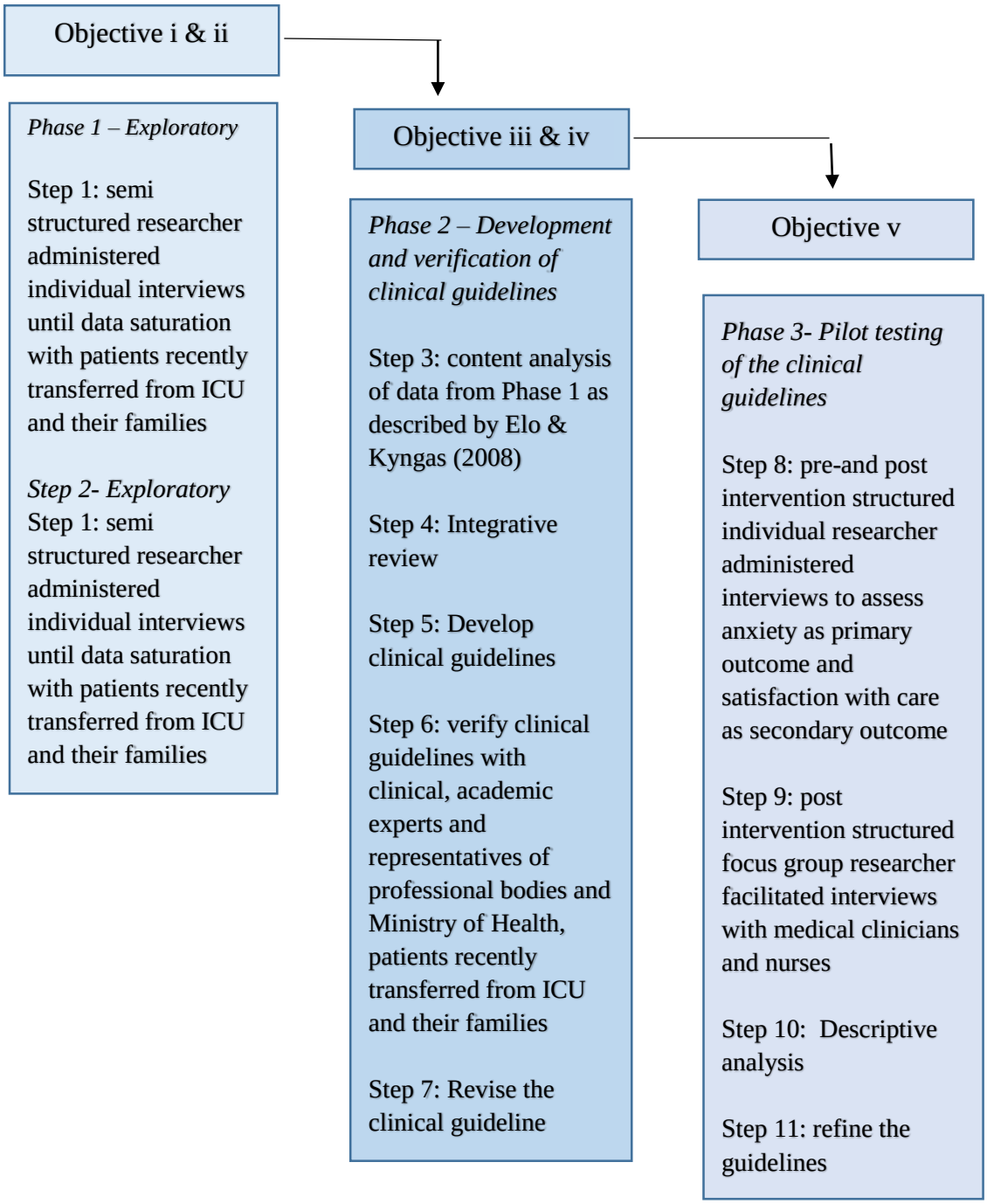

Figure 1.1: Overview of the methodology of the study

1.8 TRUSTWORTHINESS, VALIDITY AND RELIABILITY OF THE STUDY

An overview of trustworthiness, validity, and reliability, as applied in this study, is provided with their details discussed in Chapter Two. Described below are the measures to ensure trustworthiness, validity and reliability of the individual interviews, the integrative literature review and during the post-intervention focus group discussions.

Validity and trustworthiness of the qualitative component of the study were applied in individual interviews with patients recently transferred from ICU and their families and healthcare professionals in ICU and the surgical wards, and a focus group discussion with healthcare professionals in the ICU and surgical wards. The application of credibility, dependability, transferability, and confirmability were to ensure trustworthiness or confidence in the collected data (Polit and Beck, 2004).

Also applied were validity and reliability of the quantitative component of the study. Data collection tools developed from established instruments developed and tested on adult patients in ICUs and validated by clinical experts and academicians including the supervisor, ensured validity. The basis of the clinical guideline development was evidence from patients recently transferred from ICU and their families, healthcare professionals and the literature. The literature search used all major search engines within the University Library database, which included PUBMED, EBSCOHOST, CINAHL and SCOPUS. Hand searching of all journals and unpublished research (thesis) was taken into consideration and covered a planned period of 10 years (2005 to 2016) but extended to January 2018 for current literature).

The researcher consistently and accurately recording data throughout the study to maintain reliability.

1.9 ETHICAL CONSIDERATIONS

Chapter Two provides an overview and discussion of the ethical considerations. Written permission to conduct the study was obtained from the Human Research Ethics Committee (HREC) for Medical subjects of the University of the Witwatersrand and the College of Medicine Research and Ethics Committee (COMREC) of the University of Malawi, the Hospital Director and Head of Department (HOD) of Anaesthesia and Intensive Care Department at QECH, followed by verbal permission from ICU and surgical unit matrons, neurosurgical, academic and clinical surgical consultants, and ICU and surgical ward nurses in charge. Participants gave informed consent for the conducting and audiotaping of the interviews. Participants' right to informed consent, confidentiality and anonymity were maintained, and voluntary participation ensured. The use of numbers instead of personal names for identification ensured anonymity, and participants could withdraw anytime without a penalty.

1.10 STUDY SETTING

The study was conducted in Blantyre, the second largest city located in the southern region of Malawi. In 2017 when the study started, Blantyre had an estimated population of 584,077 people out of the estimated total population of 17.4 million people (National Statistics Office, 2019). Malawi is a landlocked country sharing borders with Zambia in the west, Mozambique in the east, south and southwest, and Tanzania in the north. Administratively, the country is divided into three geographic regions namely northern, central and southern regions and 28 districts. Its economy largely depends on agriculture, Ministry of Health, 2011.

The health care services in Malawi are provided by three sectors namely: the public, private for profit (PFP) which includes traditional healers and private not for profit (PNFP) consisting of religious institutions, non-governmental organizations (NGOs), statutory corporations and companies (Government of the Republic of Malawi, 2017). Christian Health Association of Malawi (CHAM) is an umbrella body under which most religious health facilities operate to provide approximately 29% of the health care services in the

country (Government of the Republic of Malawi, 2017; Malawi Ministry of Health and ICF International, 2014).

The public sector includes all health facilities under the Ministry of Health (MOH) and other state-owned facilities/organizations such as district, town and city councils as well as Ministries of Defense and internal security (Government of the Republic of Malawi, 2017; Malawi Ministry of Health and ICF International, 2014). The public sector provides free health care services while both the PFP and PNFP charge user fees to cover operational costs (Government of the Republic of Malawi, 2017; Ministry of Health, 2011). However, government, through the MOH has service level agreements with various PNFP facilities to enable them provide subsidized essential services to over 80% of the country's total population that lives in the rural areas where these facilities are mostly located (Government of the Republic of Malawi, 2017).

The public sector is categorized into four levels namely community, primary, secondary and tertiary levels linked to each other through a referral system. The tertiary level consists of four central hospitals (CHs) that provide specialized health care in their respective regions on referral basis. Central hospitals also provide professional health care training, conduct research and provide support to district hospitals and have links with many health care training colleges. The general essential services are largely provided by the lower level facilities (Government of the Republic of Malawi, 2017; Ministry of Health, 2011).

Specifically, the study was conducted in ICU and adult surgical wards of Queen Elizabeth Central Hospital (QECH), the largest CH in Malawi. QECH has a bed space of 1250 beds. The hospital had one 4 bedded general ICU which provided intensive care and monitoring to paediatric and adult patients. The hospital had two gender specific adult surgical wards: one for male and the other for female patients. Both wards had resources for managing critically ill patients including those who were transferred from ICU in the ward staff establishment.

QECH was chosen as a study setting because the researcher works for one leading University College of Nursing in Malawi, which uses the facility as a clinical site for training students. Additionally, being the largest teaching and referral hospital in Malawi, QECH had the

desired population of the study participants which included ICU and ward multidisciplinary teams, patients recently transferred from ICU and their families. The adult surgical wards were specifically chosen as cites for the study because surgical conditions were the main reason for ICU admissions in Malawi in general (Varela *et al*., 2017) and at QECH specifically.

Figure 1.2 displays the map of Malawi showing Blantyre city, where QECH is located.

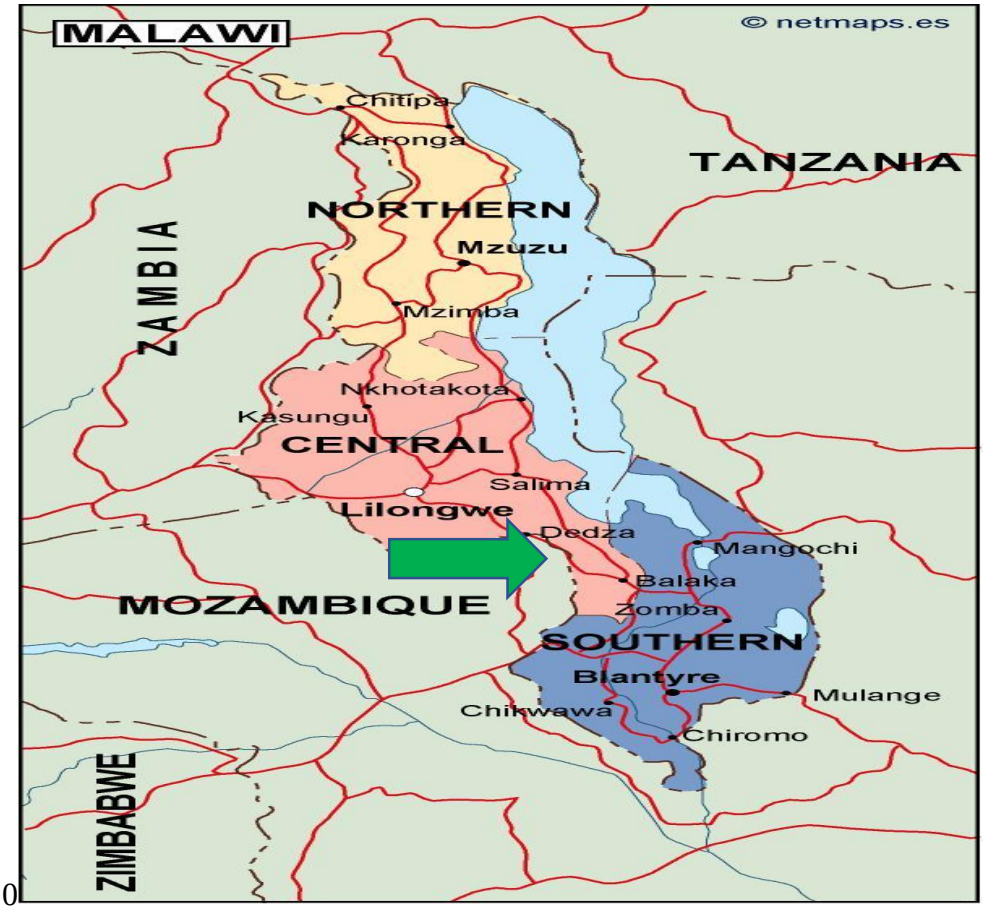

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Figure 1.2: Map of Malawi locating the city of Blantyre

Source: **http://www.netmaps.es/wp-content/uploads/2015/04/malawi-political-map.jpg-internet-explorer**

1.11 OUTLINE OF THE THESIS

The research was in three phases, as outlined in **Figure 1.1**. The implementation of the plan will follow the following chapter layout:

Chapter One:	Overview of the study
Chapter Two:	Research design and methods
Chapter Three:	Results of qualitative study
Chapter Four:	Results of integrative literature review
Chapter Five:	Development and verification of the clinical nursing guideline
Chapter Six:	Results of the pilot testing phase
Chapter Seven:	Summary of findings, strengths and limitations, recommendations and conclusions

1.12 SUMMARY

This chapter has provided an overview of the study, and presented the background, research problem and question, purpose, objectives and significance. It discussed the researcher's assumptions and presented an overview of the research methodology, trustworthiness, validity and reliability of the study and ethical considerations pertaining to the study.

The next chapter describes the research design and methods in detail.

CHAPTER TWO

RESEARCH DESIGN AND METHODS

2.1 INTRODUCTION

This chapter describes the research design and methods used to develop and pilot test the clinical guidelines. It involves target population, sample and sampling method, data collection process and methods of data analysis. The chapter has three parts. The first part discusses the research designs employed in the study, the second part discusses the methods used to collect data in order to address the research objectives, and the third section discusses the conducting of the phases.

2.2 RESEARCH DESIGN

This study employed both qualitative and quantitative research designs, using a pre- and post-test nursing intervention to develop the clinical nursing guideline. A research design refers to the procedures of enquiry (Creswell, 2014), and it is the overall plan for answering research questions.

2.2.1 Qualitative Research Design

Qualitative research design is an approach for exploring and understanding the meanings or perceptions of individuals or groups experiencing a social or human problem (Creswell, 2014). It is an enquiry focusing on the way people make sense of experiences and the world in which they live (Holloway and Galvin, 2016). In the present study, a descriptive exploratory qualitative research design explored patients recently transferred from ICU, their families, medical clinicians and nurses' perspectives in the transition of care from ICU to the ward, and their opinions on possible improvements for the care. The findings from this research will inform the development of the clinical guideline for the Malawian context.

Descriptive qualitative research is an approach used to gain more information about characteristics within a particular field, exploring and describing situations as they naturally

occur and exist in the world (Burns, Grove and Gray, 2011). It gives a summary of everyday, factual language that facilitates understanding of the selected phenomenon (Colorafi and Evans, 2016). The qualitative part of this study was descriptive as it provided an in-depth description of the participants' experiences with transitional care from ICU to the ward, with the researcher penetrating the data to interpret it. This helped the researcher to gain insight and understanding of their experiences with ICU transitional care, as the knowledge generated from qualitative research provides meaning and understanding of specific life experiences of people (Burns, Grove and Gray, 2011).

The study had three phases, and the qualitative study belonged to first phase, thus the exploratory phase. The exploratory phase had two steps: step one was on individual interviews with patients recently transferred from ICU and their families while step two was on individual interviews with the ward and ICU multidisciplinary teams, including medical clinicians and nurses. This phase addressed the first and second objectives. The specific phase of the study presents the details of the qualitative approach and its employment.

2.2.2 Development and Verification of the Guideline

Clinical guidelines are recommendation statements and their rationales that are developed based on evidence documented in the literature with an intention to optimise patient care (Institute of Medicine, 2011), influencing health policy formation (Browman, Snider and Ellis, 2003). Their bases are evidence-based practices available relating to specific aspects of clinical practice in an effort to distil a large body of that evidence into a more concise and manageable form (Polit and Beck, 2008). The development and verification of the guideline was the second phase of the study. It had five steps, which were content analysis of qualitative data, conducting the integrative literature review, developing the guideline based on qualitative data and evidence from literature review, verifying it with stakeholders, and revising the guideline. This phase addressed the third and fourth objectives. Phase two presents the details of how the guideline was developed and verified.

2.2.3 Quantitative Research Design

Quantitative research design is an overall plan for obtaining answers to the research questions under study, and how to handle difficulties encountered during the process (Polit and Beck, 2010). It describes how the researcher conducted the study to maximise control over factors that could interfere with the study's desired outcomes (Burns, Grove and Gray, 2011). Quantitative design indicates whether there is an intervention, any comparisons, control of variables, blinding, timing and location of data collection (Polit and Beck, 2010).

Phase three of the study used quantitative research design, which involved pilot testing of the clinical guideline. It assessed the effectiveness of the intervention post its implementation. Details of how the quantitative method was employed are discussed under the specific phase of the study.

2.2.4 The Pre- and Post-intervention

"Intervention study examines the effect of an independent or intervention on a dependent variable or outcome" (Grove, Gray and Burns, 2015, p. 38). Nursing interventions are independent or collaborative, direct or indirect deliberate, cognitive, physical or verbal activities that the nurse performs with or on behalf of patients and families, to enhance therapeutic outcomes (Bulechek *et al*., 2013).

In an intervention study, a research design is a process of specifying who will receive the intervention and the observation of outcomes; it indicates when an intervention will occur and the period in which it will be provided (Fraser *et al*., 2009). A pre- and post-test design compares the changes in groups and/or measures that take place following an experiment or an intervention to some participants while withholding it from others (Dimitrov and Rumrill, 2003). It involves observing changes or outcomes that occur at two different points in time before and after the intervention (Polit and Beck, 2010). This study measured outcomes: anxiety level of patients and families recently transferred ICU and their degree of satisfaction with care pre- and post-intervention. Also assessed were the changes in the practice of transitional care by nurses post-intervention. This phase addressed the fifth objective. The

discussion of the employment of the pre- and post-intervention study are under the specific phase of the study.

2.3 RESEARCH METHODS

Research methods involve the method of data collection, analysis and interpretation (Creswell, 2014) that a researcher chooses to use guided by the chosen research design (Gray, Grove and Sutherland, 2017).

2.3.1 Study Setting

As already stated (Chapter One, item 1.11 on page 19), the clinical site for the study was one general ICU and two adult surgical wards at QECH, the largest tertiary and teaching hospital in Malawi.

2.3.2 Study Population

The population included patients recently transferred from ICU and their families and the multidisciplinary team, including medical clinicians and nurses working in ICU and adult surgical wards at QECH.

2.3.3 Study Period

The conducting of the study took 52months, from June 2016 to September 2020. Proposal writing and the obtaining of ethical clearance occurred between June 2016 and January 2017. The exploratory phase took place between February and November of 2017.

2.3.4 Sampling and Sample Size

Purposive sampling was used to select study participants in phase one (exploratory) of the study. A purposive sampling, also referred to as judgmental sampling, is a non-probability sampling method based on the judgment of the researcher to pick participants who are knowledgeable about the phenomenon (Brink, Van der Walt and Van Rensburg, 2018; Burns

and Grove, 2005). The researcher uses prior knowledge of participants' experiences regarding the topic under study when selecting them (Burns and Grove, 2009). The choice of this method was because the researcher wanted a sample of experts and key informants, with experience in transitional care. In phase three, data was collected from a sample size of 65 (n = 65) in the pre- and post-intervention tests. Thabane, Ma, Chu *et al.* (2010) state that pilot studies, amongst other things, can be used to assess treatment or intervention. The authors also stated there is no need for a sample size calculation in a pilot study. (Cohen (1992) however stated that to achieve power (confidence level) for a pilot study, when expecting a medium effect in an intervention study, a sample size of 64 (n=64) is adequate. For the purposes of this study however, 65 (n= 65) recently transferred ICU patients and their families were included in the sample for the pilot study.

Data collection and analysis occurred concurrently as the study was progressing from phase one through phase three. Details of the data collection methods and data analysis for each phase are under the specific phases of the study.

Figure 2.1 presents an overview of the methodology of the study for purposes of consistency.

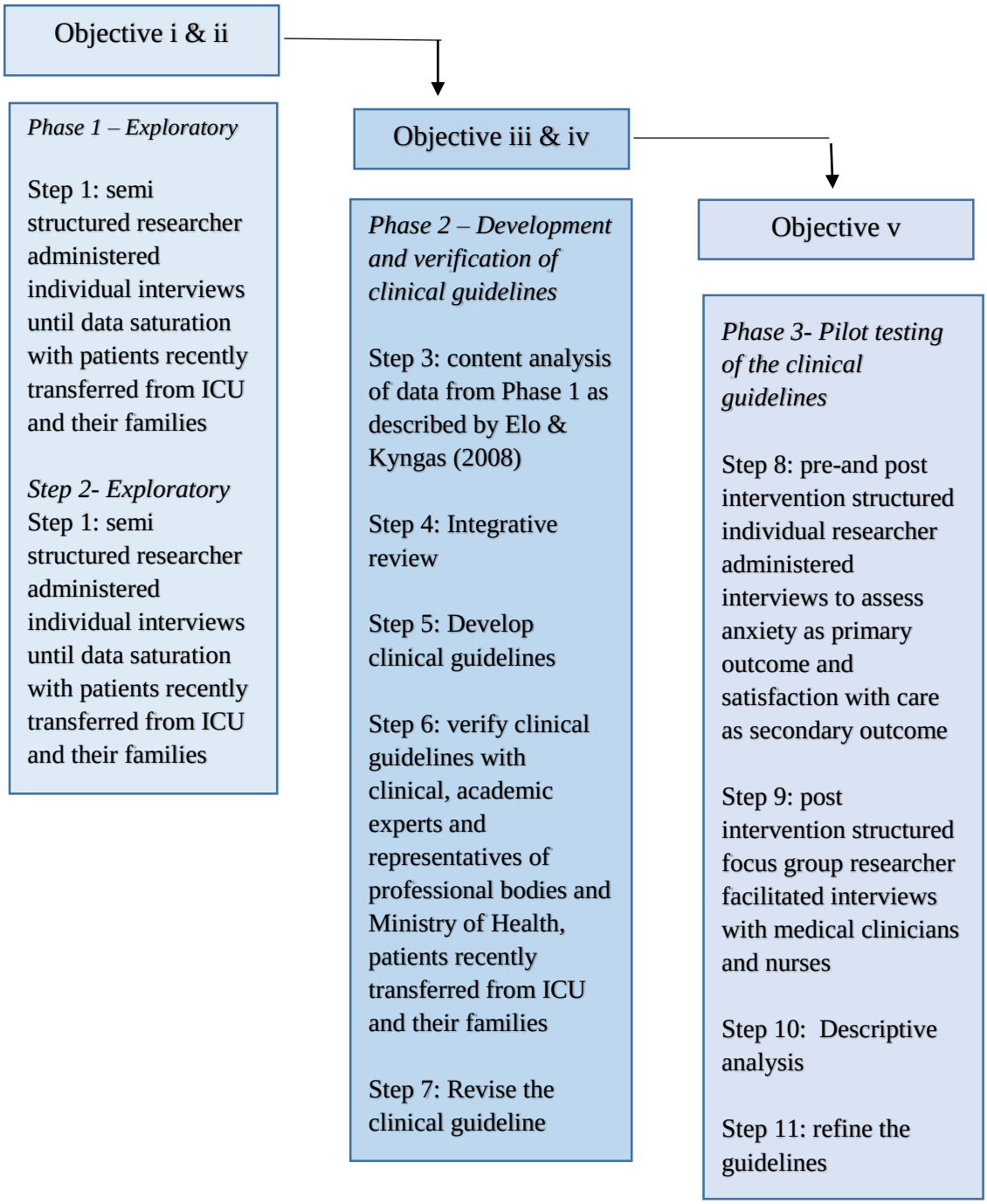


Figure 2.1 Overview of the methodology of the study.

2.4 PHASE 1: EXPLORATORY PHASE

2.4.1 Data Collection Methods and Procedures

Data for phase one were collected between February and November 2017, after receiving written approval from the HREC (*Appendix A*), COMREC (*Appendix B*), Hospital Director (*Appendix C1*) and Head of Anaesthesia and Intensive Care (*Appendix C2*). Following this, the researcher conducted several meetings to brief those whom the study would affect, and for their understanding and support, including ICU and surgical matrons and clinical consultants, nurses in charge and their nurses. Thereafter the researcher conducted interviews on one patient, one family, one ICU clinician and one ward nurse in order to check for clarity and understanding of the tools developed by the researcher. There were no major changes deemed necessary, except for the suggestion to change the word "doctor" to "medical clinician" in order to take care of medical healthcare providers who were not doctors by qualification but provided transitional care. The data obtained from the check were analysed as part of the main study.

The researcher, as the instrument in qualitative research studies has extensive experience in conducting interviews. She has conducted qualitative research studies as an individual as well as in collaboration with other health care professionals. Additionally, being in the academic field, she has supervised qualitative research studies for students both at Bachelor's and Master's degree levels in which conducting interviews are key. Further, the researcher is also a content expert in this field of study.

Phase one of the study was in two parts: step one and step two. The conducting of semi-structured individual interviews was to solicit expert opinion and/or experiences with transitional care from patients recently transferred from ICU and their families as recipients of the care in step one, and healthcare professionals as providers of the care in step two. The interviews were administered by the researcher, who aside from being the instrument, administered the interviews, observed, took notes, interviewed and interpreted the data being collected (Creswell, 2009). In both steps, the collection of data continued until data saturation, the point where no new information is forthcoming and redundancy is achieved

(Gillis and Jackson, 2002; Polit and Beck, 2008). Data collection from multiple participants was necessary to gain a deeper understanding of transitional care.

2.4.1.1 Individual interviews with patients recently transferred from ICU and their families.

The researcher approached patients and families who met the inclusion criteria and offered them either Chichewa or English information documents (*Appendix D and Appendix E*) to read, followed by some explanations about the study to make sure that they understood what was going to happen. If they agreed to participate, they were given either English or Chichewa consent forms to sign as an indication of their agreement to participate in the study (*Appendix F and Appendix G*) and either Chichewa or English audiotaping consent forms to sign as an indication of their agreement to be audiotaped during their interviews (*Appendix H and Appendix I*. All patients and families opted to use Chichewa tools, consequently their interviews were in Chichewa, the national language in Malawi.

To arrange interviews with patients and families, the researcher was consistently checking with ICU and surgical ward for their availability, according to the inclusion criteria, which included:

- adult surgical patients;
- able to communicate verbally;
- 3-5 days post ICU to reduce recall bias;
- stable enough to give relevant information.

One registered nurse, familiar with qualitative research and experienced in critical care was designated to be the contact person for this study as a condition for anyone to conduct a study at the participating hospital for capacity building. This nurse initially informed patients recently transferred from ICU or their families about the study while in the ward prior to the researcher having contact with them. She was not known to them prior to contacting them. The researcher too was not known to them and did not participate in patient care to avoid influencing results.

Patients and families' demographic data were collected using biographical questionnaires (*Appendix J and Appendix K*), while their experiences and recommendations on transitional

care were collected using semi-structured interview guides (*Appendix L and Appendix M*). The interviews continued until data saturation which occurred after interviewing four patients recently transferred from ICU and five families. There was no linkage between patients and the family participants who participated in the interviews. The researcher had concern that interviewing patients and related families might have produced similar results. This part of the study aimed to obtain depth in the individual interviews and not attempt generalisations by the researcher at this stage of data collecting data. Hence patients and families were not related and not interviewed together.

The data were obtained by asking them a broad central question as follows:

> *"Based on this hospital stay, can you please describe to me your ICU transitional care experience before, during and after ICU transfer and your feelings about it?''*

2.4.1.2 Individual interviews of healthcare professionals

This step was conducted after interviewing patients and families in step one. Lists of all medical clinicians and nurses were requested from their supervisors and their demographic information to determine their eligibility to participate in the study; those who met the inclusion criteria were contacted for inclusion in the sample. The researcher met the multidisciplinary team members individually, at agreed times and places, and offered them the English information document (*Appendix N*) to read, followed by explanations about the study to make sure they understood what was going to happen. If they agreed to participate they received the English consent form to sign as an indication of their agreement to participate in the study (*Appendix F*), and English audiotaping consent forms to sign as an indication of their agreement for audiotaping during their interview (*Appendix H*). All interviews for the multidisciplinary teams were in English, the official language in Malawi. To arrange the interviews with the multidisciplinary teams, the researcher contacted them at their duty stations or by telephone, according to the inclusion criteria, which included:

- being medical clinicians and nurses;
- practicing full time in ICU or surgical wards for a minimum of 6 months;
- has experience with transitional care.

The multidisciplinary team members' demographic data were collected using biographical questionnaires (*Appendix O*), while their experiences and recommendations on transitional care were collected using semi-structured interview guides (*Appendix P*). The interviews started with the ICU team followed by the ward team. The interviews continued until data saturation, reached after interviewing three medical clinicians and eight nurses in ICU and two medical clinicians and 12 nurses in the surgical wards. A broad central question posed to the multidisciplinary teams obtained the data.

> *"Based on your experience and/or expertise, can you describe to me how the ICU transitional care process is conducted and your feelings about it before during and after ICU transfer?''*

2.4.1.3 Conducting the interviews

Individual interviews collected data from participants. Participants received an information document, biographical data, consent form and audiotaping forms to fill in. The majority however wanted the researcher to fill in the data, which they supplied. Appointments were made beforehand to carry out the interviews, which were conducted in private rooms close to either the wards or ICU, depending on where the participants were working or mostly found. The patients' interviews took place in their beds, mostly in the evenings when it was quieter, as it did not feel comfortable and safe to move them away. The families' interviews occurred in rooms within the surgical wards so that they could be close to their patients if needed.

At the beginning of every interview, the researcher explained the purpose of the study and the objective of the interview, and provided information documents about the study to participants. Participants were made aware that their contributions were important to the study. They received assurance of confidentiality and anonymity throughout the study, and that their names would not appear in the research report; for identification purposes numbers replaced personal names. Additionally, reassurance was given that irrespective of whether they participated or not, patient care would not be affected. This was to minimise coercion of the participants. The emphasis was on voluntary participation and participants could withdraw at any time without penalty. The researcher ensured the environment was not

threatening by welcoming participants in a friendly calm manner, and attentively listening to them.

Thereafter, participants had the opportunity to ask questions before the start of the interviews. Once settled and comfortable, the researcher asked the central question according to the category of participants being interviewed at that particular time. Participants had time to reflect on their thoughts, and asked if they had understood the question or not. Where they had not understood, the question was repeated and they would be allowed to answer if the researcher was convinced they had understood. The researcher asked the participants if the interview could begin just to make sure they understood the central question before answering it. Clarifying questions such as "what do you mean," "when," "why," "who," "by who" and "can you tell me more about that" were asked whenever necessary to encourage participants to narrate their experiences. The researcher encouraged participants to express themselves using non-verbal techniques, such as head nods and eye contact, with minimal use of verbal responses, such as 'yes' and 'uh-huh,' paraphrasing a statement or repetition by a synonym. Reflection enhanced the reliability of data by asking, 'Do I understand you correctly? At the end of the interview, participants had the opportunity to comment or add anything they felt was relevant to the topic, but overlooked. The focus of both interviews was to solicit participants' opinions and/or experiences with transition of care, which included isolating facilitators of care, challenges or barriers to care and suggestions for improvement of the care. The interviews lasted between 45 and 60 minutes.

2.4.1.4 Method of data analysis for phase one

The method of data analysis for phase one (qualitative study) is presented in phase two, section 2.6.1 of Chapter Two.

2.5 PHASE 2: DEVELOPMENT OF THE CLINICAL GUIDELINE AND VERIFICATION PHASE

The second phase too place between December 2017 and February 2019, and comprised three steps, namely: a content analysis of qualitative data whose findings are presented in Chapter Three; an integrative literature review whose results are presented in Chapter Four, and the development of the guideline, verifying it with stakeholders and revising the guideline whose results are presented in Chapter Five. This phase addressed objectives three and four of the study.

2.5.1 Content Analysis of Qualitative Data

Qualitative data analysis was done concurrently with qualitative data collection for phase one to enable the researcher to redirect the study, in case new insights developed (Bengtsson, 2016). Additionally, it was done manually to enable creativity from the researcher, which is important when deciding what constitutes the themes and when drawing conclusions from the results (Flick, 2002; Patton, 2002). Data analysis occurred in two steps: step one involved concurrently collecting and analysing data from patients recently transferred from ICU and their families, and step two involved concurrently collecting and analysing data from ICU and ward multidisciplinary teams. The data from both steps was analysed using content analysis, a procedure that involves organising data, open coding, creating categories and abstractions and presenting results in tabular form with major themes and sub-themes, which involve preparation, organising, and reporting phases (Elo and Kyngäs, 2008),

2.5.1.1 Preparation phase

The preparation phase consisted of collecting data guided by the research proposal for analysis, making sense of the data, and selecting the units of analysis or units of meaning (Elo and Kyngäs, 2008). The phase commenced with the transcription of the data immediately after the first interview of each group of participants being interviewed at a particular time, starting with patients and families, followed by the ICU multidisciplinary team and concluding with the ward multidisciplinary team. The same central interview question and its probes were asked of each interviewee of a specific group of participants and their

answers were tape-recorded, transcribed verbatim to avoid bias (Lacey and Luff, 2007) and written up into text material with one transcript per interviewee (Polkinghorne and Arnold, 2014). Thereafter the researcher listened to the tape recordings of every transcript again, with the transcript in front of her to make sure the transcription was accurate (Lacey and Luff, 2007). After transcription, the labelling of the data ensured easy retrieval. Each interview was given a number, date of interview, group to which the participants belonged and unit to enable the researcher to trace back the interview texts to their contexts. The removal of all identifiable materials from the transcripts ensured confidentiality (Lacey and Luff, 2007). (Refer to *Appendix Q* for a sample of transcribed individual interviews).

2.5.1.2 Organising phase

The organising phase included open coding, creating categories and abstractions (Elo and Kyngäs, 2008). The researcher familiarised herself with the data by reading through it to obtain the sense of the whole and discover what was going on before it was broken down into smaller meaning units (Polit and Beck, 2004; Bengtsson, 2016), also known as units of analysis (Lacey and Luff, 2007) which comprised phrases, sentences or paragraphs trying to answer the research question as well as address the aim of the study (Graneheim and Lundman, 2004; Lacey and Luff, 2007). These meaning units were large enough for consideration as a whole, but small enough to be kept in mind as a context during the analysis process (Graneheim and Lundman, 2004; Lacey and Luff, 2007). The researcher listened to tape recordings, read and re-read the transcripts and made summaries (Lacey and Luff, 2007).

The researcher highlighted words, phrases, sentences or paragraphs of interest in relation to the context as understood by her (Berg, 2001; Polkinghorne and Arnold, 2014). Ideas which were readily arose as she read through the transcripts were given preliminary codes, also known as open or initial coding, which involved note taking and writing down headings in the margins of the text and labelling emerging issues from specific pieces of data to describe aspects of the content (Hsieh and Shannon, 2005). These were refined during the subsequent stages of open coding, in which ideas similar to those previously coded were noted, and given the same codes, while new ideas received new codes (Lacey and Luff, 2007); the headings were then collected from the margins and placed onto the coding sheets (Cole,

1988; Dey, 2003; Downe-Wamboldt, 1992). Coding lists continually changed with the collection of more data and analysis for specific groups of participants, because some codes that seemed clear at the beginning of the analysis became obscure in the process (Bengtsson, 2016). Coding helped to compact data and facilitate identification of patterns within the data that otherwise were not apparent (Catanzaro, 1988; Polkinghorne and Arnold, 2014). *In vivo* terms, which are actual phrases or words used by participants as well as those the researcher used to represent participants' expressions of the underlying content, identified the codes (Bernard, 2000; Lacey and Luff, 2007). Open coding continued in this fashion for the rest of the interview transcripts, with the researcher referring to the coding list, including explanations of the codes, to minimise a cognitive change during the process of analysis in order to secure the reliability of qualitative data (Catanzaro, 1988; Downe-Wamboldt, 1992; Richards and Morse, 2012). The researcher checked all aspects of the content were covered in relation to the aim (Burnard, 1991). The researcher re-read the original texts alongside the highlighted final list of meaning units and let go of the unmarked information that did not address the aim of the study (Bengtsson, 2016). The researcher then created categories, "groups of words with similar meanings or connotations" (Weber, 1990, p.37) and abstractions from the created concepts.

Before the researcher created categories and themes, the extended meaning units were paraphrased to reduce the number of words, making them more concise and manageable but without changing their meaning and keeping a sense of the interviewees' original comments (Graneheim and Lundman, 2004; Polkinghorne and Arnold, 2014). Words sharing the same meaning were condensed into fewer content-related categories (Cavanagh, 1997).

Dividing the coded materials into specific and explicit content areas, guided by the central question and probes used when collecting data for a specific group of participants, extracted the sense of the data, (Graneheim and Lundman, 2004). Then the researcher identified themes and engaged in re-coding to develop categories. Identified categories and themes were internally homo-generous and externally heterogeneous, meaning that data did not fall into more than one group of content areas (Burnard, 1991; Krippendorff, 2004; Patton, 2002; Polkinghorne and Arnold, 2014). To achieve this the researcher placed each point in a separate sentence (Polkinghorne and Arnold, 2014). The researcher looked through the list of codes, and those that were similar formed a category, and then re-looked through the

interviews to see if any other references were missing. The researcher compared codes, moved them back and forth between categories, combined some codes and themes, thereby reducing them and condensing the data in the process (Burnard, 1991; Polkinghorne and Arnold, 2014) which helped the researcher to arrive at a manageable and meaningful set of data (Kulatunga, Amaratunga and Haigh, 2007). When to stop categorization was guided by the aim of the study and saturation (Bengtsson, 2016; Lacey and Luff, 2007). The researcher's supervisor, an experienced qualitative researcher, conducted an independent content analysis of the interview transcripts. After completion of the independent analysis, the supervisor and the researcher arranged a meeting for a discussion. They compared their results and reached a consensus. The categories and themes agreed upon were finalised, displayed in a table and comprised the findings of the study.

2.5.1.3 Reporting phase

In the reporting phase, the content of the categories and themes described the findings (Elo *et al*., 2014; Elo and Kyngäs, 2008). After establishing the categories and themes for each group of participants, the researcher began the formal analysis and writing up of the findings, while maintaining neutrality and objectivity as much as possible to avoid influencing the report (Bengtsson, 2016). For each theme, the researcher chose appropriate verbatim data presented in the interview text as quotations (Bengtsson, 2016) and evidence to support the arguments (Lacey and Luff, 2007). Chapter Three presents the detailed results of the analysis for steps one and two and their literature control. **Figure 2.2** summarises the content analysis process employed in this study.

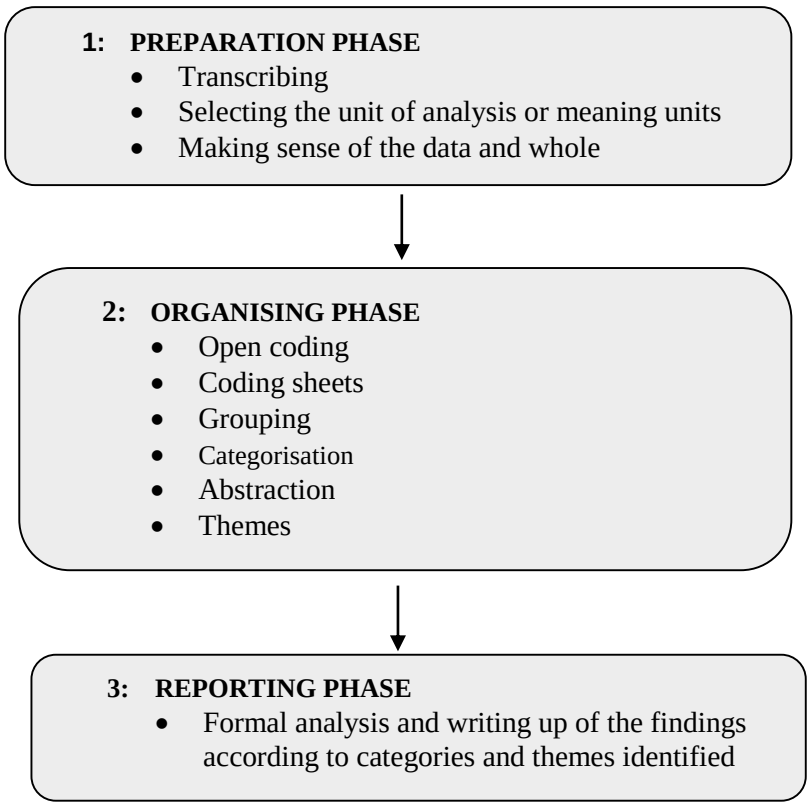


Figure 2.2: Phases of the content analysis process

2.5.2 Integrative Literature Review

An integrative literature review is the methodology that synthesises and summarises past literature to provide a more comprehensive understanding of a particular phenomenon or healthcare problem under study with direct applicability to practice (Broome, 2000; Whittemore and Knafl, 2005). As a methodological research approach, integrative review allows for diverse and broad methods, which play a significant role in evidence-based practice compared to other reviews, such as systematic review, meta-analysis and qualitative reviews (Souza, Silva and Carvalho, 2010; Whittemore and Knafl, 2005). It explores both experimental and non-experimental studies to understand the phenomenon being analysed (Whittemore and Knafl, 2005). The conducting of the integrative literature review was the second step of phase two of the study.

- Objective of the review

The objective of this integrative literature review was to gather knowledge to verify findings obtained from phase one; a qualitative component of the study conducted to explore patients recently transferred from ICU and their families and ICU and ward multidisciplinary teams' experiences of transitional care from ICU to the ward.

- Aim of the review

The review aimed to investigate documented evidence on transition of care from ICU to the ward before, during and after ICU *transfer*, highlighting facilitators, challenges and strategies for improvement.

2.5.2.1 Research design

The review followed a mixed studies review (MSR) research design, "a literature review that concomitantly examines qualitative, quantitative and mixed methods studies (MMS)"(Pluye *et al*., 2009, p. 530), where data are reported as a text of their publications (Pluye *et al*., 2009). MSR ensures the inclusiveness of relevant information since limitations may exist if only one design is employed as a source of evidence (Flemming, 2007). MSR aims at "gaining breadth and depth of understanding or corroboration, within a single study or closely related studies" (Johnson, Onwuegbuzie and Turner, 2007, p.123).

The framework of Whittemore and Knafl, in combination with recommendations of the Preferred Reporting Items for Systematic Reviews (PRISMA) statement, guided the process of identifying and screening the studies (Khanum *et al*., 2016; Whittemore and Knafl, 2005). The combination aimed at limiting bias and ensuring transparency in conducting the review (Whittemore and Knafl, 2005), while the use of the PRISMA statement aimed at structuring the process (Liberati *et al*., 2009). The review encompassed five stages, namely problem identification, literature search, data evaluation, data analysis and presentation (Whittemore and Knafl, 2005).

2.5.2.2 Problem identification stage

The review began by preparing a research question, which was "asked in PICOT format" (Melnyk and Fineout-Overholt, 2011, p.11) to guide the selection of studies and extraction of data from primary sources and extraction of information from the data (Souza, Silva and Carvalho, 2010; Whittemore and Knafl, 2005). PICOT stands for population or problem, intervention, comparison, outcome and time (Melnyk and Fineout-Overholt, 2011). The format promotes good structure and quality of the question and when combined with a clear objective, it provides focus and boundaries, which are essential in integrative review (Whittemore and Knafl, 2005). Therefore, based on the objective of the review, the question was "***What are the adult patients recently transferred from ICU, their families, ICU and ward multidisciplinary teams' (P) experiences with transitional care (O) before, during and after ICU transfer (T) and what strategies are employed in the provision of ICU transitional care (I) as described in qualitative, quantitative and mixed primary studies (C)?"***

The variables of interest were target population, participants, interventions, comparison, outcomes and timeframe for measuring outcomes (Melnyk and Fineout-Overholt, 2011). The target population comprised "qualitative, quantitative and mixed methods primary studies" (Pluye *et al*., 2009, p.530) on transition experiences. Participants were adult surgical patients recently transferred from ICU and their families, and ICU and ward multidisciplinary teams. Interventions were strategies employed by multidisciplinary teams in the provision of transitional care to patients recently transferred from ICU and their families before, during and after ICU transfer, which were the timeframes. Outcomes were findings from included studies that reported patients recently transferred from ICU and their families, ICU and ward multidisciplinary teams' transition experiences from ICU to the ward; they included anxiety levels, degree of satisfaction with care and changes in the practice of transitional care by nurses, post-intervention. The comparison of the findings was pre- and post-intervention in addition to employing mixed research design and methods.

2.5.2.3 Literature search stage

This involved searching and sampling literature for potentially relevant studies in the four selected electronic databases within Witwatersrand University, journals, reference lists of the selected studies and unpublished materials, including theses, as stipulated in the inclusion criteria (Conn *et al*., 2003). For all studies that needed clarification, contacts were made with primary authors.

Multiple sources of literature were employed to reduce the risk of bias when selecting databases, data sources and publications (Schlosser, 2007); to assure representativeness of the sample and reliability of the results (Conn *et al*., 2003; Soeken and Sripusanapan, 2003; Souza, Silva and Carvalho, 2010) to enhance the review's rigour and improve the accuracy of conclusions (Whittemore and Knafl, 2005).

To identify relevant studies in the literature, the researcher repeatedly searched the selected databases using the selected keywords: ***transition, transitions of care, critically ill patient, family, intensive care and ward-based care*** with the aim to retrieve as many articles as possible regarding the research question. **Table 2.1** outlines the search strategy used in the selected electronic databases.

Table 2.1 Search strategy used in the online databases.

Databases	**Search strategies combining key Words**
PUBMED EBSCOHOST CINAHL SCOPUS	transition AND critically ill patient AND intensive care transition AND critically ill patient AND ward-based care transition AND family AND intensive care transition AND family AND ward-based care transitions of care AND critically ill patient AND intensive care transitions of care AND critically ill patient AND ward-based care transitions of care AND family AND intensive care transitions of care AND family AND ward-based care transition OR transitions of care AND critically ill patient OR family AND intensive care OR ward-based care

- Target population

The target population in this integrative literature review comprised qualitative, quantitative and mixed methods primary studies on adult patients recently transferred from ICU and their families and multidisciplinary teams' experiences with ICU transitional care and facilitators, challenges or barriers, as well as strategies employed in the provision of ICU transitional care before, during and after ICU transfer.

- Sample and sampling

All qualitative, quantitative and mixed methods primary studies addressing ICU transitional care and meeting the inclusion criteria were included in the sample; those excluded did not meet the criteria. The inclusion criteria comprised full articles published in English in selected four electronic databases - PubMed, CINAHL, EBSCOHOST and Scopus. These were the recommended major search engines for the subject under study within the University of Witwatersrand Library database. According to the plan in the proposal, the search was supposed to cover articles published within the past decade that is from 2005 to 2016 however, the search was extended to January 2018

The aim was to obtain relevant older studies on the topic to draw lessons from the past. The newer studies in the review helped to incorporate current (uptodate) information on ICU transitional care. As a concept in nursing, transition was introduced a by Meleis with reference to the' psychosocial process which patients experience as they interact the environment and adapt to changes or disruptions within it which affect the patients' health and wellbeing (Meleis *et al*., 2000). References of the extracted articles were further searched for other relevant publications for inclusion in this review.

Unpublished research (thesis) relevant to this review were similarly searched for relevant references of primary studies according to the inclusion criteria. To identify them, their titles were similarly searched through the four selected databases. Where full articles were not available online, their primary authors were contacted through e-mails to obtain them (Young and Hopewell, 2011). Additionally, references of relevant conferences and reports were also searched to obtain data.

The exclusion criteria comprised papers published in languages other than English, not addressing ICU transitional care, not published in selected databases, published research and unpublished research (thesis) before 2005 as they would be too old, abstracts only, studies on neonates, children or youths and their families and more than five days' stay in the ward post ICU transfer.

The researcher stopped searching for studies after saturation, where the same articles, authors, themes and patterns were seen and the same references were cited in similar articles without finding new relevant evidence. The reference lists of included papers were further searched for other relevant publications for inclusion in this review (Refer to *Appendix R* for characteristics of excluded studies).

2.5.2.4 Data evaluation stage

This stage involved identification, screening and selection of eligible studies for inclusion in the integrative review. The PRISMA flowchart detailing the process is presented in Chapter Four (Refer to **Figure 4.1**). After selection of the studies, the researcher and her supervisor assessed each of the included studies for methodological quality by employing the validated 2011 Mixed Methods Appraisal Tool (MMAT). Results of the methodological quality assessment of included studies are presented in Chapter Four.

2.5.2.5 Data analysis stage

This stage involved data extraction and synthesis.

- Data Extraction

To extract relevant data from selected articles, a previously prepared standardised form, developed guided by the inclusion criteria, documented the required information (Khanum *et al*., 2016; Stelfox *et al*., 2013). The researcher and her supervisor repeatedly reviewed each study to ensure extraction of valid patterns (Whittemore and Knafl, 2005) to minimise errors in transcription, to guarantee precision when checking information and to serve as a record (Souza, Silva and Carvalho, 2010). The form extracted information about author(s), year and country, title, journal name, issue, volume and page(s), aim or objective, design, sampling, sample size and setting, interventions or strategies, findings or conclusion and recommendations or nursing implications on ICU transitional care before, during and after ICU transfer (Ganong, 1987; Khanum *et al*., 2016).

- Synthesis of data

Data synthesis encompassed summarising and blending results from included studies. Categorisation occurred on patients recently transferred from ICU and their families and multidisciplinary teams' experiences, facilitators, challenges/barriers and strategies/recommendations employed in the provision of ICU transitional care. Primary methods of data analysis of each study were employed to analyse data (Patton, 2002). To

facilitate the analysis and synthesis process, data extracted from primary studies were compared for categorisation of similar data before consolidation (Miles and Huberman, 1994) through data reduction, data display and data comparison, drawing conclusions and verifying the data with primary sources for accuracy and confirmability (Miles and Huberman, 1994), to avoid premature conclusions or exclusion of pertinent evidence (Sandelowski, 1995).

2.5.2.6 Data Presentation Stage

Chapter Four presents the results of the integrative literature review process.

2.5.3 Development of the Clinical Guideline

The bases for the development of the clinical guideline was findings from interviews with patients recently transferred from ICU and their families, ICU and ward multidisciplinary teams and evidence from the integrative literature review. Following analysis and synthesis of the interviews and review findings, the researcher identified four interrelated major areas that guided the framework of the draft clinical guideline (refer to **Figure 5.1**), from which the recommendations and their explanations were deduced (Refer to **Table 5.1** for key findings from the interviews and **Table 5.2** for key findings from the review). The key recommendations and rationales from the two sources of data drafted the clinical guideline, followed by the removal of all repetitions. There was no levelling of evidence of the identified recommendations, as this was not the focus of this study (Refer to **Table 5.3** for the draft guideline).

2.5.4 Verification of the Clinical Guideline

The clinical guideline was verified by both the internal as well as external multidisciplinary stakeholders within the hospital and across the country respectively. The verification was carried out in three iterations, each using different stakeholders before reaching a consensus on the final content.

- First iteration of the Clinical Guideline Verification

After drafting the guideline, the researcher developed a verification questionnaire from the recommendation statements of the guideline for stakeholders to use when rating the draft guideline. The stakeholders were also sent an explanatory cover letter detailing what they needed to do with the questionnaire (*Appendix S*), and consent obtained from them (*Appendix F*). During verification, each stakeholder had to provide certain personal details on the questionnaire, except for their names, which would compromise their anonymity. However, this was required in case there was a need to contact them in the future for this research's purposes. The stakeholders individually rated the relevance of each recommendation and its explanation by indicating, "**Agree," "Disagree" or "Unsure"** against each statement and giving the rationale for the decision. To ensure the comprehensiveness of their opinions/experiences, there was a blank space at the end of the questionnaire for additional information or comments from the participants (Refer to *Appendix T* for details).

Thirteen instead of 10 internal and external stakeholders, as initially planned, verified the draft clinical guideline, as the opinions of the three additional experts were necessary to ensure a wider spectrum of ideas on transitional care. The stakeholders included one transferred ICU patient, one family member, one hospital director, one ICU nurse, a representative from the Directorate of Nursing Services in the MOH, a representative of the professional body, the Nurses and Midwives Council of Malawi (NMCM), two nurse educators, two matrons of the participating units and three HODs of the participating departments. The stakeholders were involved for purposes of seeking and incorporating their opinions and/or experiences in the clinical guideline in order to inform nursing practice of transition of care, as they were not part of the processes leading to the drafting of the

clinical guideline (Hewitt-Taylor, 2004). Refer to **Table 5.4** for personal details of stakeholders who verified the clinical guideline during the first iteration.

- Second iteration of the Clinical Guideline Verification

During second iteration, 15 internal stakeholders comprising the hospital management and participating unit/departmental matrons (nursing managers) verified the draft clinical guideline through a dissemination meeting of preliminary study findings. The researcher, with the help of the designated hospital nurse, facilitated the discussions using both the power point presentation and printed draft versions of clinical guideline and guided them through the recommendation statements and their rationales following the process used in the first iteration. They were asked to indicate if they **agreed, disagreed or were unsure** of the statements as a group. The hospital contact registered nurse who was familiar with qualitative research took notes during the meeting for use in further refinement of the clinical guideline. These internal stakeholders did not form part of the prior processes of developing the clinical guideline nor did they participate in the first iteration of the clinical guideline verification.

- Third iteration of Clinical guideline Verification

During the third iteration, 11 internal multidisciplinary stakeholders from ICU and the wards verified the draft clinical guideline through a dissemination meeting of preliminary study findings in the same manner as in the second iteration and guided them through the recommendation statements and their rationales. The majority of the internal stakeholders in this iteration, comprised those who had participated in the prior qualitative study conducted in phase 1 as well as in the second iteration.

2.6.5 Revision of the Clinical Guideline

After the stakeholders' verification, the rates which the stakeholders assigned to each recommendation statement were analysed to determine the frequencies and percentages of "**Agree," "Disagree" or "Unsure"** responses. The revision of the clinical guideline involved restructuring the sentences to a large extent, combining statements, removing a

recommendation statement and its rationale, splitting the guideline into ICU and Ward specific guidelines for easy referencing and adding a preamble to each specific guideline in order to provide some background information. Chapter Five presents the details of the verification, refinement processes and their results.

2.6 PHASE 3: PILOT TESTING

Phase three was conducted between February 2019 and May 2020. It comprised five steps, namely the pre-intervention assessment, implementation of the guideline, post-intervention assessment, descriptive analysis of the assessments and refining the guideline. This phase addressed objective five of the study.

2.6.1 Pre-intervention Assessment

Before implementing the developed clinical guideline, levels of anxiety as the primary outcome and the degree of satisfaction with care as the secondary outcome were assessed among patients and families to obtain baseline data. The pre-intervention group received routine care.

- Target population

Adult patients and their families recently transferred from ICU to surgical wards.

- Sample and sampling

A sample size of 65 (n = 65) recently transferred patients from ICU and families was purposively selected. According to Thabane, Ma, Chu *et al.* (2010) pilot studies, amongst other things, can be used to assess treatment or intervention. The authors also stated there is no need for a sample size calculation in a pilot study. However, Cohen (1992) stated that to achieve power (confidence level) for a pilot study, when expecting a medium effect in an intervention study, a sample size of 64 (n=64) is adequate. For the purposes of this study however, 65 (n= 65) recently transferred ICU patients and their families were included in the sample for the pilot study.

Purposive sampling involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest (Creswell *et al*., 2011). The selection of participants considered the nature of their composition as well as the study setting which focused only on recently transferred ICU patients and their families.

- The inclusion criteria:

Adult surgical patients recently transferred from ICU able to communicate verbally, 3-5 days post ICU, stable enough to give relevant information and paired with a close family member willing to give relevant information.

- Data collection procedures

To arrange the interviews, the researcher consistently checked with the ICU and surgical wards for patients recently transferred from ICU and their families' availability through the designated contact hospital nurse. The researcher approached every patients recently transferred from ICU or a family member, and those meeting the inclusion criteria and willing to participate in the study were offered information documents to read. Similarly, they declined to read as such the researcher read to them, followed by some explanations about the study to ensure they understood what was going to happen (*Appendix D and Appendix E*). If they accepted, they received consent forms to sign or place their thumbprint as an indication of their agreement to participate in the study (*Appendix F and Appendix G*), and interviewed until the required sample size of 65 (n = 65) patients recently transferred from ICU and family members was obtained.

To translate the study information and consent forms used from English to Chichewa, the researcher engaged a trained, experienced independent translator fluent in the target Chichewa language. The translator was supplied with the English information documents that needed to be translated, for him to read and get an overview of the subject matter and content. Then he systematically translated the information into Chichewa sentence by sentence to make the first draft. Thereafter, he worked through the Chichewa draft and compared it with the sentences in the original English documents to confirm that content

was not missed nor misinterpreted in addition to identifying and improving all slightly unpleasant wording. The translation was then put aside for two days to clear the mind. Thereafter, the translator re-read the Chichewa translation without referring to the English document, checked the quality of expressions and edited the documents.

- **Zung Self-Rating Anxiety Scale [SAS] (Zung, 1971)**

Patients and their families' demographic details, anxiety levels, as well as satisfaction with transitional care were collected using structured questionnaires (*Appendix U or V and Appendix W or X*). The use of the 20-item Zung Self-Rating Anxiety Scale [SAS] (Zung, 1971) was with regard to anxiety levels. There are 15 questions with increasing anxiety levels, each of which is scored on a Likert-type scale in order of 1-4 (based on the replies: "a little of the time," "some of the time," "good part of the time," and "most of the time"). To avoid bias, the remaining five questions, 5, 9, 13, 17 and 19, on the scale are inversely formulated. These are decreasing anxiety questions, scored in the opposite order since they represent positive/non-anxiety statements.

The overall assessment involved total raw scores ranging from 20-80, converted to an "Anxiety Index" score ranging from 1 to 4 using the chart to determine the clinical interpretation of one's level of anxiety. Anxiety Index 1= 20-44 (Normal Range), 2= 45-59 (Mild to Moderate Anxiety Levels), 3= 60-74 (Marked to Severe Anxiety Levels) and 4= 75-80 (Extreme Anxiety Levels).

The researcher asked patients recently transferred from ICU and their families the questions from the questionnaires, and placed a checkmark (√) on their behalf in the column, which best described how often they felt or behaved that way in the past several days they were in ICU, and at the time they were in the wards. For details, refer to section 2.0 of *Appendix U Appendix V, Appendix Wand Appendix X*).

- **Critical Care Family Needs Inventory [CCFI] (Johnson, Onwuegbuzie and Turner, 1998)**

Patients and families' degree of satisfaction with transitional care in ICU used a 14-item shortened version of the Critical Care Family Needs Inventory (CCFNI) for assessment (Johnson, Onwuegbuzie and Turner, 1998).

The patients and families were asked to indicate how satisfied they were with the level of care at the time of data collection by responding to each of the 14 statements on a 4-point Likert scale, from (1) "almost all of the time," (2) "most of the time," (3) "only some of the time," to (4) "none of the time."

Answer options 1 and 2 denoted satisfaction (score one), while answer options 3 and 4 denoted dissatisfaction with care (score zero) (Johnson, Onwuegbuzie and Turner, 1998), except for items 11 and 14 which were inversely formulated in the scale to avoid bias. These were scored in the opposite order, answer options 1 and 2 denoted dissatisfaction with care (score zero), while answer options 3 and 4 denoted satisfaction with care (score one).

Satisfaction scoring involved summing answer options (1) and (2) for all items, and answer options (3) and (4) for items 11 and 14. The level of satisfaction for each participant was calculated by adding the scores of all the questions, with the minimum value being zero (extreme dissatisfaction) and the maximum being 14 (extreme satisfaction) ((Refer to section 3.0 of *Appendix U, Appendix V, Appendix W and Appendix X)*.

- **Picker Patient Experiences [PPE] Questionnaire (**Jenkinson, Coulter and Bruster, 2002)

The measurement of the degree of satisfaction with ward care used 15 items of the Picker Adult In-patient Questionnaire commonly referred to as the 15-Picker Patient experiences Questionnaire [PPE] (Jenkinson, Coulter and Bruster, 2002).

The patients and families had to indicate how satisfied they were with the level of care in the ward by responding to each of the 15 statements on a dichotomous scale.

Each item was coded for statistical analysis as a dichotomous 'problem score' indicating the presence or absence of a problem. The questionnaire had two response options ("Yes," or "no") to four response options ("Yes," "no," "I did not need to," or "Yes, to some extent").

The responses were turned into a binary outcome reflecting a problem or no problem with the questioned domain. Neutral answers, such as "I did not need to," and the most positive answer were coded as a "non-problem" (score = 0). The remaining responses were coded as "problems" (score = 1). The basis for the overall assessment was on the content of problem scores, the aspects of care requiring improvement according to the patients and/or families (Jenkinson, Coulter and Bruster, 2002).

Based on these binary problem/no problem responses, the percentage of patients or families with or without problems was calculated for each question. Potential problem content for participants on the questionnaire ranged from 0% denoting no problem to 100% denoting total problems (Parlour *et al*., 2014). (Refer to section 3.0 of *Appendix U, Appendix V, Appendix W and Appendix X).*

According to the initial data collection plan, both patient and family participants were asked to complete all the questionnaires in Chichewa translated format by themselves however, because data was collected as paired participants (patient and family member) the groups requested the researcher to fill the questionnaires on their behalf with the information they supplied. Once completed the participants were given an opportunity and time to review the questionnaires and read for agreement that their responses were accurately captured on the questionnaire.

- Approach to quantitative data management and analysis

All the data was captured by the researcher onto a Microsoft XCEL spreadsheet. The researcher adhered to the guidelines of the developers when capturing and coding the data, as described in the aforementioned section. All the data was checked and verified on second round entry on entry into the statistical software package for data analysis. Data was analysed using the IBM-Statistical Package for Social Sciences (SPSS) version 27 and non-parametric tests. Statistical assistance was sought from the institution where the research is currently

employed. The baseline characteristics of the study participants was described as frequency and percentage for categorical variables, medians and interquartile range for variables with a continuous scale. Descriptive statistics was used to analyse categorical data whose results were presented in frequencies and percentages. Median and IQR were used to summarize all numeric variables. Further tests were performed using Mann-Whitney U test to compare anxiety levels of patients and families; degree of satisfaction with care in ICU and degree of satisfaction with care in the ward pre-intervention and post-intervention.

Chapter Six presents the results of the pre-intervention, which formed a baseline for comparison with same assessments post-intervention.

2.6.2 Implementation of the Clinical Guideline (The Intervention)

During this stage, nurses in the ICU and adult surgical wards at QECH implemented the verified and refined split ICU and ward-specific guidelines. Following the two dissemination meetings, the nurses in charge of ICU and surgical wards received copies of the guidelines for display in their units for reference as they implemented it. Nurses were encouraged to provide transitional care to patients and families following recommendations from the developed guideline. Several small groups or individual discussions concerning the guideline took place with the nurses to check for and correct the deficiencies in the implementation process, as well to give an opportunity for the nurses to ask questions, queries and concerns. Periodic meetings were held with nurses in charge (or their representatives) of the participating units to assess the progress of implementing the guideline, and to provide support and supervision.

The implementation of the guideline continued until a post-intervention assessment with a sample of 65 (n = 65) patients recently transferred from ICU and their family members was obtained for comparison with pre-intervention assessment.

2.6.3 Post-intervention Assessment

During this step, patients recently transferred from ICU and their families during implementation of the clinical guideline were assessed for levels of anxiety and degree of satisfaction with care, as a primary and secondary outcome respectively, in order to establish if the intervention had an effect on the two outcomes.

- Target population

Adult patients recently transferred from ICU and their families.

- Sample and sampling

Sixty-five (n = 65) patients recently transferred from ICU and family members were purposively selected. This was an independent sample, however possessing characteristics similar to those of the pre-intervention sample in terms of the inclusion criteria which included being adult surgical patients recently transferred from ICU able to communicate verbally, 3-5 days post ICU and stable enough to give relevant information and paired by a close family member willing to give information.
The researcher approached every patient recently transferred from ICU or family member who met the inclusion criteria, through the contact hospital nurse, requested them to participate in the study and if they voluntarily accepted, they were interviewed until their required sample sizes were obtained.

- Inclusion criteria

Similar to the pre intervention, these were adult surgical patients recently transferred from ICU able to communicate verbally, 3-5 days post ICU to reduce recall bias and stable enough to give relevant information and paired with a close family member willing to give relevant information.

- Data collection procedures

To arrange the interviews, the researcher was consistently checking with the ICU and surgical wards for patients recently transferred from ICU and their families' availability through the designated contact hospital nurse according to the inclusion criteria. Those meeting the inclusion criteria and willing to participate in the study received the information documents (*Appendix D and Appendix E***)** to read, followed by some explanations about the study to make sure they understood what was going to happen. If they agreed to participate, they received consent forms to sign or place thumbprints on the form as an indication of their agreement (*Appendix F and Appendix G*).

Similar to the pre-intervention assessment, with regard to anxiety levels, patients recently transferred from ICU and their families were assessed using the 20-item Zung Self-Rating Anxiety Scale [SAS] (refer to section 2.0 of *Appendix U, Appendix V, Appendix W and Appendix X)*. Degree of satisfaction with transitional care in ICU was assessed using a 14-item CCFNI (refer to section 3.0 of *Appendix U, Appendix V, Appendix W and Appendix X*), while the degree of satisfaction with ward care was measured with 15 items of the Picker Adult In-patient Questionnaire (refer to section 3.0 of *Appendix U, Appendix V, Appendix W and Appendix X*).

Descriptive and comparative statistics presented the demographic data, the patients recently transferred from ICU and their families' anxiety levels, and their degree of satisfaction with transitional care in ICU and the surgical wards, similar to the pre-intervention step. The use of the non-parametric statistical technique Mann-Whitney U test, for the comparison of the primary and secondary variables between pre- and post-intervention, was because the data obtained were ordinal in nature and not normally distributed, and in addition, the pre- and post-intervention participant groups were independent of each other (Pallant, 2020). The statistical significance level adopted in this study was 0.05%.

The purpose of the comparison was to establish the effect of the intervention on patients and families' anxiety levels, and their degree of satisfaction with care. (Refer to Chapter Six for details).

2.6.4 Post-intervention Focus Group Discussion

A post-intervention focus group discussion took place with the multidisciplinary team to elicit their experiences or views on the safety and efficiency of the developed clinical guideline**.** Focus groups are particularly suited as a data collection method as they allow feedback and consensus on the phenomenon being discussed (Sandelowski, 2000). Focus groups allow interactions to occur in order for ideas to emerge from the group, therefore having the ability to become *"more than the sum of the participants, to exhibit a synergy that individuals alone cannot achieve"* (Krueger and Casey, 2010, p.19).

- Target population

ICU and ward medical clinicians and ward nurses.

- Procedures

To arrange the focus group discussion, the researcher contacted the participants in person.

- Inclusion criteria

Medical clinicians and nurses involved in either provision, organisation or supervision of the care.

- Sample and sampling

Four multidisciplinary team members (two from ICU and two from the wards) participated in the focus group discussion. The researcher purposively selected a sample by approaching the individuals and inviting them to participate in the discussion panel to refine the guideline. The sample comprised one clinician and one nurse from the ICU and from the surgical wards. The researcher explained the study progress from commencement to the point of conducting the focus group discussion for their information. After the individuals showed interest to participate in the discussion, the researcher offered them an information document (*Appendix N***)** to read followed by more explanations about the study to make sure they

understood what was going to happen. If they agreed to participate, they received a consent form (*Appendix F*) to sign as an indication of their acceptance.

The discussion took place in a conference room at a time of their choice. The purpose of the focus group interview was explained before commencing the discussions, and the participants were asked to be as honest as possible when giving their answers in order to assess changes in the practice of transitional care by nurses, post-intervention, which were to be used for final refinement the clinical guideline. They were encouraged to respond with information at any point in the course of the discussion if they felt they had an observation to make.
The researcher sought the participants' views regarding use of the developed clinical nursing guideline.

"Based on the pilot tested clinical nursing guideline can you describe to me how the ICU transitional care process is conducted and your feelings about it before during and after ICU transfer?'' (Refer to A*ppendix O*).

As per the qualitative study conducted in phase one, the data collected from the focus group discussion were transcribed using content analysis, as described in Section 2.6.1 of Chapter Two. The collected data were explored for comments indicative of their views/experiences regarding the developed guideline. Observations made from the discussions and their effect on the final clinical guideline are presented in Chapter Six.

2.7 ETHICAL CONSIDERATIONS

The researcher employed several strategies to ensure the study was ethical and participants were protected, which included obtaining clearance and permission to conduct the study as well as maintaining autonomy, confidentiality and anonymity throughout the study (Royal College of Nursing, 2009).

- Clearance by Ethics committees

The HREC (*Appendix A:* HREC Protocol number: M160835) as well COMREC (*Appendix B:* Protocol number: P.11/16/2075) granted ethical clearance to conduct the study.

- Permission to carry out the study

The Deputy Hospital Director (*Appendix C1*) and HOD of Anaesthesia and Intensive Care (*Appendix C2*) gave written permission to conduct the study, and the critical care and surgical units' nursing and medical authorities gave verbal permission. Additionally, written permission was obtained from individual and group participants before recruiting them to participate at each phase and step of the study (*Appendix F and Appendix G*) as well as permission to audio-tape during the exploratory phase (*Appendix H and Appendix I)*. As an indication of their agreement to participate in the study, participants had to append their signatures or thumbprint on the consent forms, witnessed by the researcher, which is an ethical research practice (Royal College of Nursing, 2009).

The researcher presented the information documents to participants detailing the study to enable them to understand the processes involved for them to make informed decisions on whether or not to participate in the study *(Appendix D, Appendix E and Appendix N).* The information document included the aim and purpose of the study, potential benefits and harms in participating, procedures for data collection and ways for ensuring ethical practices during the study, in language understood by each participant. Participants also had the chance to ask questions or to get clarifications on issues that mattered to them.

- Respect for Autonomy

Ensuring voluntary participation throughout the study was through information giving. Recruitment of participants was on a voluntary basis, and they were informed that if they wished, they could withdraw from the study at any point without penalty. It is the researcher's responsibility to ensure that participants know their participation is voluntary early enough before they commit to take part in the study (Royal College of Nursing, 2009).

- Confidentiality and anonymity

Maintaining confidentiality and anonymity of participants was paramount at all times. Code numbers instead of personal names identified participants throughout the study, with all other participant identifiers concealed as much as possible and all collected information only shared with supervisor. Additionally, raw data collected from participants remained safe in lockable cupboards and the electronic version of the data secured with a password; only the researcher and her supervisor could access the data. The conducting of the interviews was in quiet places of the participants' choice, especially multidisciplinary team members, to maintain privacy. However, for patients and families, the interviews were at the bedside, mostly in the evenings as the units/wards were quieter and less busy. The patients' critical condition made it difficult to move them away from their beds; as for families, it is common practice in Malawi for one or two members to stay at the patients' bedside supporting them, therefore it was also difficult to take them away for interviewing unless another family was visiting so that s/he could stay with the patient. This situation might have compromised anonymity and confidentiality, however the researcher ensured the maintenance of both in this study (Royal College of Nursing, 2009).

2.8 RIGOUR OF THE STUDY

Rigour in research is the quality of the study in terms of thoroughness and accurateness of the study (Oxford Dictionaries, 2013), as well as the robustness of the design and suitability of the methods employed to address the research questions (Cypress, 2017). Rigour is concerned with the validity and reliability of a research study (Davies and Dodd, 2002), concepts mostly aligned to quantitative research than to qualitative research (Rolfe, 2006). However, quality is equally important in qualitative research to manage its usually copious and subjective nature of the data. Rigour in qualitative research refers to the trustworthiness of the study (Lincoln and Guba, 1985). This study, being a mixed methods study, presents rigour for both quantitative (validity and reliability) and qualitative (trustworthiness) study components.

2.8.1 Quantitative Study

The application of the concepts validity and reliability guaranteed rigour in the quantitative component of this study. Ensuring validity, the extent to which the study measures what it intends to measure so that findings are considered correct (Heale and Twycross, 2015) and fair (Polit and Beck, 2008) was by employing data collection tools developed from established instruments and tested on adult patients in ICUs. Additional validation of the tools was carried out by experienced clinical experts, academics and the research supervisor, all of whom had experience with ICU transitional care. Additionally, the development of the clinical guidelines was guided by opinions and experiences of patients, families, healthcare professionals and documented evidence from literature, which was rigorously assessed for quality by the researcher and her supervisor, an experienced researcher and professor in critical care.

The researcher achieved reliability, the measure of consistency and accuracy with which data is collected in a study (Heale and Twycross, 2015; Polit and Beck, 2008), by collecting the data herself across all the phases, as well as obtaining only the data provided by the participants. Further enhancement of reliability was through participants' reflection on data provided during the individual interviews by the researcher asking them, 'Do I understand you correctly?' The developed clinical guideline was discussed further by study participants' representatives for accuracy of the included information, and its implementation was supervised by the researcher.

2.8.2 Qualitative Study

As a guarantee of trustworthiness in the qualitative data, Lincoln and Guba's Evaluative Criteria to establish the credibility, transferability, dependability, and confirmability of the study were employed (Lincoln and Guba, 1985).

2.8.2.1 Credibility of the study

Credibility, the confidence in the accuracy and truthfulness of the study findings (Polit and Beck, 2004), was through triangulation (method, person, time, and space), verification and thick description. In method triangulation, the collection of ICU transitional care data is through individual interviews and integrative literature review, as well as focus group discussions. Multiple methods enriched each other to promote deep understanding necessary for drawing conclusions on transitional care (Polit and Beck, 2004). Multiple sources of literature employed during the integrative literature review also helped to assure representativeness of the sample and reliability of the results (Conn *et al*., 2003; Soeken and Sripusanapan, 2003; Souza, Silva and Carvalho, 2010), enhance the review's rigour and improve the accuracy of conclusions (Whittemore and Knafl, 2005). Person triangulation was fulfilled when data had to be collected from multiple groups of participants, including patients and families recently transferred from ICU and multidisciplinary healthcare professionals, while space triangulation was achieved by collecting data from ICU and the surgical wards which enabled the establishment of similarities or differences between the two settings (Polit and Beck, 2004). The achievement of time triangulation was with pre- and post-intervention assessments of the outcome variables.

Verification of the draft clinical guideline was conducted by various local stakeholders, including representatives of patients and families recently transferred from ICU, multidisciplinary healthcare professionals, and representatives of NMCM and MOH who provided their opinions on the conclusions made to ensure inclusiveness (Polit and Beck, 2004).

A thick description of the study was through a detailed recording of transcribed data obtained from interviews and integrative literature review, including similarities and differences in the participants' perspectives across the methods and settings. Additionally, the description of the research setting, processes and procedures undertaken to conduct this study was to enable others to judge for themselves how the study was conducted.

2.8.2.2 Transferability of the study

Transferability, the extent to which the findings from a qualitative study can be applied to other situations as sample sizes in qualitative studies are small (Polit and Beck, 2004;

Shenton, 2004). Since this study comprises a qualitative component, ensuring transferability was via a detailed description of the study processes and procedures. The study setting, population, sample size and characteristics, data collection method and durations at specific phases of the study were all described so that readers could understand ICU transitional care to enable them to compare and apply to their settings (Polit and Beck, 2004; Shenton, 2004).

2.8.2.3 Dependability of the study

Dependability, the extent to which another investigator applying the same approaches as the present study would obtain the same results by an audit trail. The researcher recorded in detail all the processes and procedures followed as well as the generated data so that by reading this audit trail, other researchers could make an audit enquiry and draw the same conclusions (Gillis and Jackson, 2002).

2.8.2.4 Confirmability of the study

To achieve confirmability, the degree to which study results and conclusions are as objective or neutral as possible (Gillis and Jackson, 2002), the researcher ensured the study findings originated from participants' inquiries and study context and not from her own biases or preferences (Polit and Beck, 2004). The developed audit trail helped to explicitly limit the researchers' personal biases, assumptions, and values from influencing the study results (Gillis and Jackson, 2002).

2.9 SUMMARY

This chapter has described in detail the mixed methods research design employed in this study. It presented the purpose and objectives of the study, qualitative and quantitative methods and procedures used to collect and analyse data across the three phases, the ethical considerations and rigour of the study.

The next chapter presents the results of the qualitative study.

CHAPTER THREE

RESULTS FROM THE QUALITATIVE STUDY

3.1 INTRODUCTION

This study intended to explore the perspectives of patients recently transferred from ICU and their families, the ICU and ward multidisciplinary teams on the transition of psychosocial care from ICU to the ward at QECH in Blantyre, Malawi. This chapter presents demographic profiles and major themes that emerged from the participants' expressions of their expert opinions and/or experiences with the transition of psychosocial care before, during and after ICU transfer. The summary of findings is presented, and provides the fundamental structure of patients recently transferred from ICU and their families, the ICU and ward multidisciplinary teams' opinions of the need to develop the clinical nursing guideline. The presentation of the qualitative findings and their discussions was in two parts: part one for patients and families, and part two for ICU and ward multidisciplinary teams.

3.2 PART ONE: QUALITATIVE STUDY FOR PATIENTS AND FAMILIES

3.2.1 Demographic Characteristics for Patients and Families

Table 3.1: Summary of demographic data for patients

Patients' Demographic Data		
Code	Ward	Brief Remarks Concerning the Participants
P1	NHDU	Female, 37 years; Married; No formal education; Small scale business; 2 days in ICU, 3 days in ward; No previous experience with the psychosocial transitional care
P2	MSW	Male, 38 years; Married; Form 2; Self-employed Plumber; 7 Days in ICU, 3 days in ward; No previous experience with the psychosocial transitional care
P3	MSW	Male, 29 years; Married; Form 2; Steel Fixer; 5 days in ICU, 3 days in ward; No previous experience with the psychosocial transitional care
P4	FSW	Female, 36 years; Not Married; Standard 5; Piece work; 2 days in ICU, 4 days in ward; No previous experience with the psychosocial transitional care

Key: *ICU = intensive care unit; NHDU = Neurosurgical High Dependency Unit; FSW = Female Surgical Ward; MSW = Male Surgical Ward; P = Patient.*
Standard=Primary school education, (year 1-8) of the British educational system
Form=Secondary school education, (year 1-4) of the British educational system.

The patient participants comprised both genders. Their education level ranged from no formal education to junior secondary school. It was a first time for all of them to be admitted in ICU. **Table 3.1** details the results.

Table 3.2: Summary of demographic data for families

Code	Patient Ward	Relationship	Brief Remarks Concerning the Participants
F1	NHDU	Daughter / mother	Female, 60 years; Married; No formal education; Small scale business; 2 days in ICU and 3 days in ward as a patient guardian, first time experience.
F2	NHDU	Niece/ Aunt	Female, 35 years; Married; Standard 8; Small scale business; 14 days in ICU and 5 days in ward as a patient guardian, first time experience.
F3	NHDU	Son/ Mother	Female, 30 years; Not married; Standard 2; Small scale business; 7 days in ICU and 3 days in ward as a patient guardian, first time experience.
F4	NHDU	Son/ Father	Male, 45yrs; Married; Form 2; Sales representative; 62 days in ICU and 5days in ward as a patient guardian, first time experience..
F5	NHDU	Daughter/ Mother	Female, 51yrs; Not married; Standard 3; Small scale business; 14 days in ICU and 3 days in ward as a patient guardian, first time experience.

Key: *ICU = intensive care unit; NHDU = Neurosurgical High Dependency Unit; FSW = Female Surgical Ward; MSW = Male Surgical Ward; F = Family;*
Standard=Primary school education, (year 1-8) of the British educational system
Form=Secondary school education, (year 1-4) of the British educational system.

With regard to the family participants, they were all females mostly possessing primary school education. It was a first time experience for all them to be guardians of patients admitted to ICU. **Table 3.2** details the results.

3.2.2 Emergent Themes for patients and their families.

This section focuses on the key findings that surfaced from patients recently transferred from ICU and their families' expressions of their opinions of the need to develop and pilot test a clinical nursing guideline for the transition of psychosocial care from ICU to the ward. The patients' main prevailing issues included: *lacking information, not informed, staff did not visit and told transferred* while the families issues included *not told anything, told patient transferred, families like followers, information lacking and stand at bedside and watch*. Two emergent themes generated from the study provided the fundamental structure of the findings of the patients recently transferred from ICU and their families, which included: *just told transferred and lacking information*. Each theme will be presented and discussed in detail, substantiated by verbatim quotations from interview transcripts in the context they were expressed to support important observations or conclusions drawn by the researcher and to give them meaning. Following standard procedures for reporting interview data, typical statements made by participants are in italics. Similar themes were identified in the ICU and the wards.

3.2.2.1 Theme 1: *just told transferred*

- ICU experiences with transfer preparation

Both patients recently transferred from ICU and their families indicated the ICU multidisciplinary team did not prepare them for the transfer. They were either told about the transfer a few hours before the actual transfer, usually on the same day, or after the transfer had already been effected.

Patients had this to say concerning their preparation for ICU transfer:

> *"They told me that I have been transferred and I should go to the ward. So, we left for the ward."*
>
> Patient 2

"… I was told in the morning and I left in the afternoon for the ward when ward staff came to collect me."

Patient 3

"They just said now you are going back to your ward …"

Patient 4

Families had this to say regarding their preparation for ICU transfer:

"They informed us that we were due for transfer down to the ward with our patient and they told us to carry with us all the foodstuffs to the ward where we will continue to feed him. Then I packed everything, and we left for the ward."

Family 3

"The issue of leaving (the) Intensive Care Unit (and) coming here (to this ward) I was surprised. …I was just told "get ready, let us go to the ward"…I was not prepared …"

Family 4

"I was informed on time of transfer (at the point of leaving ICU) that we are going back to the ward because my patient had improved."

Family 5

- Ward experiences with transfer preparation

With regard to the receiving wards, the multidisciplinary team did not prepare patients and especially families for transfer from ICU. This was despite the fact that families spent most of their time on the wards waiting for the patient's transfer from the ICU. The families had this to say about their preparation by the wards:

"During transfer, we were at some place chatting and we were told that your patient has been transferred to ward…., you should go and you will find her there in ward…."

Family 1

"In the afternoon of the other day, I went outside to chat with my ward friends because I could not just sit down and watch over the empty bed as my daughter was in ICU. Then one of my friends informed me that my daughter's bed has been wheeled to ICU to collect her. That time I came back to sit by the bedside and they (nurses and my daughter) found me seated there."

Family 2

"… they (ward staff) too did not prepare us. They never came to ICU to meet us or telling us that we will come here, that did not happen…"

Family 4

3.2.2.2 Theme 2: *Lacking information*

- ICU experiences with information

Patients recently transferred from ICU and their families indicated they received little or no information from the ICU multidisciplinary team before, during and after ICU transfer. This is what patients said:

"… most of the things were not being explained to me but I do believe that there was that need…"

Patient 2

"…the way things happened and due to frequent changes of staff during shifts, information giving was somehow compromised… different healthcare providers were giving different information..."

Patient 3

"… they were not explaining anything to us there (in ICU) …"

Patient 4

When families visited their sick relatives in ICU, they received no information of what was happening with their patients. They did not know what to do or not to do, therefore they could just watch their patients during the time they were with them. For families who did

receive some information from the ICU team, it was reportedly non-specific. They expressed themselves as follows:

> *"We only saw that the patient was on oxygen and there were also some things which were placed on the body of the patient but we could not know, what could be that and what could be that."*
>
> Family 1

> *"...mind you, I did not stay there (ICU) but I was just being called and directed to see her at her bedside. ...I would go and stand by the patient's bedside and watch."*
>
> Family 2

> *"There was nothing that was happening. They would just tell us to stand by the patient's bedside and watch. They would say after you have watched and watched, you can get out and go (back to the ward) …."*
>
> Family 5

> *"The ICU staff was just telling us to kneel down and pray and that anytime we will leave this place. That was all."*
>
> Family 5

- Ward Experiences with information

Patients never interacted with ward staff prior to transfer, and had this to say:

> *"... Staff from the ward did not come to pay me a visit, no."*
>
> Patient 3

> *"... they (ward staff) did not visit me. But they only came to pick me from ICU to the Ward."*
>
> Patient 4

While back in the wards, patients and especially families did not get information, which left them unaware of what was happening around them. Patients' families, expressed themselves as follows:

> *"....we were like followers, we didn't know anything."....The guardian is required to move together with the clinician, he should tell her that now we are on the stage, we have moved and now we are at another stage and we are also required to move to that other stage so that you should know where you are and if anything happens you should not be surprised…"*
>
> Family 1
>
> *".... I sat down as a guardian and watched but I was not instructed on anything. .... she was asleep and I just sat and watched."*
>
> Family 2

> *".... they have not explained what is happening with him.... we will wait for the clinicians to tell us...."*
>
> Family 3

3.2.3 Discussion of Findings for Patients and Families

With regard to preparation for transfer from ICU to the ward, patients and their families in this study indicated they were inadequately prepared, and received little or no information. One reason for lack of adequate preparation for transfer in this study was that the ICU had only four beds, thus there was high demand for the beds leading to high patient turnover leaving no or very little time for staff from both units to prepare them adequately for transfer. Some participants felt that maybe they were being hurriedly transferred from ICU without preparation to create bed space for new admissions as a matter of priority over them, a practice that created patient fear of dying on the wards because they thought they were being transferred before they were able to cope outside the ICU. Premature patient transfer from the ICU reduces patients recently transferred from ICU and their families' satisfaction with care (Daffurn *et al*., 1994; Häggström, Asplund and Kristiansen, 2014; Powell, 2002) agreed with these findings, that the increasing and sometimes sudden demand for ICU beds meant that ICU transfers often occurred untimely, with little warning, resulting in a lack of or little

time for preparation and subsequently inadequately coordinated transfers creating anxiety in ICU patients and relatives. A study by (Forsberg, Lindgren and Engström, 2011) found that patients wished the transfer had been better planned and they had been better prepared, otherwise they generally felt their transfer had been rushed, similar to this study where patients and families' preparation involved only informing them they were moving out of ICU. Although the study of (Forsberg, Lindgren and Engström, 2011) investigated patients only, their findings could also apply to families, since families are seen as an extension of the patients and are equally affected by the patients' critical illness (Holden, Harrison and Johnson, 2002).

With regard to lacking information, almost all patients recently transferred from ICU and their families denied having received adequate information, communication, or education from healthcare providers of both units related to their transfer from ICU to the ward before, during and after the ICU transfer. Lacking information left most patients and families in suspense, without understanding what was happening, causing anxiety about the unknown, and confusion and dissatisfaction with their care (Häggström and Bäckström, 2014; Cognet and Coyer, 2014; Bench, Day and Griffiths, 2012). Adequate education and information to patients and families about the transfer improves patient safety, increases understanding of differences in care between the ICU and the ward, and improves quality of care (Chaboyer, James and Kendall, 2005; Cognet and Coyer, 2014). "Education and information-sharing are fundamental and frequently used forms of communication by healthcare professionals" (Mitchell and Courtney, 2005, p. 258).

These findings are congruent with Field, Prinjha and Rowan (2008) who, in their study to explore patients' accounts of additional causes of relocation stress, identified communication breakdowns with healthcare professionals as a major concern. The psychosocial wellbeing of patients recently transferred from ICU and their families of this study was compromised by lack of information, demanding that healthcare providers comprehensively pay attention to the psychosocial aspects of care (NICE, 2009).

Information provision and communication, a psychosocial aspect of care, are just as important as clinical treatment and physical care (Field, Prinjha and Rowan, 2008). This is supported by a report by the (Parliamentary and Health Service Ombudsman, 2009) in the

United Kingdom (UK), which showed that many patients and relatives' concerns focus less on clinical treatment or physical care, and more on poor communication and information sharing. It was indicated in that report that the nature and amount of information offered to patients and relatives frequently was the cause for their anxiety, frustration and anger, with a feeling of being uncared for by the healthcare professionals (Parliamentary and Health Service Ombudsman, 2009).

Change in the environment and the amount of information provided by healthcare providers can affect patients and relatives' perceptions towards the transition of psychosocial care before, during and after ICU transfer. In a study by Streater *et al*. (2001), the perception was communication was not as good in the wards as it was in ICU. Information was difficult to obtain and considered inaccurate, leading to high levels of anxiety in families in the wards (Streater *et al*., 2001). In the present study, the information was difficult to obtain by patients and families both in ICU and in the wards. Although not limited to the critical care setting, Francis (2013) in his study which focused on patients, emphasised the need to improve communication between patients, families and healthcare professionals in all clinical settings.

Despite not receiving information from healthcare providers, as was expected, regarding ICU psychosocial transition, participants in the present study did not ask for it, rather they accepted the situation and followed through with whatever was offered by the healthcare providers. A major reason for this passive reception of care by participants in this study could be their general perception of healthcare providers as experts of care, and as such they felt whatever they were doing was right and there was no need to question. Literature indicates that participants accept the transfer and relinquish power to healthcare professionals, being the experts of care, as they are get better (McKinney and Deeny, 2002; Odell, (2000).

Another reason for the passive reception of care could be ignorance regarding what they were to expect from healthcare providers, considering the lower literacy levels for the majority. Education generates knowledge that empowers and facilitates inquisitiveness and comprehension of issues in an environment (Paul, Hendry and Cabrelli, 2004). In their study, Paul, Hendry and Cabrelli (2004) identified illiteracy as a limitation to acquisition and use of information although some individuals would learn and comprehend issues "far and

beyond their formal education years" (Mitchell and Courtney, 2005c, p. 262). Doak, Doak and Root (1996) suggest that nurses need to be sensitive to the possibility that their patients may have literacy problems and to consider alternative ways of giving information. In addition, the majority of the participants had no previous experience with ICU psychosocial transitional care, which could have affected the way they perceived their present experience. Previous experiences of situations can influence the way one perceives similar experiences in the future. Therefore, a lack of previous experience for participants in this study meant no knowledge base from which to draw lessons of prior warning of preparation for transfer from ICU to the wards (Field, Prinjha and Rowan, 2008). Furthermore, the passive reception of care could be that participants were experiencing psychosocial transition stress despite them not obviously displaying it. If individuals experience high psychosocial transition stress while transferring from the ICU to the ward, the stress can reduce their ability to cope with the recovery process (Yun *et al*., 2017). Individuals can thus develop a passive attitude toward therapeutic activities in the ward (Watts and Gardner, 2005).

The findings demonstrated that patients and families as one unit perceived that ICU psychosocial transitional care was inadequate before, during and after ICU transfer. Families are considered to be an extension of the patients (Forsberg, Lindgren and Engström, 2011) and are equally affected by critical illness (Holden, Harrison and Johnson, 2002); problems of families of critically ill patients mirror the problems of critically ill patients (Holden, Harrison and Johnson, 2002), suggesting that the families' experiences will be similar if not the same as the patients, and therefore both require a holistic approach to transition of care from ICU to the ward (Bench and Day, 2010). Basically, they experience similar issues during the transfer from the ICU to the ward (Chaboyer, James and Kendall, 2005; Field, Prinjha and Rowan, 2008; Forsberg, Lindgren and Engström, 2011; Strahan and Brown, 2005);

3.3 PART TWO: QUALITATIVE STUDY FOR ICU AND WARD MULTIDISCIPLINARY TEAMS

3.3.1 Demography for ICU Multidisciplinary Team

Table 3.3: Demographic data for ICU multidisciplinary team

Code	Age (Yrs.)	Professional qualification	Unit/ ward	Designation	Year of qualification in intensive care	How acquired skills, if not trained	Work experience in unit	Position in unit
a) Anaesthetic clinical officers (ACOs								
1	32	ACO	OT and ICU	ICU Clinician	2009	NA	8	ACO
2	51	ACO	OT and ICU	ICU Clinician	2001	NA	16	SACO
3	48	ACO	OT and ICU	ICU Clinician	1997	NA	20	CCO
b) ICU nurses								
1	30	RNM	ICU	ICU Nurse	NA	Generic, OJT	5	In charge
2	35	NMT	ICU	ICU Nurse	NA	Generic, OJT	2	Nurse
3	29	NMT	ICU	ICU Nurse	NA	Generic, OJT	3	Nurse
4	24	NMT	ICU	ICU Nurse	NA	Generic, OJT	1	Nurse
5	24	NMT	ICU	ICU Nurse	NA	Generic, OJT	2	Nurse
6	28	NMT	ICU	ICU Nurse	NA	Generic, OJT	4	Nurse
7	33	NMT	ICU	ICU Nurse	NA	Generic, OJT	3	Nurse
8	36	NMT	ICU	ICU Nurse	NA	Generic, OJT	4	Nurse

Key: *ACO=Anaesthetic Clinical Officer; SACO=Senior Anaesthetic Clinical officer CCO= Chief Clinical Officer; ICU=Intensive Care Unit; OT=Operating Theatre; NA= Not applicable; NMT= Nurse Midwife Technician; Generic= College generic training; OJT=On job training; RNM=Registered Nurse Midwife*

Eleven ICU staff including anaesthetic clinical officers (ACOs) and nurses participated in the study. All the ACO's had formal intensive care qualification while all nurses had on the job training. The team's experience ranged from one to 20 years. **Table 3.3** details the results.

3.3.2 Emergent Themes for ICU Multidisciplinary Team

This section focuses on the findings that surfaced from the ICU multidisciplinary teams' opinions of the need to develop and pilot test a clinical nursing guideline for transition of psychosocial care from ICU to the ward. The ICU multidisciplinary teams' main prevailing issues included: *psychosocial care is not taken into account, we do not prepare them very well , we usually have pressure for beds, patients and the families feel damped, there is no time to discuss, we have a gap, what we are lacking most is information, we do not have guidelines, we need a lot of patience, we do not follow them up unless otherwise indicated, when we discharge them for us that is like the end, the interaction is very minimal after we discharge.* The multidisciplinary teams' emergent themes that provided the fundamental structure of the study's findings included *psychosocial care is not taken into account',* '*we do not prepare them very well*,' '*we have a gap*,' '*we do not follow them up unless otherwise indicated.*' The following are the themes as expressed by the ICU multidisciplinary team, which comprised anaesthetic clinical officers and the nurses.

3.3.2.1 Theme 1: *Psychosocial care is not taken into account*

The majority of ICU multi-disciplinary team felt the transition of psychosocial care provided to patients and families was inadequate as their main focus of care had been the physical aspect. They had this to say:

> *"… we usually do not take it (psychosocial aspect of care) into account when admitting, usually we just take into account the physical condition of the patient. The psychological part of the patient and what the family is going through and what the patient is going through and what the patient will go through after transfer is usually not accounted for and I think that is a part that we have been missing…".*
>
> ICU Nurse 1

"… There are a lot of things that they are missing out. I think that we as nurses we are just concerned with the physical part and we do not concentrate on the psychosocial part …".

ICU Nurse 3

"…but for the psychosocial part of it, to be honest not much is done…".

ICU Clinician 2

The ICU team included the provision of information and education to patients and families on the condition of the patient, especially on what they were supposed to do in the wards to continue with the care and what would be happening in the wards. They had this to say:

"…The guardians say here in ICU are given all the information they need, … after that we also give them a chance to ask questions if they have. So, we give all the information to the guardians…"

ICU Nurse 4

"…As we are taking care of that patient, we make sure that we communicate to the patient and all the things we are doing on the patient we make sure that he should know that if we transfer that patient, he should also continue with the care we are doing…. And even the guardians we involve them…"

ICU Nurse 2

"…the other patients whom we feel that after transfer they are supposed to be taken care (of) by the guardians themselves like those with tracheostomies, we normally teach them how to take care of the tracheostomy…"

ICU Clinician 1

. *"…When the patient is transferred from ICU, we tell the guardians…expect some changes, because there you will be on the bedside with the patient more … you are going to fully participate in the care of the patient because the nurses there (in the ward) are few… So, we tell them, you are going to do bed bathing, you are going to do almost everything that the patient will need…".*

ICU Nurse 8

3.3.2.2 Theme 2: *we do not prepare them very well*

The ICU team inadequately prepared the patients and families for the transfer to the wards. The participants commented:

> *" I feel patients and the families especially, feel damped… they feel like we have provided so much care and then they are going to another environment where the care is going to be different and they were not told about this… So, I feel like patients and families should be prepared even before coming to ICU that …it is going to be a temporary place and they will be coming back to the wards where they were…".*
>
> ICU Nurse 1

> *"...Sometimes it is done on (an) emergency basis because our ICU has got only four beds ... versus over three thousand hospital beds. So sometimes we transfer the patient because we want that bed… so in such transfers, there is no formal preparation…The guardians are just told in the ward that your patient is coming, they do not come to us so that we should explain to them, and there is no such time to discuss…"*
>
> ICU Clinician 2

> *"… the information that is given is given in brief, because most transfers most of (the) times are abrupt, we are transferring patients maybe even before our teaching. So, we just transfer the patient even without giving the information because it just comes abruptly. The clinicians maybe they are shifting the patient because they want to replace with another one who needs ICU…they just come here whilst we are working and say, "I am transferring this patient…"*
>
> ICU Nurse 7

3.3.2.3 Theme 3: *we have a gap*

The majority of participants indicated they experienced difficulties in delivering psychosocial transitional care to patients and their families due to lack of guidance on how to do it. They said:

> *"…I probably think we should set up a guideline on how to approach, the guardians (and patients) and that these guidelines should be implemented. There should be some kind of things that everyone should know in ICU even to the clinicians because you know one thing, I have observed is that people would like to have some kind of a guideline so that they should just follow..."*
>
> ICU Clinician 3

> *"I feel we should have some kind of guideline or protocol on how the whole process of transfer is supposed to be. So even the information what we are supposed to tell these patients and from when, whether from admission or from the point where we know that the patient has been transferred and the information itself on what we are supposed to say because that would mean that everybody would be saying uniform things…"*
>
> ICU Nurse 1

> *"…sometimes maybe it is the knowledge, how you can counsel, how you can deliver the kind of information …when we are talking of psychosocial, it looks as if it is something which is common but to go in details to say what kind of information am, I going to give this patient to cater for the psychosocial aspect …".*
>
> ICU Nurse 3

3.3.2.4 Theme 4: *we do not follow them unless otherwise indicated*

After *transferring* patients and families from the ICU, the participants indicated they rarely followed them up in the wards. They explained:

> *"…there is no follow up, that is why I am saying that we do not have proper guidelines, there is no checklist because ideally, that is what we are supposed to do*

that after transferring, we need maybe to be checking on these patients, maybe follow up…".

ICU Clinician 1

"… When we transfer them for us that is like the end, we lose contact with the patient unless the patient had other problems, considering that we have a shortage of staff I cannot say that it is (a) practical thing…"

ICU Nurse 1

"The interaction is very minimal to be honest after we transfer the patient. It is up to you if you have got a feeling that you go and check the patient but there are no guidelines or specifications that when you transfer a patient at least we have to follow them up to see how they are faring in the wards, that much lacks…".

ICU Clinician 2

"… so far, we should not lie, we do not follow up…".

ICU Nurse 7

"…When they have left ICU, we do not follow them up unless otherwise indicated like maybe the patient has started to deteriorate then our anaesthetist is called, he goes there to reassess the patient if the patient needs to come back to ICU then the patient is brought back but for nurses mostly no...".

ICU Nurse 8

3.3.3 Demography for Ward Multidisciplinary Team

Table 3.4: Demographic data for ward multidisciplinary team

Code	Age in years	Professional qualification	Name of unit working in	Designation of participant	Year qualified in ICU	How acquired ICU transitional care skills, if not trained	Work experience in Unit in years	Position in unit
a) Ward Clinician								
1	28	Medical Doctor	Surgery	Ward Clinician	NT	Generic, OJT	4	Surgical Registrar
2	35	Clinical Officer	Surgery	Ward Clinician	NT	Generic, OJT	10	Surgical Registrar
b) Ward Nurses								
1	60	NMT	FSW	Ward Nurse	NT	Generic, OJT	6	Nurse
2	38	NMT	FSW	Ward Nurse	NT	Generic, OJT	4	Nurse
3	26	RNM	FSW	Ward Nurse	NT	Generic, OJT	3	In charge
4	25	RN	MSW	Ward Nurse	NT	Generic, OJT	1	In charge
5	33	NMT	MSW	Ward Nurse	NT	Generic, OJT	6	Nurse
6	28	RNM	NHDU	Ward Nurse	NT	Generic, OJT	3	In charge
7	25	RNM	NHDU	Ward Nurse	NT	Generic, OJT	3	Nurse
8	29	NMT	NHDU	Ward Nurse	NT	Generic, OJT	3	Nurse
9	31	RNM	NHDU	Ward Nurse	NT	Generic, OJT	2	Nurse
10	36	NMT	NHDU	Ward Nurse	NT	Generic, OJT	3	Nurse

Key: *NMT=Nurse Midwife Technician; MSW=Male Surgical Ward; FSW=Female Surgical Ward; NHDU=Neurosurgical High Dependency Unit; OJT=On job training; RNM=Registered Nurse Midwife; NT=Not trained; RN=Registered Nurse; Generic=College generic training; NT=Not trained*

Twelve ward staff including two surgical registrars and 10 nurses, participated in the study. Although they all did not attain any formal intensive care qualification, they had between one to 10 years of experience with transitional care. **Table 3.4** details the results.

3.3.4 Emergent Themes for Ward Multidisciplinary Team

This section focuses on the findings that surfaced from ward multidisciplinary teams' opinions of the need to develop and pilot test a clinical nursing guideline for the transition of psychosocial care from ICU to the ward. The ward multidisciplinary teams' main prevailing issues included: *care is a bit sub-optimal, we lose control, they don't communicate to us, have transferred your patient, they do inform us when they are transferring, as nurses it is not very often that we go there in ICU, when the patients are here they are here and the ICU people are not bothered, it is not compulsory that we have to go and see patients in ICU, the patient will be ours when here and rarely would we have the ICU team back to have a look at the patient.* These 10 categories generated three emergent themes that provided the fundamental structure of the findings of the study: *care is a bit sub-optimal, have transferred your patient and our patient when in ward*. The following are the themes as expressed by the ward multidisciplinary team, which comprised surgical registrars and the nurses.

3.3.4.1 Theme 1: *care is a bit sub-optimal*

The ward team indicated transition of psychosocial care was generally sub-optimal as their focus of care was the physical aspect. The lack of information affected patients' and families' understanding of what was happening around their care. The participants had this to say:

> "*I guess the transition of psychosocial care is a bit sub-optimal, we could do better because there are some things we don't do and just because we are not accustomed to, not because we don't know that we should do it, but because we are not used to doing it, we just don't do it*".
>
> Ward Clinician 1

"…they (patients and families) don't really feel good because they don't understand …. So, it's a crush between the nurses and the families for them to understand. Even the feeding and everything is done by the nurses in ICU but for us, we teach them some of the basics, the simple things, so they don't really understand. It's like we are giving them work which they are not supposed to be given".

Ward Nurse 4

"Mainly it's psychological support that we need to provide to the guardians so that they can cope with the situation … on the part of the patient, it's the real physical care but now the challenge is that you might be two or three on duty…"

Ward Nurse 5

"*When we are having a lot of critically ill patients, we lose control, that's when we teach the guardians and we tell them that as you can see the ward is like this and there are many critically ill patients so some of these things you have to be helping us …*"

Ward Nurse 4

3.3.4.2 Theme 2: *transferred your patient*

The ward team did not usually receive advance information regarding patients' transfer from the ICU. They would be informed when the patients had already been transferred and waiting to be collected and transferred to the wards. The participants had this to say:

"They don't communicate to us about the admissions and that from ICU she will come here, they don't inform us about that. We just receive a call saying come and pick up your patient, she has been transferred... They can call us even during the night if they have transferred a patient…"

Ward Nurse 2

"When the patient is (already) transferred, they call us to say, 'We have transferred your patient, can you come and receive handover and take your patient,'

Ward Nurse 3

"*…when a patient is transferred from ICU, they make a call and we go to take the patient.*

Ward Nurse 5

The ward team indicated they inadequately prepared patients and/or families for ICU transfer, which was basically informing them about the transfer. They informed families in the wards after receiving a call from ICU, in the ICU when they had gone to pick up a patient, or they did not inform the families about the transfer of their patient. This is what they said:

"*...when we have taken the patient from the ICU, we come with the patient in the HDU and automatically… they know that our patient has been moved from ICU and is now in the ward. And when we are wheeling the patient into HDU, families automatically follow us, so we do tell them that now the patient is out from ICU and the things to be doing on the patient are this and this...*"

Ward Nurse 1

"*…the Intensive Care Nurses call us that they are transferring the patient then we go and take the patient… So, most of the time it's only us and the patients and then we have to call for the guardians and explain to them that their patient has been transferred. Then we have to transfer the patient to the ward and explain to both of them that they have been transferred because they are getting better…"*

Ward Nurse 7

"*… But when we are there in the ICU it's when we try to explain to them (guardian) to say 'we are going to pick this patient and will be in our unit.' Now when we transfer the patient here, we tell the guardian our plan of care here that is if the patient will stay for long or will be transferred to another ward, and we orient them to the environment of this unit and what we need here as our requirement in the HDU.*"

Ward Nurse 9

"*…for us we inform the guardians when we get to ICU to take the patient. We just tell them that I think your patient has now improved that she can go to the ward. Actually, we only say it in brief, we don't specifically sit down and explain everything, we only say in brief 'now you will go back, everything will be alright' like you are just relieving the anxiety and the like of just transferring the patient. So, we only inform the patient and the guardians that we are going back to our ward you are not going again to ICU unless there is anything else…"*

Ward Nurse 3

3.3.4.3 Theme 3: *Our patient when in ward*

Participants reported that pre-transfer visits to ICU before ICU transfer and patients' follow up to the wards after ICU transfer were not mandatory for ward and ICU multidisciplinary teams, respectively. Often these occurred on individual participants' initiatives.

"*We as nurses, it's not very often that we go there in ICU but we just ask the guardians, 'how is your patient doing in ICU because they do visit their patients?' But if we have got time sometimes, we do go just to see the patient, but it's not very often and we are not forced to go there to see the patient, the patient is there for ICU nurses only and she will be ours when she is here*".

Ward Nurse 1

"*… It is technically it's not possible... But you can take an effort to go to ICU, discuss with an individual, anaesthetist, then you take it from there. Even if the ICU people think that they have to follow up their patients it's only one person that comes down…"*

Ward Clinician 2

"*Sometimes they just do ask how are the patients but there is no real communication and when the patients are here, they are here, the ICU people are not bothered, even us when someone has gone to ICU, sometimes we go and see them, sometimes we don't*".

Ward Nurse 4

"*Interaction with patients in ICU, depends with self-initiative, the way you feel, it is not by compulsory that we have to go and see patients in ICU but some of us we go, not every time but some of the days we go and see what kind of patients that they have admitted and their prognoses…"*

Ward Nurse 8

3.3.5 Discussion of Findings for ICU and Ward Multidisciplinary Teams

This section presents a discussion of key findings from ICU and ward multidisciplinary teams' experiences of transfer from ICU to the ward before, during and after, in relation to insights from relevant literature. The overall analysis showed that the psychosocial transitional care was generally sub-optimal both in ICU and the wards probably because the priority care for critically ill patients is stabilisation for survival as most patients remained critical and highly dependent on healthcare providers even after ICU transfer. This is congruent with (Häggström, Asplund and Kristiansen, 2012), who pointed out that the focus of care for critically ill patients is on life saving and not primarily on life after life support, as patients recently transferred from ICU are often still highly dependent on continued complex mechanical care (Haines and Coad, 2001), in the course disregarding patients and families' basic but important needs for psychological support necessary for their recovery process (Watts, Pierson and Gardner, 2006; Watts, Gardner and Pierson, 2005). These findings are consistent with the practice of many ICUs in the UK, which mostly provided information to patients and families about the ICU environment and clinical treatments, with few of them offering specific information or education to prepare the patients and families psychologically for ICU transfer (The Audit Commission, 1999).

The non-existence of a clinical nursing guideline to guide the provision of the many activities of the psychosocial transitional care aspect was another reason given, especially by the ICU team, for sub-optimal psychosocial transitional care. The ICU multidisciplinary team specifically pointed out that they lacked a guideline of what specifically comprised ICU psychosocial transitional care, and how exactly that care was supposed to be delivered to patients and families before, during and after ICU transfer. Due to lack of a guideline, both ICU and ward multidisciplinary team members executed ICU psychosocial transitional care activities based on their personal experiences resulting in ICU patients and families receiving

unstructured psychosocial care. Availability of a guideline for ICU psychosocial transitional care would probably have promoted the standard practice by both teams, thereby reducing the psychological effects (Coyle, 2001) which ICU transfer brings including ICU transfer-induced stress on the patients and families (Davidson *et al*., 2007; Paul, Hendry and Cabrelli, 2004), as well as on the health care staff (Bench and Day, 2010).

The findings revealed the multidisciplinary teams experienced problems handling certain aspects of the psychosocial transitional care due to lack of a guideline, including communication among themselves, communication with patients and families, pre-transfer visits in ICU before transfer from ICU, and follow up to the wards after transfer from ICU. With regard to communication among the ICU and ward teams, it was revealed there was inadequate and ineffective communication between the two teams regarding patients' ICU transfer, which made the ward healthcare providers ill prepared to receive ICU patients after ICU transfer. Due to the absence of a guideline to guide the communication process, it becomes a problem when there is no consensus about what should be communicated, who should communicate, when and how the communication should occur, in addition to what is considered to be essential knowledge that requires attention on transfer (Cognet and Coyer, 2014; Cohen and Hilligoss, 2010).

With regard to communication with patients and families, it was revealed that healthcare providers from both units did not communicate adequately with patients and their families before, during and after ICU transfer, which resulted in them being ill prepared for the transfer and unable to cope with the transfer. Due to a lack of guidance on what was expected with regard to communication, any nurse who was around had to say something to the patients and families in preparation for their transfer, Both units did not have primary persons specifically responsible for communication, so it was hard to even track what, who, when and how much communication was done or was not done.

Patients and families received information about the transfer on the day of transfer, or a few hours before leaving the ICU, or even after they had already left ICU, especially for families. Both teams pointed out that they felt patients and families did not receive adequate information about transfer preparation to enable them to understand the changes in the environment and the levels of care.

The literature demonstrates that ICU transfer is a stress- and anxiety-producing event for patients and their families (Cypress, 2013) due to the reduction in the level of care after transfer from ICU (Cognet and Coyer, 2014), and an increased responsibility to provide bedside care (Chaboyer, James and Kendall, 2005). Ward nurses also feel stressed (Cypress, 2013) when receiving patients from the ICU, especially if they felt inadequately prepared or time constrained to care for ICU patients who still had high needs while on the (Elliott *et al*., 2011; James, Quirke and McBride-Henry, 2013). Adequate communication and information enables patients and families to increase their understanding of differences in clinical management between ICU and the wards (Cognet and Coyer, 2014; Chaboyer, James and Kendall, 2005) helping them to adapt to the psychosocial transitions that accompany the transfer (Watts, Gardner and Pierson, 2005) thereby reducing feelings of stress and anxiety (Fleischer *et al*., 2014; Mitchell and Courtney, 2004). Additionally, good interaction between ICU and ward staff can have an impact on the quality of care that patients receive (Elliott *et al*., 2011; Häggström, Asplund, Kristiansen, 2009; Ong and Coiera, 2011; Shendell-Falik, Feinson, Mohr, 2007), by promoting continuity and improving patient safety before, during and after ICU transfer (Lin *et al*., 2013). Where there are communication problems between ICU and ward nurses, the ICU transfer becomes stressful and anxiety provoking in the care providers (Bench and Day, 2010; Ong and Coiera, 2011).

On pre-transfer visits to the ICU by ward staff before transfer, and patients and families' follow up to the wards by ICU staff after ICU transfer, the findings revealed these occurred rarely and on individual members' personal initiatives. Additionally, both visits were not systematic as there were no guidelines in place to follow. Paul, Hendry and Cabrelli (2004) point out that the use of guidelines during pre-transfer visits and follow-ups may ensure some standardisation by acting as a resource for reference by the multidisciplinary teams. In the event that the majority of the staff was not ICU trained, the availability of the psychosocial transitional care guidelines would have helped to promote the provision of the psychosocial transitional care.

The minimal psychosocial care that multidisciplinary teams indicated they provided comprised of giving some non-specific verbal information to patients. Bench and Day, 2010) emphasise that patients and families need to know what is happening around them for them to feel safe and secure. Preparation and knowledge facilitate and empower patients and

families as people in the psychosocial transition and reduces their feelings of anxiety, especially if given earlier in the process, whereas a lack of it is an inhibitor (Meleis *et al*., 2000). The ward nurses too felt they were not well prepared to receive ICU patients and their families, thereby creating feelings of stress Bench and Day, 2010; Duffield *et al*., 2011).

After identifying the challenges to provision of the psychosocial transitional care from ICU to the wards, the teams were able to suggest strategies that would offer some guidance as they provide ICU psychosocial transitional care, as supported by literature:

- ICU staff to conduct formal follow-up of patients and families on the wards to support, give advice and information to patients and families, along with the ward staff (Chaboyer, James and Kendall, 2005; Paul, Hendry and Cabrelli, 2004), in order to bridge the coordination and the psychosocial transitional care gap between ICU and the wards (St-Louis and Brault, 2011; van Sluisveld *et al*., 2015);

- Increasing the involvement, communication and interactions with patients and families to help maintain relations and support among nurses, patients and families, which demands that providers communicate and interact more with patients and families (Haines, Crocker and Leducq, 2001), with their transfer planning being initiated from the day of admission and continued throughout their stay in ICU collaboratively with multidisciplinary teams and families (Cypress, 2013);

- Introduction of a guideline for ICU psychosocial transitional care to improve the patients and families' ICU transfer process (Cypress, 2013) and therefore help to reduce feelings of stress and anxiety for patients, families and the providers, (Whittaker and Ball, 2000).

Other effective interventions to bridge the gap in ICU psychosocial transitional care process, although not suggested by both teams but supported by literature, included use of (a) pre-transfer visits by the ward nurses to prepare the families for the ward experience in advance to reduce stress and anxiety for patients, families and the nurses after transfer (Whittaker and

Ball, 2000), (b) written information packs or booklets given to literate patients and families prior to transfer to the ward (Cutler and Garner, 1995) to provide them with tangible facts to support their understanding and enhance communication among patients, families and healthcare professionals as they are introduced to the next level of care for reference after ICU (Powell, 2002), and (c) critical care outreach or liaison nursing services by a clinical nurse specialist (CNS) to provide consultative services on the wards, and assist in managing clinical situations where more intensive, timely, and coordinated interventions are required as well as assisting with follow up in the wards (Ball, Kirkby and Williams, 2003; Marshall *et al*., 2017).

3.4 SUMMARY OF CONCLUSIONAL STATEMENTS ARISING FROM THE QUALITATIVE STUDY

This chapter presented findings from the qualitative studies on transitional care experiences for patients and families and ICU and ward nurses in addition to strategies used to facilitate the care before, during and after ICU transfer.

3.4.1 Summary of Key Findings from Patients' and Families' Experiences

Pertaining to the patients and families' experiences with ICU psychosocial transitional care before, during and after ICU transfer and their feelings about it, the study revealed patients and families:

- were not prepared for transfer by ICU multidisciplinary team before, during and after ICU transfer;
- were not prepared for transfer by ward multidisciplinary team before, during and after ICU transfer;
- received little or no and sometimes non-specific information from ICU multidisciplinary team;
- received little or no information from the ward multidisciplinary team.

3.4.2 Summary of Key Findings from ICU Multidisciplinary Team

With regard to the ICU and ward multidisciplinary teams' experience of providing ICU psychosocial transitional care before, during and after ICU transfer and their feelings about it, the study revealed:

- the ICU multi-disciplinary team provided inadequate psychosocial transitional care to patients and their families;
- the provision of information and education to patients and families formed part of their care for continuity the care in the wards;
- the ICU team inadequately prepared the patients and their families for transfer to the wards;
- the ICU team experienced difficulties in delivering the transition of psychosocial care to patients and their families due to lack of guidance on the process;
- after transfer of the patients and families from the ICU, the ICU team rarely followed up with them in the wards.

3.4.3 Summary of Key Findings from Ward Multidisciplinary Team

Pertaining to the ward multidisciplinary teams' experience of providing ICU psychosocial transitional care before, during and after ICU transfer and their feelings about it, the study revealed that:

- the transition of psychosocial care was generally sub-optimal in the wards as the focus of care was physical aspect;
- the ward team did not usually receive communication in advance regarding patients' transfer by ICU;
- lack of timely communication resulted in the ward team inadequately preparing patients and/or families for ICU transfer;
- pre-transfer visits to ICU before transfer were not conducted;
- there was no follow up of patients and families in the wards after ICU transfer

3.4.4 Summary of Key Findings from Strategies for Facilitating ICU Transition of Care

Strategies to help facilitate the provision of ICU psychosocial transitional care supported by literature are as follows:

- ICU and ward nurses should increase the involvement of, communication and interactions with patients and families;
- ward nurses should conduct pre-transfer visits of patients and families in ICU;
- ICU nurses should conduct follow-up visits of patients and families on the wards;
- ICU nurses should provide consultative services on the ward.

3.5 SUMMARY

This qualitative study demonstrated that the findings from the ICU and the wards are congruent with those expressed by patients and families as recipients of care and the multidisciplinary teams from ICU and the wards as providers of the care. Overall, the perception was ICU transitional care was inadequate before, during and after ICU discharge. The major challenge to the provision of ICU transitional care was the lack of guidance on the process. Good care is care that gives attention to the psychosocial wellbeing of patients and their families as one unit. Therefore, the conclusion is that there is a gap between the psychosocial transitional care provided at the study site and the ideal psychosocial transitional care. This study identified the specific interventions that can satisfy the psychosocial care needs of both the patients and families before, during and after the transfer from ICU.

The next chapter presents the results of the integrative literature review.

CHAPTER FOUR

RESULTS OF THE INTEGRATIVE LITERATURE REVIEW

4.1 INTRODUCTION

A search from selected sources yielded 104 studies, and after excluding duplicates, 70 remained. Screening of their titles and abstracts resulted in retention of 40 studies. Screening of full articles resulted into the exclusion of 26 studies for failing to meet the inclusion criteria and retention of 14 studies for quality of methodological assessment. **Figure 4.1** presents the PRISMA flowchart used to identify and screen studies.

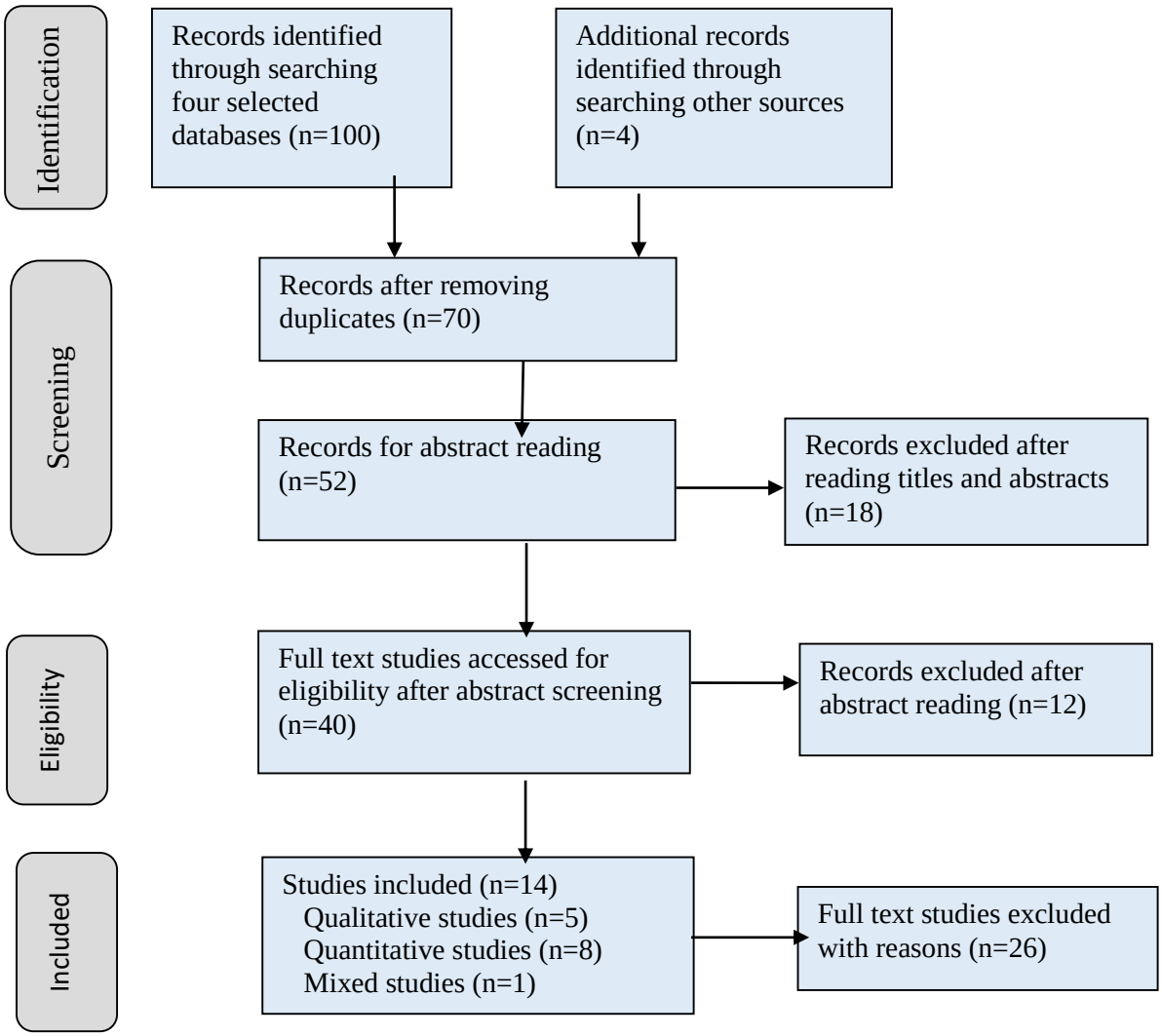


Figure 4:1: PRISMA flowchart showing the process of identification and screening of studies in the integrative review. [Adapted from (Khanum *et al*., 2016)]**.**

4.2 DESCRIPTION OF EXCLUDED STUDIES

The common reason for excluding nine articles after full-text review was participation of former ICU patients and/or their families to avoid recall bias. Incongruent and unspecified settings were other reasons for excluding five studies. The exclusion of another five studies was because key informants worked part time/casually or were not directly involved in bedside care, as their role in ICU transfer would be different from those who worked full time. The absence of full research reports was the reason for excluding three papers, as it was difficult to determine the inclusion and exclusion criteria based on abstracts only. The exclusion of one study for each of the following was for being non-original/primary research, measuring incongruent outcomes, applying incongruent methodological domains and being nonspecific to ICU transfer. *Appendix R* describes the characteristics of excluded full-text studies with reasons.

4.3 DESCRIPTION OF INCLUDED STUDIES

Fourteen primary studies were included in this review. Of the five qualitative studies, two were phenomenological: Strahan and Brown (2005) and Manookian, Dehghan-Nayeri, Negarandeh and Shali (2015), and three were descriptive studies: Athifa *et al*. (2011), James, Quirke and McBride-Henry (2013) and Enger and Andershed (2018). Of the eight quantitative studies, five were non-randomised studies: Mitchell and Courtney (2005a), Tel and Tel (2006), Chaboyer, Thalib *et al*. (2007), Gustad, Chaboyer and Wallis (2008) and Yun *et al.* (2017), while three were descriptive studies: Mitchell and Courtney (2005b), Ludin, Parker and Arbon (2014) and Zakerimoghadam et al., 2016. Only one was a mixed methods study, Mitchell and Courtney, 2005c. The included studies originated from four continents: Australia (n=6, 42.86%), Asia (n=5, 35.70%, Europe (n=2, 14.30%) and New Zealand (n=1, 7.14%).

Table 4.1 displays the origins of the included studies.

Table 4.1: Origins of included studies

Author (s)	Country of Origin	Continent
Mitchell and Courtney (2005a)	Australia	Australia
Mitchell and Courtney (2005b)	Australia	
Mitchell and Courtney (2005c)	Australia	
Chaboyer, Thalib *et al*. (2007)	Australia	
Gustad, Chaboyer and Wallis (2008)	Australia	
Athifa *et al*. (2011)	Australia	
Tel and Tel (2006)	Iran	Asia
Ludin, Parker and Arbon (2014)	Iran	
Manookian *et al*. (2015)	Malaysia	
Zakerimoghadam *et al*. (2016)	Korea	
Strahan and Brown (2005)	Turkey	
James, Quirke and McBride-Henry (2013)	Norway	Europe
Yun *et al*. (2017)	United Kingdom	
Enger and Andershed (2018)	New Zealand	New Zealand

4.4 QUALITY APPRAISAL OF INCLUDED STUDIES

Full copies of potential articles meeting the inclusion criteria were independently analysed and assessed for methodological quality by the researcher and her supervisor, an experienced researcher and professor in critical care to ensure validity. All differences were resolved by dialogue between them (Cypress, 2013). The review employed the validated 2011 Mixed Methods Appraisal Tool (MMAT) "for concomitantly appraising the methodological quality of qualitative, quantitative and mixed methods studies" (Häggström, Asplund, Kristiansen, 2009, p.539). Pace *et al*. (2012) described the MMAT as follows:

The MMAT contains five specific sets of criteria: (1) a 'qualitative' set for qualitative studies, and qualitative components of mixed methods research; (2) a 'randomised

controlled' set for randomised controlled quantitative studies, and randomised controlled components of mixed methods research; (3) a 'non-randomised' set for non-randomised quantitative studies, and non-randomised components of mixed methods research; (4) an 'observational descriptive' set for observational descriptive quantitative studies, and observational descriptive components of mixed methods research; (5) a set 'mixed methods' for mixed methods research studies. The judgement for each study type is within its methodological domain (p.48).

In this review, sections 1, 3 and 4 assessed qualitative studies, non-randomised quantitative studies and descriptive quantitative studies respectively (Pluye *et al*., 2011). For an MMS, sections 1, 3, 4 and 5 assessed its qualitative component; the two quantitative components, and its mixed methods component respectively (Pluye *et al*., 2011). The corresponding criteria described the methodological quality of each study (Pluye *et al*., 2011).

4.5 RESULTS OF THE METHODOLOGICAL QUALITY ASSESSMENT OF INCLUDED STUDIES

The methodological quality assessment using the MMAT criteria for the included studies (n=14) are presented in tabular format (Refer **tables 4.2 to 4.5)** respectively, and followed by the summary of the characteristics of included studies from the integrative review in **Table 4.6**.

There were 14 studies appraised in this review using different sets of criteria for each domain: five qualitative studies were subdivided into two phenomenological and three descriptive; eight quantitative were subdivided into five quasi-experimental non-randomised and three descriptive quantitative studies; one mixed methods study.

Table 4.2: Methodological quality assessment for qualitative studies (n=5)

Types of mixed methods study components or primary studies	Methodological quality criteria	Responses/Sources				
		Athifa *et al.* (2011)	Enger and Andershed (2018)	James, Quirke and McBride-Henry (2013).	Manookian *et al.* (2015)	Strahan and Brown (2005)
Screening questions (for all types)	Are there clear qualitative and quantitative research questions (or objectives*), or a clear mixed methods question (or objective*)?	Yes	Yes	Yes	Yes	Yes
	Do the collected data allow address the research question (objective)? E.g., consider whether the follow-up period is long enough for the outcome to occur (for longitudinal studies or study components).	Yes	Yes	Yes	Yes	Yes
	Further quality appraisal may be not feasible when the answer is 'No' or 'Can't tell' to one or both screening questions.					
Screening questions for qualitative studies	1.1. Are the sources of qualitative data (archives, documents, informants, observations) relevant to address the research question (objective)	Yes	Yes	Yes	Yes	Yes
	1.2. Is the process for analyzing qualitative data relevant to address the research question (objective)?	Yes	Yes	Yes	Yes	Yes
	1.3. Is appropriate consideration given to how findings relate to the context, e.g., the setting, in which the data were collected?	Yes	Yes	Yes	Yes	Yes
	1.4. Is appropriate consideration given to how findings relate	Yes	Yes	Yes	Yes	Yes
Comments		Phenomenology	Descriptive	Descriptive	Phenomenology	Descriptive
Total Score		****	****	****	****	****
Percentage		100%	100%	100%	100%	100%

Table 4.3: Methodological quality assessment for quantitative non-randomized studies (n=5)

Types of mixed methods study components or primary studies	Methodological quality criteria	Responses/Sources				
		Chaboyer, Thalib *et al.* (2007)	Gustad, Chaboyer and Wallis (2008)	Mitchell and Courtney (2005a)	Tel and Tel (2006)	Yun *et al.* (2017)
Screening questions (for all types)	Are there clear qualitative and quantitative research questions (or objectives*), or a clear mixed methods question (or objective*)?	Yes	Yes	Yes	Yes	Yes
	Do the collected data allow address the research question (objective)? E.g., consider whether the follow-up period is long enough for the outcome to occur (for longitudinal studies or study components).	Yes	Yes	Yes	Yes	Yes
	Further quality appraisal may be not feasible when the answer is 'No' or 'Can't tell' to one or both screening questions.					
Screening questions for quantitative non-randomized studies	3.1. Are participants (organizations) recruited in a way that minimized selection bias?	Yes	Yes	Yes	Yes	Yes
	3.2. Are measurements appropriate (clear origin, or validity known, or standard instrument; and absence of contamination between groups when appropriate) regarding the exposure/intervention and outcomes?	Yes	Yes	Yes	Yes	Yes
	3.3. In the groups being compared (exposed vs. non-exposed; with intervention vs. without; cases vs. controls), are the participants comparable, or do researchers take into account (control for) the difference between these groups?	Yes	Yes	Yes	Yes	Yes
	3.4. Are there complete outcome data (80% or above), and, when applicable, an acceptable response rate (60% or above), or an acceptable follow-up rate for cohort studies (depending on the duration of follow-up)?	Yes	Yes	Yes	Yes	Yes
Comments		Quasi-experimental	Quasi-experimental	Quasi-experimental	Quasi-experimental	Quasi-experimental
Scores		****	****	****	****	****
Percentage		100%	100%	100%	100%	100%

Table 4.4: Methodological quality assessment for quantitative descriptive studies (n=3)

Types of mixed methods study components or primary studies	Methodological quality criteria	Responses/Sources		
		Ludin, Parker and Arbon (2014)	Mitchell and Courtney (2005b)	Zakerimoghadam *et al.* (2016)
Screening questions (for all types)	Are there clear qualitative and quantitative research questions (or objectives*), or a clear mixed methods question (or objective*)?	Yes	Yes	Yes
	Do the collected data allow address the research question (objective)? E.g., consider whether the follow-up period is long enough for the outcome to occur (for longitudinal studies or study components).	Yes	Yes	Yes
	Further quality appraisal may be not feasible when the answer is 'No' or 'Can't tell' to one or both screening questions.			
Screening questions for quantitative descriptive studies	4.1. Is the sampling strategy relevant to address the quantitative research question (quantitative aspect of the mixed methods question)?	Yes	Yes	Yes
	4.2. Is the sample representative of the population understudy?	Yes	Yes	Yes
	4.3. Are measurements appropriate (clear origin, or validity known, or standard instrument)?	Yes	Yes	Yes
	4.4. Is there an acceptable response rate (60% or above)?	Yes	Yes	Yes
Comments		Descriptive	Descriptive	Cross sectional
Scores		****	****	****
Percentage		100%	100%	100%

Table 4.5: Methodological quality assessment for Mixed methods studies (n=1)

Types of mixed methods study components or primary studies	Methodological quality criteria	Responses/Sources
		Mitchell and Courtney (2005c)
Screening questions (for all types)	Are there clear qualitative and quantitative research questions (or objectives*), or a clear mixed methods question (or objective*)?	Yes
	Do the collected data allow address the research question (objective)? E.g., consider whether the follow-up period is long enough for the outcome to occur (for longitudinal studies or study components).	Yes
	Further quality appraisal may be not feasible when the answer is 'No' or 'Can't tell' to one or both screening questions.	
Screening questions for mixed methods Studies	5.1. Is the mixed methods research design relevant to address the qualitative and quantitative research questions (or objectives), or the qualitative and quantitative aspects of the mixed methods question (or objective)?	Yes
	5.2. Is the integration of qualitative and quantitative data (or results) relevant to address the research question (objective)?	Yes
	5.3. Is appropriate consideration given to the limitations associated with this integration, e.g., the divergence of qualitative and quantitative data (or results) in a triangulation design?	Yes
	Criteria for the qualitative component (1.1 to 1.4), and appropriate criteria for the quantitative component (2.1 to 2.4, or 3.1 to 3.4, or 4.1 to 4.4), must be also applied	
Comments		Evaluation and intervention study
Scores		***
Percentage		100%

Note:

- The score is 100% when qualitative or quantitative component=4 (****) or when mixed method study=3 (***)
- The 2011 MMAT is comprised of two parts: the above checklist and a tutorial. The tutorial is available on the following free public wiki website: http:// mixedmethodsappraisaltoolpublic.pbworks.com.
- *These two items under [**Screening questions (for all types)]** are not considered as double-barrelled items since in mixed methods research, (1) there may be research questions (quantitative research) or research objectives (qualitative research), and (2) data may be integrated, and/or qualitative findings and quantitative results can be integrated.

Table 4.6: Summary of characteristics of included studies (n = 14)

Author(s), year, Country	Title	Journal,	Aim/objective	Design, Sampling, Sample size and setting	Interventions/instruments (if used) / strategies	Findings/ Conclusion	Recommendations/ Nursing Implications
1. Athifa *et al*. (2011) Australia.	A qualitative exploration of nurse's perception of Critical Care Outreach Service: A before and after study	Australian Critical Care	To explore the perceptions of nursing staff before and after the introduction of critical care outreach Services (CCOS) at three adult teaching hospitals in Perth, Western Australia.	Before and after design Qualitative exploratory focus groups 131Registered nurses, (66 before and 65 six months after the introduction of the (CCOS. Framework analysis was used to analyse the transcribed data using a thematic approach with themes developed from the narratives of the participants. Setting: General wards	The critical care outreach Nurse (CCON) visited each patient prior to discharge from ICU to the general wards and liaised with ward staff to ensure adequate resources and documentation. The patients were then reviewed daily on the wards by the CCON and assessed for clinical progress and signs of deterioration. In addition, the CCON played a major clinical education role, in particular with junior nursing staff providing patient care.	Inexperienced RNs in particular voiced positive comments about the CCOS. The role was seen as a senior nurse who was an additional resource for less experienced staff as they educated them on complex procedures that were not common on the general wards. The RNs reported that apprehensions about the role that they had pre-implementation were not borne out in practice and that they believed that the CCOS had positive effects on patient outcomes.	<u>Conclusion</u> The CCOS improved communication processes between members of the multidisciplinary team and units within the hospital, which subsequently enhanced the ward transition process for critically ill patients and ward nursing staff.

2. Enger and Andershed (2018) Norway	Nurses' experience of the transfer of ICU patients to general wards: A great responsibility and a huge challenge	Journal of Clinical Nursing.	The aim of the study was to describe nurses' experiences of patients' transition from ICUs to general wards and their suggestions for improvements.	A qualitative descriptive design. Eight nurses (five from a university hospital and three from a local hospital Selected through a convenience sample. Qualitative content analysis. Setting: Two surgical wards in a university hospital and one surgical ward in a local hospital		Nurses' experiences were described in one main category: ICU patients' transition—a great responsibility and a huge challenge, and two generic categories with six subcategories: (i) a challenging transition for nurses, patients and relatives -advanced work to be done leads to uncertainty - the patient has become a typical ICU patient - A system that makes things difficult and (ii) dialogue and competencies as tools for improvement -The importance of cooperation and communication -The importance of a good report -The importance of clinical gaze and expertise on the ward A number of factors affected patient care, such as poor	<u>Clinical practice</u> <u>relevance</u>: There is still a gap between the ICU and general wards, and the nurses continue to struggle with this. <u>Recommendations</u> Interdisciplinary cooperation and communication between units Managers in both ICUs and general wards must, in collaboration with clinicians, work out a common strategy that promotes safe transitions for the patients and alleviates nurses' work. Enhanced competencies for ward nurses by experienced ICU nurses.

						cooperation, communication, reporting, expertise and clinical gaze.	
3. James, Quirke and McBride-Henry (2013) New Zealand	Staff perception of patient discharge from ICU to ward-based care	Nursing in Critical Care	To explore nurses' experiences of the discharge process from ICU to the ward environment.	Exploratory descriptive design adapting a questionnaire based on Whittaker and Ball's research on ICU patient handover. Analysis using a descriptive thematic approach. Sample: 45 ICU and 47 ward nurses Setting: cardiothoracic and surgical wards		Communication emerged as an overarching theme and four subthemes which surfaced were used to sort nurses' views on handover including 1. What to communicate 2. How to communicate 3. Written communication 4. Communication with patients and families <u>Key findings</u> written and verbal communication needs differ dependent upon setting and the timing of a discharge. Timing of handover also requires negotiation	<u>Conclusions</u>: Being able to negotiate the timing and nature of handover is important for nurses. In addition, standardized approaches to communication are believed to enhance patient safety. <u>Relevance to clinical practice</u>: Standardized handover, with content and processes that are mutually negotiated, is crucial to providing the safest environment for patients.
4. Manookian *et al.* (2015) Iran	The lived experiences of intensive care patients on transfer to general ward	Nurse Practice Today.	To discover the lived experiences of patients transferred from the intensive care unit (ICU) to a general ward, to reach a deeper	Qualitative study with an interpretative phenomenological approach, conducted at hospitals affiliated to universities,		The findings revealed that the ICU patients experienced various feelings during the process of transition to a general ward. In this regard, three main themes were	The findings of the present study showed that recognizing and focusing on each patient's individual needs, emotions, and expectations is essential to provide more holistic and patient-centred care during

			understanding of this phenomenon.	and private hospitals. 18 participants Purposefully selected for face-to-face and semi-structured interviews. Setting: general wards		identified: "happiness of return" (consisted of three subthemes: "return to living," "return to family," and "return to a general ward"); "separation anxiety" (consisted of two subthemes: "anxiety of separation from the equipment" and "anxiety of separation from ICU staff"); and "spiritual development" (consisted of two subthemes: "being thankful to God" and "well-wishing toward others").	the process of transition from ICU to a general ward. Accordingly, there is a potential need to develop structured and formal discharge planning in the clinical settings
5. Strahan and Brown (2005) UK	A qualitative study of the experiences of patients following transfer from intensive care	Intensive and Critical Care Nursing	To gain some understanding of the lived experience of being transferred from ICU so that nursing care can be planned and delivered more appropriately.	Qualitative phenomenological study using Husserlian approach and Colaizzi method of data analysis Audio-taped open-ended interviews 3–5 days after discharge from ICU		Three major themes emerged: 1. physical response involving sleep, digestion and mobility; 2. psychological or emotional response involving positive feelings, negative feelings and family; and 3. provision of care involving	<u>Implications for nursing practice</u> 1. Opportunity should be offered to discuss memories and nightmares, both real and hallucinatory 2. Patients should be encouraged to re-adopt their 'normal' sleep pattern 3. Education regarding rehabilitation and diet is essential 4. -Nursing interventions should aim at

				Sample: n=10 (7 Males and 3 females)—all post-ICU patients selected purposively. Setting: General ward (trauma, vascular, neurology /neurosurgery, thoracic and orthopaedic)		experience of moving from ICU to the ward, need for information and care management	maximizing patient control and help towards reducing anxiety levels 5. The need for patient information, explanation and reassurance is real 6. Families should be more involved in care and rehabilitation process 7. The position of a follow-up nurse to co-ordinate care for patients after discharge from intensive care would be beneficial
6. Chaboyer, Thalib *et al*. (2007) Australia	The effect of an ICU Liaison Nurse on patients and family's anxiety prior to transfer to the ward: An intervention study	Intensive and Critical Care Nursing	The aim of this study was to identify the effect of an ICU LN on anxiety experienced by patients and their families just prior to transfer to the ward.	Quasi-experimental: block intervention study with repeated before and after design; nonrandomized This block intervention study used a repeated before and after design, with the first control and intervention periods of 4 months, a wash-	A standard transfer protocol was followed during the control periods whereas during the intervention periods, the LN prepared patients and their families for transfer to the ward. The State Trait Anxiety Form Y (State) was used to measure anxiety just prior to physical relocation to the ward.	There was no difference in anxiety scores between the control and intervention groups in either patients or family groups. This study did not demonstrate a statistically significant beneficial effect of the LN in terms of pretransfer anxiety.	<u>Nursing implication</u> The study highlights several methodological issues that must be considered for future research including sample size estimates, timing and measurement of transfer anxiety and finally the intervention itself.

				out period of 1 month, and then a second control and intervention period of 4 months duration. That is, after 4 months of control and another 4 months of intervention, the LN services were withdrawn and no data collection occurred for a month (wash-out) then a second set of 4-month blocks of control and intervention were undertaken. A total of 115 patients (62 control, 53 intervention) and 100 families (52 control, 48 intervention) were enrolled in the study. All families present at time of study participated (100%)			

				Setting: ICU			
7. Gustad, Chaboyer and Wallis (2008) Australia	ICU patient's transfer anxiety: a prospective cohort study	Australian Critical Care	The purpose of this study was to quantify the levels of anxiety experienced by Intensive Care Unit (ICU) patients just before transfer to the ward and then twice after transfer to the ward in order to test the hypothesis that anxiety levels would change over the three data collection periods.	Quasi experimental: prospective repeated measure cohort study A prospective, repeated measure cohort study. Subjects: All adult ICU patients who remained in ICU for greater than 24 h were eligible for the study 35 patients Response rate: 64% Setting: Level 111 ICU	The ICU had a structured discharge process and a full-time Monday to Friday LN but did not have a medical emergency team at the time of the study. Measurements of anxiety were undertaken using self report on the anxiety subscale of Hospital Anxiety and Depression Scale (HADS-A) on three occasions; after patients were told of their imminent transfer to the ward (Time 1), after 4 h on the ward (Time 2) and after one night on the ward (Time 3)	In the 3 months of study 249 patients were admitted to the ICU. However, only 55 (22%) patients were eligible to participate and 44 (80% of the eligible patients) consented. Thirty-five patients (64% of eligible patients) completed all measurement points and represent the final sample. The mean anxiety levels remained low at all measurement points and did not change over time. Anxiety was present in six (17%) patients at Time 1, in three (6.8%) patients at Time 2, and in two (4.5%) patients at Time 3.	<u>Conclusion:</u> This small study provides a start to the prospective mapping of anxiety levels on time of transfer and shortly after transfer from an ICU to the wards. It also provides information to researchers who want to examine ICU transfer anxiety. By understanding the anxiety experienced by ICU patients, nurses are better able to provide psychological support and thus more holistic care to this group of patients.
8. Mitchell and Courtney (2005a) Australia	An intervention study to improve the transfer of ICU patients	Australian Critical Care	Examined the efficacy of a structured individualized method of patient	Quasi experimental comparative design.	The intervention for this study consisted of a written brochure individualised by the bed-side nurse to prepare families for	Outcome measured within 24 hours of transfer to general care area were satisfaction with information and preparedness for transfer	<u>Conclusions and recommendation</u>: This study supports the introduction of a two-tiered approach to sharing information with family members prior to transfer.

	to the ward evaluation by family members		transfer from the perspective of families	Purposive sampling of family members. Control (n=80) and intervention group (n=82). Response rate: 100% Setting: ICU	imminent patient transfer from ICU The brochure contained sentences that acted as prompts for ICU nurses and covered five areas: transfer plans, ward information, staff information, expectations in the general ward, and support services for family members	-The intervention group of family members experienced significantly higher levels of satisfaction with the information given to them before transfer from ICU than did the control group (p=.015). -The intervention group also recorded significantly higher scores when their level of understanding of information was evaluated (p=.002) and they felt significantly more prepared for transfer than those in the control group (p=.001). -The intervention group was informed as transfer plans were being made significantly more than those in the control group (p<.0001) and had fewer worries with the information given to them (p=.002).	The face-to-face communication and individualized brochure for the family contributed significantly to families' satisfaction, preparation and communication about patient transfer and is thus recommended.
9. Tel and Tel (2006)	The effect of individualized education on the	Heart and Lung	The study determines the effect of individualized	Quasi-experimental study.	Individualized education.	Relatives and patients in the CCU experienced anxiety on the second day of	<u>Conclusion</u> Patients in the CCU and their relatives experience anxiety. An individualized

Turkey	transfer anxiety of patients with Myocardial Infarction and their families		education on the anxiety level of patients with myocardial infarction and their families who are being transferred from the coronary care unit (CCU) to the general care unit.	Experimental and comparison groups in a CCU of a teaching hospital. Block intervention (intervention or standard care delivered to all patients for a specific period of time). Included 90 patients with myocardial infarction and 90 relatives of the patients (100%). Setting: Critical care unit	Data were collected using a personal characteristics information form, a disease information form, and the Spielberger State-Trait Anxiety Inventory (STAI). The disease information form was used to determine the patients' need for information about the nature of their illness; causative factors of the illness; treatment; and changes that need to be made in activities of daily living after the illness	admission and on the day of transfer. There was a statistically significant difference between the experimental and comparison groups with respect to the level of anxiety for the patients and their relatives on the second CCU day and on the day of transfer (P _ .01).	education program is effective in decreasing the anxiety of patients and their relatives when the patients are transferred from the CCU to the general care unit. <u>Recommendations</u> 1. Patients should be evaluated emotionally on admission to the CCU and at routine intervals. 2. An individualized educational program focused on meeting the needs of patients and their relatives, and a CCU transfer policy should be developed.
10. Yun *et al.* (2017) Korea	Development and effects of a transition nursing program for patients and family caregivers at a Neurological ICU in Korea	Clinical Nursing Research	To develop a transition nursing program for patients and family caregivers in neurological intensive care units (ICUs) and to evaluate the effects of the program	pre- and post-test quasi-experimental design. Literature review, focus group interviews, analysis of medical records, confirmation of validity, and	ICU LN who played roles in staff education and support, ward liaison, patient care and support, and family education and support. Consultation/cooperation and leadership	-The results showed that patients and family caregivers in the experimental group had significantly higher transition readiness and satisfaction with transition nursing and lower transition anxiety and transition stress, and family caregivers in the experimental	I<u>mplications</u> When developing the program, consideration should be given to the requests and opinions of patients, their caregiver families and ICU personnel participating in the program

				clinical applicability were used to develop the program Experimental group (46 patients and their family caregivers) Control group (48 patients and their family caregivers) Response rate: 100% Setting: Neurological ICU	The experimental group received the developed program before transferring from the neurological ICU to a ward, whereas the control group received routine care.	group had a significantly lower burden of caregiving. -transition nursing program for neurological ICU patients and family caregivers increased their awareness and engagement in transition and facilitated transition conditions to induce positive response patterns and contribute to successful transition experiences	
11. Ludin, Parker and Arbon (2014) Malaysia	A survey of Malaysian critical intensive care unit nurses' awareness of patients' transition experiences (PE) and transitional care practice (TCP)	Intensive and Critical Care Nursing	To examine CICU nurses' awareness of patients' transition experiences and transitional care practice in Malaysia	A descriptive questionnaire was used to survey Registered Nurses in seven CICUs in four hospitals in Malaysia. Data were analyzed using descriptive statistics and correlation analysis.		The respondents' mean age was 29.6 years. Most of the respondents were from public hospitals and the majority had one to five years' experience working as Registered Nurses, and in CICU. Public teaching hospital nurses had greater awareness of patients' transition experience (PE) ($p < 0.05$), and of	<u>Conclusion:</u> CICU nurses need targeted transition education to enable them to anticipate patients' transitional experiences and to provide appropriate transitional care, particularly for public hospital nurses. -Nursing schools need to integrate more content about critically ill patients' transition experiences into the curriculum, to ensure graduate nurses will be able

				The survey had a response rate of 65.2% (178 of 273 eligible nurses). Setting ICU		transitional care practice (TCP) ($p < 0.05$) than public hospital nurses. Nurses with >10 years Critical Intensive Care Unit experience ($p < 0.05$) had greater awareness of both PE and TCP ($p < 0.05$). Attending a course of any kind did not affect nurses' awareness in both PE and TCP ($p > 0.05$). There was a positive correlation between nurses' awareness of patients' transition experience and its impact, and their awareness of transitional care practice performance ($rs = 0.42$, $p < 0.05$).	to anticipate the patients' experience and provide appropriate transitional care.
12. Mitchell and Courtney (2005b) Australia	An intervention study to improve the transfer of ICU patients to the ward evaluation by ICU nurses	Australian Critical Care	Examined the efficacy of a structured individualized method of patient transfer from the perspective of Intensive Care Unit (ICU) nurses.	Single-centre evaluation study using a nine-item to appraise ICU nurses' perception of the usefulness of the structured transfer brochure to improve patient transfer from ICU to a general ward.	Clinical ICU nurses using a pre-transfer brochure to support and structure their discussion with family members about planning for patient transfer. The areas included in brochure were: transfer plans for the	Respondents considered that the transfer process constituted a significant event for families who they considered fundamental to patient recovery. Communication about patient transfer was acknowledged as a	<u>Conclusions</u>: These positive results suggest that the ICU nurses felt supported by the brochure in their role of transferring patients. -The topics covered promoted discussion and improved communication with family members. -Further research with a larger sample size and

				Sample: Of the original sample of 120 ICU nurses, 40 used the intervention and 33 completed the questionnaire Response rate: 60.83 % Setting: ICU	patient, ward information, staff information, patient expectations in the general ward and support services for family members. All transfers were conducted using the same method to provide consistency	sometimes-overlooked aspect of ICU nurses' role. The nurses considered that the structured intervention assisted them by supporting and directing their discussion about patient transfer with family members. Around 95% of respondents indicated it provided a useful framework for them to use and recommended its introduction for all patient transfers from ICU.	multisite design is recommended to further examine the efficacy of this intervention to the broader community of ICUs.
13. Zakerimoghadam *et al*. (2016) Iran	A prevalence of anxiety in the process of transferring patients from cardiac surgery intensive care unit to the general ward	Critical Care Nursing Journal	To evaluate the prevalence of anxiety in patients transferred from the intensive care unit to the general ward.	Cross-sectional study. Samples: 110 patients transferred from the intensive care unit to the general ward. Spielberger's questionnaire was used to collect data. To analyze the data, the SPSS version 16	-	There was only a significant relationship between gender and anxiety. Statistical data showed that 63.6% of patients had moderate anxiety.	<u>Conclusions:</u> According to the study, the subjects had high levels of anxiety, thus providing a platform for learning how to deal with anxiety seems to be required for these patients. The study also found that being female is directly related to the level of anxiety in these patients. Therefore, more attention to females during transfer from the intensive care to the general ward is important.

				software was used. Response rate: 100% Setting: General ward			
14 Mitchell and Courtney (2005b) Australia	Improving transfer from the intensive care unit: the developmenta nd implementatio n and evaluation of a brochure based on Knowles' adult learning theory	International Journal of Nursing Practice	To develop a brochure with relevant information about patient transfer for ICU nurses to use in face-to-face communication with family members	A mixed design was used to collect data from families and nurses. Quasi-experimental: evaluation and intervention study using mixed design for data collection Family members: intervention group, n = 82; control group, n = 80 ICU nurses (n = 33) Setting: ICU	The brochure was designed within Knowles' Adult Learning Theory framework and developed using a multidisciplinary team.	The brochure helped nurses to address the individual family's issues during transfer from ICU; 95% of nurses (n = 33) recommended its introduction for all future transfers. Family members (n = 82) who received the brochure as part of their transfer were significantly more satisfied with all aspects of transfer than were those who experienced ad hoc transfer methods (n = 80).	These results provide strong support for Knowles' Adult Learning Theory as an educational foundation for adult learning.

4.6 PRESENTATION OF FINDINGS

The review was confirmatory/quantitative mixed in nature, as the quantitative component of the included studies dominated (Pluye *et al*., 2011). Additionally, there were no relevant experiences of the medical team identified, suggesting that transitional care is primarily a nurses' responsibility (Watts and Gardner, 2005).

4.6.1 Patients' and families' experiences with ICU transitional care

Two phenomenological qualitative studies established that patients experienced anxiety under five psychosocial related themes: (a) *emotional response* referring to patients having positive feelings about life and independence, negative feelings from anxiety and inability to cope with life, and family referring to the patients' worry that their families were strained with critical illness; (b) *provision of care* referring to their concerns regarding moving from ICU and lack of emotional preparation for transfer and ward environment (Strahan and Brown, 2005); (c) *happiness of return* to living, family, and to a general ward; (d) *separation anxiety* from equipment and ICU staff; (e) *spiritual development* comprising being thankful to God and well-wishing toward others (Manookian *et al*., 2015).

Gustad, Chaboyer and Wallis (2008) non-randomised study quantified the level of anxiety immediately after informing patients of their transfer to the ward, after spending four hours on the ward and after a night on the ward, and 17%, 6.8% and 4.5% of patients experienced anxiety at the respective times. The results showed that transition anxiety was highest immediately after patients received word of their transfer to the ward and less after about 24 hours in the ward.

On evaluating the prevalence of their anxiety, there was only a significant relationship between gender and anxiety in the patients from ICU. Being female was directly related to anxiety in patients, and 2.8 times higher than in males (Zakerimoghadam *et al*., 2016). Statistical data showed that 63.6%, 4.6% and 30% of patients had moderate, high and low anxiety respectively before the ICU transfer.

4.6.2 Multidisciplinary teams' experiences with ICU transitional care

The quantitative descriptive study (Ludin, Parker and Arbon, 2014) revealed that increased critical care experience positively influenced nurses' awareness and understanding of patients' transition experience and quality of the transitional care practice. Ludin, Parker and Arbon (2014) indicated that:

Public teaching hospital nurses had a greater awareness of patients' transition experience (PE) ($p < 0.05$), and of the transitional care practice (TCP) ($p < 0.05$) than public hospital nurses. Nurses with >10 years of Critical Intensive Care Unit experience ($p < 0.05$) had greater awareness of both PE and TCP ($p < 0.05$). Attending a course of any kind did not affect nurses' awareness of both PE and TCP ($p > 0.05$). There was a positive correlation between nurses' awareness of patients' transition experience and its impact, and their awareness of the transitional care practice performance ($rs = 0.42$, $p < 0.05$). (P.196).

Two qualitative studies described ICU and ward nurses' experiences of ICU transitional care through two major themes: *"communication*" (James, Quirke and McBride-Henry, 2013, p.301) and "*ICU patients' transition—a great responsibility and a huge challenge"* (Enger and Andershed, 2018, p.289). Communication included what to communicate when ward nurses were expected to be supplied with comprehensive and specific physical assessment information by the ICU nurses; attitudes to handover and communication concerned with how communication was conducted between units for the ward nurses to display negativity when receiving patients and for ICU nurses to be viewed as bad listeners and harsh; written communication where ICU nurses were overwhelmed with transfer of too detailed information from ICU to ward charts, which ward nurses were happy to get as it guided them in care provision; communication with patients and families, where ICU nurses indicated they had adequately prepared patients and their families to anticipate reduced care levels in the ward, while the ward nurses noted they were inadequately prepared (James, Quirke and McBride-Henry, 2013). The emphasis was that ICU and wards had different communication needs regarding transfer activities, such as the timing of transfer and handover content and processes.

The theme I*CU patients' transition—a great responsibility and a huge challenge* resulted from nurses struggling with care for critically ill patients due to inability to cope with care demands and poor communication between ICU and the wards. Similarly, patients struggled to stay in the wards due to their unpreparedness for the ICU transfer (Enger and Andershed, 2018).

4.6.3 Strategies for facilitating ICU transitional care

These are implemented strategies in the included studies to facilitate the transitional care; however, there are also recommendations from authors referenced by included studies. The relevant psychosocial transitional care strategies identified by the review included:

- Ward nurses should encourage patients and families to discuss their ICU memories and nightmares; nursing interventions should aim at maximising patients and families' control and help towards reducing anxiety levels; patients and families should be more involved in care, and use a follow-up nurse to co-ordinate care after ICU transfer (Strahan and Brown, 2005);
- Transfer should be structured and formally planned while taking into account spiritual care (Manookian *et al*., 2015);
- Nurses should understand anxiety experienced by ICU patients and families to guide them in the provision of psychosocial care (Gustad, Chaboyer and Wallis, 2008);
- More attention should be paid to female patients and families during ICU transfer (Zakerimoghadam *et al*., 2016);
- ICU and wards should have "standardised handover, with content and processes that are mutually negotiated" (James, Quirke and McBride-Henry, 2013, p.297) to ensure a smooth transition;

  Ward nurses should be given enough "time to prepare and make agreements with the ICU nurses before the transfer of the patient (Enger and Andershed, 2018).
- ICU nurses should escort transferred patients to the wards to enhance dialogue on further treatment; ICU nurses should visit patients and their families in the ward (Enger and Andershed, 2018).
- Enhance "interdisciplinary cooperation and communication between units" (Enger and Andershed, 2018, p.193).

- Patients and families should be evaluated emotionally on admission to ICU and at routine intervals; ICU nurses should provide an individualised educational programme on meeting the needs of patients and families, and develop a CCU transfer policy (Tel and Tel, 2006);
- ICU nurses should use structured written information to guide their discussion of transfer with patients and families, which should be given to them for reference Mitchell and Courtney, 2005a, 2005b, 2005c);
- Introduce the services of a CCON to visit each patient prior to ICU transfer, review patients on the wards and conduct clinical education with junior and inexperienced nursing staff (Athifa *et al*., 2011) as well as patients and families;
- Introduce the services of an ICU LN to facilitate the implementation of ICU transitional care (Yun *et al*., 2017);
- Ward nurses should identify patients and families at high risk for anxiety and ask about their feelings of the transfer from ICU (Chaboyer, Thalib *et al*., 2007).

4.7 DISCUSSION OF REVIEW FINDINGS

The transfer from ICU to the ward is a stage of the patient's recovery process, which is supposed to bring happiness to the patients, families and care providers (Enger and Andershed, 2018). However, this review revealed the ICU transfer generated both positive and negative feelings and experiences before, during and after transfer, similar to that of (Bench and Day, 2010; Odell, 2000; Strahan and Brown, 2005). Patients and families were happy with the transfer to the wards to be able to spend more time together, as the restrictive family visits in ICU deprived them of the opportunity to provide emotional support to their relatives (Manookian *et al*., 2015). Strahan and Brown (2005); Cullinane and Plowright (2013); Chaboyer, Kendall *et al*. (2005) considered family support for ICU patients to be of great importance and recommended that facilities for families to interact with and support patients in ICU should be made available. However, Eriksson and Bergbom (2007), in their study conducted in Sweden, showed that frequent family visits did not yield positive outcomes, which could possibly be due to cultural differences among countries.

The review revealed that the feelings of happiness were partial as patients and families were anxious with ICU transfer due to feelings of insecurity and uncertainty about the ward

experience (Chaboyer, James and Kendall, 2005; James, Quirke and McBride-Henry, 2013; Lin *et al*., 2013), largely due to lack of readiness for the experience from inadequate transfer preparation (Gustad, Chaboyer and Wallis, 2008). Separation from ICU personnel and equipment were some of the causes of the anxiety feelings. Patients and families regarded ICU as a safe and secure environment, and when told they were being transferred out, they felt insecure and anxious (Chaboyer, James and Kendall, 2005; McKinney and Melby, 2002) due to ignorance of what to expect in the wards.

The level of anxiety in the present review ranged from low to moderate, similar to O'Brien *et al*. (2001), and McKinley and Madronio, (2008). However, the levels of anxiety of patients from previous studies were higher than the ones reported in the review, for example, there were 75% and 37% in (Frazier *et al*., 2002 and Rattray, Johnston and Wildsmith, 2005) respectively. The low levels of anxiety in this review could have resulted from the support provided by a LN (Chaboyer, Foster *et al.*, 2004a; Chaboyer, Foster *et al.*, 2004b) through follow-ups in the wards of transferred patients and their families, which helped them to reflect on their experiences and make sense of the situation, thereby reducing anxiety. The LN also helped to reduce anxiety by improving communication between the ICU and the wards while supporting both units through the process of patient transfer (Chaboyer, Foster *et al*., 2002; Endacott and Chaboyer, 2006) which subsequently improved their interaction with patients and families and reduced the feelings of anxiety.

Spiritual development in this review was one emerging theme that helped patients to cope with the stress of transfer to the ward, congruent with that of (Papathanassoglou and Patiraki, 2003), who found that ICU patients experience some kind of transformation of their spirituality as a result of critical illness, and it is crucial for their effective adjustment and adaptation (McColl *et al*., 2000; Zeilani and Seymour, 2010). One Iranian study found that religious beliefs helped patients to make sense of their current situation by considering it as a test from God and an opportunity to be close to God (Zeilani and Seymour, 2010). Spirituality enhances psychosocial support and security in human beings more especially during a crisis (Asadzandi *et al*., 2011; Cheraghi, Manookian and Nasrabadi, 2014). Integration of spiritual care into ICU transfer planning should be ensured for the provision of a holistic ICU transfer plan (Galvin, 2010), which requires a formal structured plan for patients' transfer to the wards.

The review also established that communication regarding ICU transfer was overall poor, which resulted in poor ICU transfer preparation, anxiety, decreased satisfaction with care in patients and families, as well poor perception of each other's role in ICU transfer. The areas of concern included communicating the timing of the transfer; what to communicate with the handover; how to communicate amongst ICU and the ward nurses; communication with patients and families. These findings are similar to the studies of Hellesø, Lorensen, and Sorensen (2004) and Häggström, Asplund and Kristiansen (2009), which reported inconsistencies in communication, especially regarding the completion of information details. Good communication between ICU and ward nurses helps to ensure a good transfer plan, including negotiations for transfer times and thorough handovers, all necessary to guide patient care in the wards (Ball, 2005; Haines and Coad, 2001; Whittaker and Ball, 2000).

With regard to communication with patients and families, the ward nurses believed the ICU nurses did not give patients and families adequate information about what to expect in the wards, while the ICU nurses' perspective was that they supplied adequate information about ward experiences. Patients and families displayed signs of having received inadequate preparation for their ward stay. Comprehensive communication/information ensures that patients and families are adequately prepared for ward stay, understand the situation leading to realistic expectations of care in the wards, and experience less feelings of anxiety, while the ward nurses would feel adequately prepared to receive and provide transitional care to the patients and families Mitchell and Courtney, 2005b; Paul, Hendry and Cabrelli, 2004). To enhance the nurses' fulfilment of their caring responsibilities, communication inconsistencies between ICU and ward nurses and with patients and families should be minimised by standardising transfer, structuring communication and supporting ward nurses with (Joint Commission on Accreditation of Healthcare Organizations, 2005; National Institute for Health and Clinical Excellence [NICE], 2007a). Efficient and timely transition of care reduces anxiety and increases satisfaction with the care in both patients and families (Park *et al*., 2010) and reduces conflict between ICU and ward nurses.

The review established that TCP, which includes transfer planning, was directly related to the experience of the nurses, similar to Chaboyer, Foster *et al*., (2002) and Watts, Gardner and Pierson (2005) both of whom established that the lack of experience resulted in poor transfer planning. In the review, it was found that experience increased the nurses' awareness

of the TCP as experience equipped them with appropriate transitional care knowledge and skills (Aiken *et al*., 2003; Blegen, Vaughn, Goode, 2001). The nurses need to understand patients' transition experiences in order to provide better transitional care (Endacott and Chaboyer, 2006). Ward teams should be helped to recognise and understand patients and families' psychosocial and emotional needs (NICE, 2007a) which can be achieved through ICU visits (Forsberg, Lindgren and Engström, 2011) to enable them to gain the experience necessary for care provision. Although both units have shortfalls in relation to the provision of the transitional care, generally ICU is better than the general wards.

In the review, one study established being female was directly related to anxiety in patients compared to being male, similar to findings from (Brodsky-Israeli and DeKeyser Ganz, 2011). The authors concluded that nurses should be especially aware of an increased risk for transfer anxiety in females among other vulnerable populations, and further recommended that interventions should specifically target them in order to decrease its prevalence.

This review suggested several individual strategies to facilitate the transition of care from ICU to the ward; however, they all primarily seemed centred around improving communication or information with/for patients and families and employing services of a LN. Improved communication/information, to facilitate ICU transition of care, was established by (Son, 2009) and (Yun *et al*., 2017), who found that patients and families experienced adequate transfer preparation and increased satisfaction with care after the implementation of an informational transition nursing programme. In the review, the use of individualised communication with patients and families, using information brochures, was particularly advocated for to help nurses structure their discussions to meet the specific needs of patients and families, as indicated by (Chaboyer, Foster *et al*., 2002 and Mitchell and Courtney, 2005a, 2005b, 2005c). Communication with patients and families can be challenging as the nurses are usually pre-occupied with increased physical care demands for survival (Chaboyer, Foster *et al*., 2002), limiting their ability to meet information needs (Mitchell and Courtney, 2005a; Watts, Gardner and Pierson, 2005), which are important in facilitating patient recovery (Watts, Pierson and Gardner, 2006; Whittaker and Ball, 2000). Communication as a strategy of the transitional care before, during and after ICU transfer improves knowledge and comprehension of the situation in patients and their families, which

subsequently reduces anxiety and increases satisfaction with care among other health outcomes (Azoulay *et al*., 2002; Hofhuis *et al*., 2008; Linton, Grant, Pellegrini, 2008).

In supporting the use of a LN to facilitate ICU transition of care, Chaboyer, Foster *et al*. (2004b) indicated that the ICU LN educates and supports ICU and ward nurses, cares for and supports patients, educates and supports families and acts as a ward liaison. Lee *et al*. (2007) added that an ICU LN offers consultation/cooperation and leadership services to the nurses, which seeks to be centred around improved communication as well. Using services of an ICU LN in this review seemed to have helped in the reduction of the transition anxiety in patients and families. This was similar to the findings of (Yun *et al*., 2017) who also showed that patients and families in the experimental group had lower transition anxiety and significantly higher satisfaction compared to the control group, and those of Son (2009), in which the transition stress decreased after ICU patients received transition nursing involving the services of an ICU LN. However, Chaboyer, Thalib *et al*. (2007) found that the ICU LN services did not yield a significant effect on patients or families' pre-transfer anxiety, contrary to the common belief that information and support provided by the LN would reduce anxiety in patients and their families (Chaboyer, Foster *et al*., 2004b; McKinley *et al*., 2002). This finding may mean that additional information provided by the LN did not respond to the specific needs of patients and families, which is crucial for effective reduction of anxiety

4.8 SUMMARY OF CONCLUSIONAL STATEMENTS ARISING FROM THE INTEGRATIVE LITERATURE REVIEW

This chapter presented review findings from primary studies on transitional care experiences for patients and families and ICU and ward nurses in addition to strategies used to facilitate the care before, during and after ICU transfer.

4.8.1 Summary of Key Findings from Patients and Families' Experiences

The review results revealed:

- Patients and families experienced anxiety.
- Being female was directly related to anxiety.
- Patients and families were not prepared for changes in the level of care in the wards.
- Patients experienced the happiness of return to living, family and a general ward.
- Patients and families experienced separation anxiety from the equipment and from ICU staff.
- Patients experienced spiritual development comprising being thankful to God and wishing toward others.

4.8.2 Summary of Key Findings from ICU and Ward Nurses' Experiences

Regarding the ICU and ward nurses, the review revealed:

- Increased critical care experience positively influenced the provision of the transitional care.
- Communication between ICU and ward nurses, as well as with patients and families, was poor.
- ICU patients' transition was a great responsibility and a huge challenge especially to ward nurses.

4.8.3 Summary of Key Findings from Strategies for Facilitating ICU Transitional Care

Strategies for facilitating ICU transitional care identified in the review included the following:

- patients and families should be evaluated emotionally on admission to ICU and at routine intervals;
- nursing interventions should aim at maximising patients and families' control;
- increase communication with patients and families;
- ICU transfer should be structured and planned;

- transfer information/education should be structured and individualised;
- more attention should be paid to female patients and families during ICU transfer;
- enhance cooperation and communication between ICU and the wards;
- ward nurses should be given enough "time to prepare and make agreements with the ICU nurses before the transfer of the patient;"
- ward nurses should visit patients in ICU prior to transfer;
- handover between ICU and wards should be standardised;
- ward nurses should encourage patients and families to discuss their ICU memories and nightmares;
- ICU nurses should follow up patients and their families in the wards.

4.9 SUMMARY

The review revealed that patients, families, ICU nurses and ward nurses all experienced anxiety and dissatisfaction with ICU transfer, mainly due to communication problems. Overall, the identified transitional care strategies reduced anxiety and increased the degree of satisfaction with care in patients and families and their readiness for the transition, supporting the need to implement them, although this review did not identify the hierarchy of their effectiveness. The objective of this review was to gather knowledge in order to verify findings obtained from phase one, a qualitative component of the whole study that was conducted to explore recently transferred patients, families and ICU and ward multidisciplinary teams' experiences with the transitional care from ICU to the ward. Overall, the findings of this review are congruent with those from phase one, which were presented and discussed in Chapter Three.

The chapter that follows presents the development and verification of the clinical nursing guideline.

CHAPTER FIVE

DEVELOPMENT AND VERIFICATION OF THE CLINICAL NURSING GUIDELINE

5.1 INTRODUCTION

This chapter is part of phase two of the study, addressing specific objective iv *"to develop a clinical nursing guideline for the transition of care from ICU to the ward,"* It is made up of three steps: develop the draft guideline, verify the draft guideline and revise it. The development of the draft guideline is based on qualitative findings from individual interviews with patients, families, ICU, and ward multidisciplinary teams conducted during phase one of the study and from an integrative literature review for documented evidence on the transition of care from ICU conducted during phase two.

5.2 DEVELOPMENT OF THE DRAFT CLINICAL GUIDELINE

This involved drafting the clinical guideline by listing recommendations and their explanations based on conclusions drawn from findings of the qualitative study (Phase1: steps 1-3) and integrative literature review (Phase 2: step 4). Since the limited guidelines for ICU transition of care reported in the literature mostly apply to developed countries, this study intended to adapt only what was relevant to the Malawian context, with input from experts including medical clinicians and academicians, representatives of the NMCM and MOH, and patients recently transferred from ICU and their families.

5.2.1 Framework for Developing the Draft Guideline

The framework for drafting the guideline had four interrelated major areas derived from findings of the interviews and the review. The framework demonstrated that safe and efficient ICU psychosocial transitional care before, during and after ICU transfer is dependent on effective provision of psychological care to patients and families, effective communication among ICU and ward nurses and with patients and families, adequate

transfer preparation of patients, families and the receiving wards, and follow up of patients and families in the wards. **Figure 5.1** displays these results.

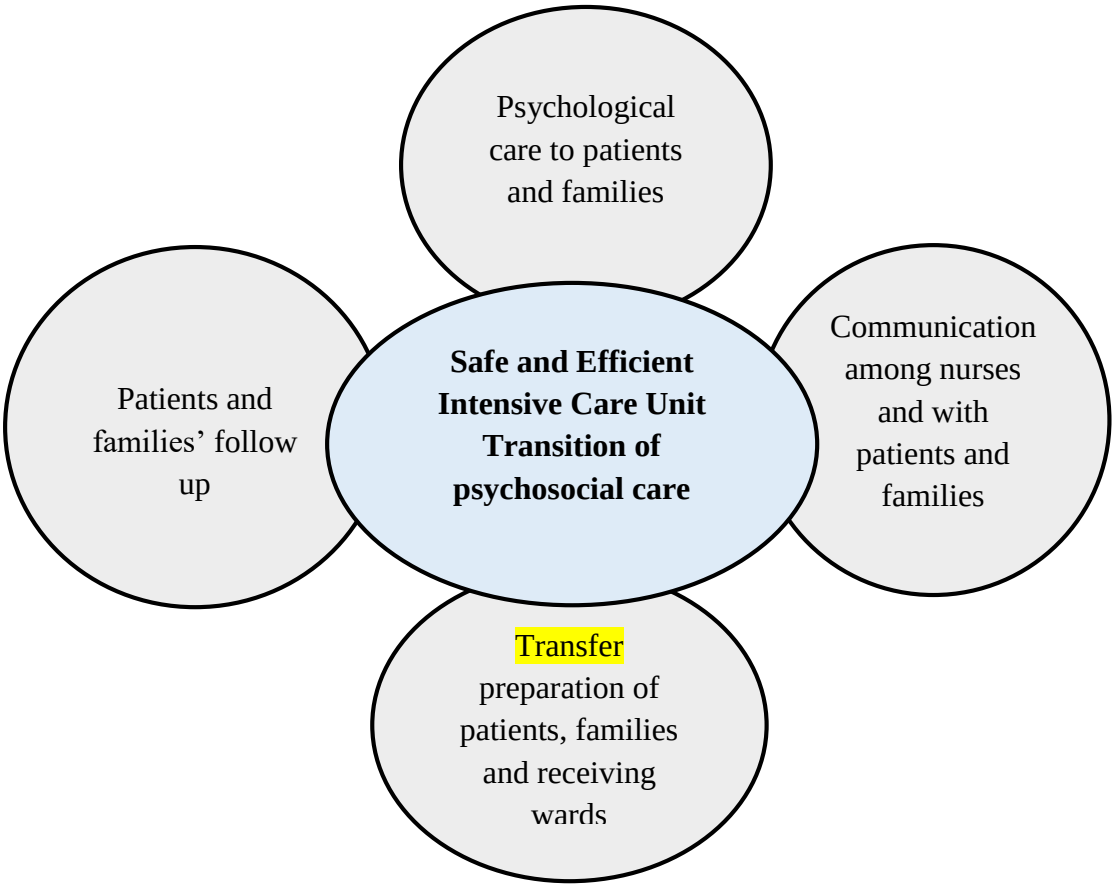


Figure 5.1: Framework for the Clinical Guideline on ICU Transition of psychosocial care

Each of the major areas of the guideline has specific recommendation statements. The recommendations do not indicate levels of evidence, a common practice with many clinical guidelines, because that was not the focus of the study (Aziato & Adejumo, 2015). **Tables 5.1** and **Table 5.2** present the key findings from the interviews and the integrative literature review for reference.

Table 5.1: Key Findings on ICU Transitional Care Arising from the Qualitative Study

A. Patients and families' Experiences Two major themes described the experiences of patients and families with transitional care from ICU to a general ward: Theme 1: *Just told transferred* • ICU multidisciplinary team did not prepare patients and families for transfer • Ward multidisciplinary team did not prepare patients and families for transfer Theme 2: *Lacking information* • ICU multidisciplinary team supplied little, non-specific or no information to patients and their families • Ward multidisciplinary team supplied little or no information to patients and their families
B. ICU Multidisciplinary Team's Experiences Four major themes described the experiences of ICU multidisciplinary team with current practice of ICU transitional care: Theme 1: *Psychosocial care is not taken into account* • The ICU multi-disciplinary team provided inadequate psychosocial transitional care to patients and their families • Although inadequate, provision of information and education to patients and families formed part of their care for continuity the care in the wards Theme 2: *we do not prepare them* • The ICU team inadequately prepared the patients and their families for transfer to the wards. Theme 3: *we have a gap* • The ICU team experienced difficulties in delivering the transition of psychosocial care to patients and their families due to lack of guidance on the process Theme 4: *we do not follow them up unless otherwise indicated* • After patients and families were transf*erred* from ICU, the team rarely followed up on them in the wards.
C. Ward Multidisciplinary Teams' Experiences Three major themes described the experiences of the ward multidisciplinary team: Theme 1: *care is a bit sub-optimal* • The transition of psychosocial care was generally sub-optimal in the wards as their focus of care was physical care. Theme 2: *have transferred your patient* • The ward team did not usually receive communication in advance regarding patients' transfer by ICU • Lack of timely communication resulted in the ward team inadequately preparing patients and/or families for ICU transfer. • Pre-transfer visits to ICU were not conducted Theme 3: *patient will be ours when here* • Patients and families were not followed up in the wards after ICU transfer
D. Suggested strategies for facilitating ICU transitional care • ICU and ward nurses should increase involvement of, communication and interactions with patients and families • ward nurses should conduct pre-transfer visits of patients and families in ICU • ICU nurses should conduct follow-up visits of patients and families on the wards • ICU nurses should provide consultative services on the ward

Table 5.2: Key Findings on ICU transitional care arising from the integrative literature review

A. Patients and families' Experiences with ICU Transitional Care • patients and families experienced anxiety • being female was directly related to anxiety • patients and families were not prepared for changes in the level of care in the wards • patients experienced happiness of return to living, family and a general ward • patients and families experienced separation anxiety from the equipment and from ICU staff • patients experienced spiritual development comprising being thankful to God and well-wishing toward others
B. ICU and Ward Nurses' Experiences with ICU Transitional Care • increased critical care experience positively influenced provision of the transitional care • communication between ICU and ward nurses as well as with patients and families was poor • ICU patients' transition was a great responsibility and a huge challenge to especially wards nurses
C. **Strategies for Facilitating ICU transitional Care included:** • patients and families should be evaluated emotionally on admission to ICU and at routine intervals • nursing interventions should aim at maximising patients and families' control • increase communication with patients and families • ICU transfer should be structured and planned • transfer information/education should be structured and individualised • more attention should be paid to female patients and families during ICU transfer • enhance cooperation and communication between ICU and the wards • ward nurses should be given enough time to prepare and make agreements with the ICU nurses before the transfer of the patient • ward nurses should visit patients in ICU prior to transfer • handover between ICU and wards should be standardised • ward nurses should encourage patients and families to discuss their ICU memories and nightmares • ICU nurses should follow up with patients and their families in the wards

The study aimed at putting in place a clinical nursing guideline for the transition of psychosocial care from ICU to the ward environment from a developing country's perspective, in order to bridge the gap between knowledge and practice. The guideline outlined only relevant interventions, which could be implemented before, during and up to one week after transfer, as guided by the study focus. **Table 5.3** presents the draft guideline.

Table 5.3: Draft Clinical Guideline for Psychosocial ICU Transitional Care

PSYCHOLOGICAL CARE TO PATIENTS AND FAMILIES	
1	When patients arrive in ICU, nurses should warmly welcome them to relieve anxiety
2	ICU nurses should respect families whenever they visit ICU
3	ICU nurses should prioritise the psychosocial care needs of patients as they attend to the physical needs
4	ICU nurses should emotionally evaluate patients and families on admission to ICU and at routine intervals to identify those at risk for anxiety. Nurses should ask them how they feel in order to understand their experience and be able to support and care for them
5	ICU nurses should pay more attention to females during transfer from ICU to the ward as being female is directly related to increased levels of anxiety
6	When giving support and care to patients and families, ICU nurses should aim at maximising their control and helping towards reducing their anxiety
7	Based on patients' and families' religious value systems, ICU nurses should facilitate the provision of spiritual care to them in order to address their spiritual and religious needs
8	Patients and families should participate in patient care
9	Ward nurses should provide a conducive environment for patients to discuss their memories and nightmares for them to come to terms with normality
COMMUNICATION	
Nurse to patient and/family communication	
1	ICU nurses should supply patients and families with information determined by nature of illness, causative factors of illness, plan of care and medical treatment, and changes that need to making in activities of daily living informed by personal characteristics and disease information
2	ICU nurses should explain to the patients and their families the equipment used in delivery of patient care to relieve anxiety
3	ICU nurses should educate patients and families regarding rehabilitation and diet specific to the patients' condition
4	ICU nurses should involve families in patient care as they take care of patients to prepare them for their continued participation in care and rehabilitation process in the ward
5	ICU nurses should allocate time to discuss care and other relevant issues with patients and families in detail to ensure adequate information giving before transfer
6	Nurses should routinely give information without waiting for patients and families to ask for it. The assumption that the staff are learned or experts in their work, prevent patients and families from asking for information
7	On arrival in the ward, ward nurses should explain to patients and families about the reason for ICU admission, reason for ICU transfer, progress in the clinical condition, that care will continue but at reduced level than they received in ICU, changes in the environment and other relevant information.

8	Ward nurses should continuously update patients and families about progress in patient condition to increase their awareness.
ICU nurse to ward nurse communication	
1	In collaboration with other team members, ICU nurses should prepare individualised patient care plans to guide care in the ward dependent on the disease information of individual patients
2	ICU nurses should come to the ward with the transferred patients to promote interdisciplinary dialogue on further treatment
TRANSFER PREPARATION	
Transfer preparation of patients and families	
1	In ICU, nurses should start preparing patients and/or families for transfer during ICU admission, soon after patient stabilisation, by informing them that their stay in ICU will be temporary and they will be transferred to the wards when the patient's condition improves.
2	ICU nurses should inform patients and families about transfer plans before the actual day of transfer to the ward takes place. Transfer from ICU should not be a surprise to patients and families
3	ICU nurses should inform patients and families to anticipate a reduction in the levels of care and a change of environment in the ward
4	Ward nurses should conduct pre-transfer visits in ICU to interact with the patients and families before their transfer to the ward to introduce themselves as providers of care in the receiving wards
5	On transfer day, ward nurses should inform families about transfer of their patients to the ward before patients are brought to the wards
Transfer preparation of the receiving ward nurses	
1	ICU nurses should communicate with ward nurses in advance about new ICU admissions and that ICU patients will be transferred to their wards to ensure that ward nurses have enough time for preparations to receive patients
2	ICU nurses should plan with ward nurses the times for transferring patients to ensure a smooth transfer process
PATIENT FOLLOW UP	
1	After transferring patients from ICU to the wards, ICU staff should conduct formal follow up of patients to ensure continuity of care
2	ICU nurses should participate in the follow up of patients in the wards
3	Patients should receive routine follow up once daily for two to three days after ICU transfer, or depending on patients' needs for proper transition of care.
4	Each day one or two staff from ICU should follow up patients in the ward to check on how they are coping with ward care.

5.3 RESULTS OF VERIFICATION OF THE DRAFT CLINICAL GUIDELINE

5.3.1 First Iteration of the Clinical Guideline Verification

Table 5.4: Expertise of the Stakeholders

Serial No.	Qualification of stakeholder	Brief remarks concerning the stakeholder
1	MPH	Ministry of Health Representative
2	PhD	Nurses and Midwives Council of Malawi Representative
3	MSc intensive care	Academic Expert with 8years of Critical Care experience
4	PhD	Academic Expert with 14years of Critical Care experience
5	MMED Anaesthesia	Clinical Expert with >4years of Critical Care experience
6	BSc N	Clinical Expert, 18 years of Critical Care experience as a manager
7	MBBS, FCS-ECSA	Clinical Expert, >10 years of experience as a surgeon.
8	Declined to disclose	Clinical Expert with 20years of Critical Care experience
9	MSc intensive care	Clinical Expert with 6years of Critical Care experience as a provider and manager
10	BSc N	Clinical Expert with 3years of Critical Care experience as a provider
11	MSc	Clinical Expert with 9years of Critical Care experience as a provider
12	Primary school-Std 5	Patient recently transferred from ICU with10 days' experience as a patient
13	Primary school- Std 2	Family of a patient recently transferred from ICU with 15 days' experience as a guardian.

Key : MSc: Master of Science; PhD: Doctor of Philosophy; MPH: Master of Public Health; Mmed Anaesthesia: Master of Medicine in Anaesthesia; MBBS (FCS-ECSA): Bachelor of Medicine Bachelor of Surgery (Fellow College of Surgeons-East Central and Southern Africa).

Thirteen key multidisciplinary internal and external stakeholders, purposively sampled in consultation with relevant authorities of their respective departments/institutions, individually verified the initial draft clinical guideline. This verification process took up three months to complete. Level of expertise of the stakeholders are displayed in **Table 5.4**.

The stakeholders verified the guideline by indicating "disagree," "agree" or "unsure" against the recommendation statements listed in the draft guideline. They agreed with most of the recommendation statements with few modifications. Their agreement rates ranged from 53.7% (n=7) to 100% (n=13). Regarding the psychological care to patients and families, the recommendation statement "ICU nurses should pay more attention to females during the transfer from ICU to the ward, as being female is directly related to increased levels of anxiety" was removed from the guideline as 53.8% (n=7) of the stakeholders disagreed with the statement while 38.4% (n=5) were unsure of it. They combined the four recommendation statements regarding "patient follow up" to form one statement because they looked fragmented and similar according to the majority of the stakeholders' comments. The major changes at this stage involved restructuring the items for clarity. All changes to the Draft Clinical Guideline are ***in italics*** as detailed in **Table 5.5.**

Table 5.5: Revised Clinical nursing guideline

PSYCHOLOGICAL CARE TO PATIENTS AND FAMILIES	
1	When *conscious* patients arrive in ICU, nurses should warmly welcome them to relieve anxiety *from the stressful environment. For unconscious patients, this should be done after they regain consciousness*
2	ICU nurses should respect families whenever they visit ICU *to reduce stress, which they experience when their relatives are admitted in ICU*
3	ICU nurses should prioritise *physical as well as* psychosocial care needs of patients *for holistic care*
4	ICU nurses should evaluate patients and families on admission to ICU and at routine intervals to identify those at risk for anxiety. Nurses should ask them how they feel in order to understand their experience and be able to support and care for them *timeously*
5	When giving support and care *after patient stabilisation,* ICU nurses should aim *to maximise patients' and families' control, helping them towards reducing anxiety and promoting their independence*
6	Based on patients and families' religious value systems, ICU nurses should facilitate provision of spiritual care to them in order to address their spiritual/religious needs, *reduce anxiety and ensure holistic care provision*
7	Patients and families should *be involved and* participate in patient care

8	Ward nurses should *facilitate provision of* conducive environment for patients to discuss their memories and nightmares for them to come to terms with normality
COMMUNICATION	
Nurse to patient and/family communication	
1	ICU nurses should *participate in/contribute to supplying* patients and families with information determined by nature of illness, causative factors of illness, plan of care and medical treatment and changes needed in activities of daily living informed by personal characteristics and disease information. *Information empowers patients and families and reduces anxiety*
2	*When admission process is over,* ICU nurses should explain to patients and their families the equipment used in delivery of patient care to relieve anxiety, *since ICU equipment is frightening*
3	ICU nurses should educate patients and families regarding rehabilitation and *other requirements specific to the patients' condition for continuity of care*
4	ICU nurses should involve families in patient care to prepare them for their continued participation in care in the ward. *Families are afraid to handle patients in the wards*
5	ICU nurses should allocate time to discuss care and other relevant issues with patients and families in detail to ensure adequate information giving before transfer. *This enhances their understanding of, involvement in and continuity of care.*
6	Nurses should routinely give information without waiting for patients and families to ask for it *to alley anxiety.* The assumption that staff are learned/experts in their work and *fear* prevent them from asking for information, *therefore they should be encouraged to ask*
7	On arrival in wards, ward nurses should explain to patients and families the reason for ICU admission, reason for ICU transfer, progress in clinical condition, that care will continue but at reduced level than received in ICU, changes in the environment and other relevant information. *This promotes realistic expectations in the ward, which are different from ICU and ensures cooperation*
8	*In collaboration with other team members,* ward nurses should continuously update patients and families about progress in patient condition to increase their awareness *and promote their right to information*
ICU nurse to ward nurse communication	
1	In collaboration with other team members, ICU nurses should prepare individualised patient care plans to guide care in the ward *including fluid requirements, nutritional needs, treatments and other important aspects of transitional care* dependent on the disease information of individual patients *for continuity of care*
2	ICU nurses should come to the ward with transferred patients to promote interdisciplinary dialogue on further treatment *OR in cases where ward staff fetch patients from ICU, nurses should do it instead of sending support staff*
TRANSFER PREPARATION	
Transfer preparation of patients and families	
1	ICU nurses should start preparing patients and/or families for transfer during ICU admission soon after patient stabilisation by informing them their stay in ICU will be temporary and they will be transferred to the wards when the patient's condition improves *for their information and understanding*
2	ICU nurses should inform patients and families about transfer plan before the actual day of transfer to the ward takes place. Transfer from ICU should not be a surprise to patients and families *as it may cause anxiety*

3	ICU nurses should inform patients and families to anticipate a reduction in the levels of care and a change of environment in the ward, t*o enhance reality as the two* areas *are different*
4	Ward nurses should conduct pre-transfer visits in ICU to interact with patients and families before their transfer to wards to introduce themselves as providers of care in the receiving wards *to build rapport, reduce anxiety and for good transfer preparation*
5	On *transfer* day, ward nurses should inform families about transfer of their patients to the ward before patients are actually brought to the ward *to enable them get ready for their move*
Transfer preparation of the receiving ward nurses	
1	ICU nurses should communicate with ward nurses in advance about new ICU admissions and that from ICU patients will be *transferred* to their wards to ensure ward nurses have enough time for preparations to receive patients.
2	ICU nurses should plan with ward nurses the times for transferring patients to ensure *availability of bed space in ward*
PATIENT FOLLOW UP	
1	*After transferring patients from ICU to wards, one or two ICU multidisciplinary team members (including nurses) should routinely conduct follow up of patients, once daily for two to three days after ICU transfer or more depending on patients' needs, to check on how they are coping and offer support.*

5.3.2 Second iteration of the Clinical Guideline Verification

These second iteration of the clinical guideline verification was in the form of receiving feedback from a dissemination meeting of preliminary study findings with 15 local stakeholders who included the hospital management, departmental and unit nursing managers of the participating units. This took place one month after the first verification but 5 days prior to the meeting. The stakeholders were asked to indicate whether or not they **agreed, disagreed or were unsure** of the recommendations statements and their rationales of the draft and the revised clinical guidelines as a group. On comparison of the two versions, the members agreed to the changes which were made during the first iteration. The major change at this level involved splitting the clinical guideline into ICU and Ward specific for easy referencing. These are detailed in Tables 5.6 and 5.7 respectively.

5.3.3 Third iteration of the Clinical Guideline Verification

Similar to the second, the third iteration was in the form of receiving feedback from a dissemination meeting of the preliminary study findings with 11 multidisciplinary health care providers from the participarting units. This round took place one week after the second

verification and 5 days prior to the meeting. The stakeholders were asked to indicate whether or not they **agreed, disagreed or were unsure** of the recommendations statements and their rationales of the draft guidelines as a group. The members agreed to all the recommendations included in the revised clinical guideline as well as to the splitting of the guideline into ICU and Ward specific clinical guidelines. The major change at this level involved addition of a preamble to each specific clinical guideline in order to provide some background information.

As there were no further contradictory observations, the consensus on the composition of the clinical guideline was considered to have been reached. However, to ensure a true reflection of the consensus, four nurses who were present at the iterations 2 and 3, who also represented the participating units finally crosschecked the contents and the flow of items in the split versions of the guideline. **Tables 5.6** and **5.7** present the split ICU specific guideline and a ward specific guideline with their preambles respectively.

Table 5.6: *Revised ICU Nurses' Clinical Guideline*

Title: *ICU nurses' clinical guideline for the transition of psychosocial care from ICU to the wards at Queen Elizabeth Central Hospital, Malawi*

Preamble: *Patient transfer from ICU can be exciting as it signals an improvement, however, it can also be a source of anxiety to patients, families and ICU nurses, and a cause of dissatisfaction with care in ICU patients and their families. Critically ill patients are highly dependent on intensive care for survival. Nurses often prioritise physical care over psychosocial care, yet it is crucial for physical recovery. Psychosocial care involves carrying out independent, dependent and interdependent nursing activities to meet informational, emotional and spiritual care needs of patients and families before, during and after ICU transfer. The development of this guideline was based on experiences of ICU patients, families, ICU and ward multidisciplinary teams and evidence from literature. To ensure relevance of the guideline, internal and external stakeholders, who included ICU patients and families, clinical and academic critical care experts, and representatives from the MOH and NMCM, verified it. The clinical nursing guideline is set as follows:*

PATIENT AND FAMILY CARE	
1	When patients and families arrive in ICU, warmly welcome them to relieve anxiety
2	On admission in ICU and at routine intervals, assess patients and families for anxiety by asking them how they feel to understand their experiences for timely psychological support
3	Attend to psychosocial care needs of patients and families to relieve anxiety as physical patient care is provided
4	Allow families to participate in patient care to prepare them for continued participation in care after ICU *transfer*. Families are afraid and anxious to handle their sick relatives while on the wards
5	Respect families whenever they visit ICU to reduce stress, which they experience when their sick relatives are admitted in ICU
6	Based on patients and families' religious value systems, facilitate accessibility to spiritual support in order to address their spiritual/religious needs and reduce anxiety
ICU NURSE TO PATIENT AND FAMILY COMMUNICATION	
1	Provide information to patients and families regarding plan of care, medical treatment and other relevant information determined by their personal characteristics and disease information without waiting for them to ask for it. Fear and ignorance prevent patients and families from asking for information
2	Encourage patients and families to ask for information as much as possible to increase their awareness and relieve anxiety
3	Explain to patients and their families the equipment used in delivery of patient care to relieve anxiety
4	Continuously and routinely update patients and families about progress and other relevant issues to increase their awareness
ICU NURSE TO WARD NURSE COMMUNICATION	
1	Guide ward nurses in care of individual patients for support and to alley anxiety
TRANSFER PREPARATION OF PATIENTS AND FAMILIES	
1	Start preparing patients and families for transfer on admission to ICU by informing them that their stay in ICU will be temporary and they will be transfer to the wards when the patient's condition improves, for their information.
2	Inform patients and families about transfer plans before actual time of transfer to the wards takes place. Transfer from ICU should not be a surprise to patients and families as it causes anxiety
3	Inform patients and families to anticipate a reduction in intensity of care, monitoring, resources and a change of general environment in the wards.
TRANSFER PREPARATION OF THE RECEIVING WARD NURSES	
1	Communicate with ward nurses in advance about new ICU admissions, as soon as the receiving ward is known, to ensure enough time for preparations to receive patients and families.
2	Negotiate with ward nurses the times for transferring patients to ensure their readiness to receiving the patients and families
PATIENT FOLLOW UP	
1	Routinely conduct patient follow up, once daily for two to three days or more, depending on patients' needs, to check on how they are coping on the wards and offer support to relieve anxiety

Table 5.7: *Revised Ward Nurses' Clinical Guideline*

Title: *Ward nurses' clinical guideline for the transition of psychosocial care from ICU to the wards at QECH, Malawi*

Preamble*: Patient transfer from ICU can be exciting as it signals an improvement, however, it can also be a source of anxiety to patients, families and ICU nurses and a cause of dissatisfaction with care in ICU patients and their families. Critically ill patients are highly dependent on intensive care for survival. Nurses often prioritise physical care over psychosocial care, yet it is crucial for physical recovery. Psychosocial care involves carrying out independent, dependent and interdependent nursing activities to meet informational, emotional and spiritual care needs of patients and families before, during and after ICU transfer.*

The bases for this guideline's development were experiences of ICU patients, families, ICU and ward multidisciplinary teams and evidence from literature. To ensure relevance of the guideline, external and internal stakeholders, who included ICU patients and families, clinical and academic critical care experts, and representatives from the MOH and NMCM, verified it. The guideline is as follows:

PATIENT AND FAMILY CARE	
1	When patients and families transferred from ICU arrive in wards, warmly welcome them to relieve anxiety
2	On admission from ICU and at routine intervals, assess patients and families for anxiety by asking them how they feel to understand their experiences for timely psychological support
3	Attend to psychosocial care needs of patients and families as physical patient care is provided to relieve anxiety
4	Allow families to participate in patient care. Families are afraid and anxious to handle their sick relatives
5	Respect families to reduce stress, which they experience when their sick relatives are admitted
6	Based on patients and families' religious value systems, facilitate accessibility to spiritual support to address their spiritual/religious needs and reduce anxiety
WARD NURSE TO PATIENT AND FAMILY COMMUNICATION	
1	Provide information to patients and families regarding plan of care, medical treatment and other relevant information determined by their personal characteristics and disease information without waiting for them to ask for it. Fear and ignorance prevent patients and families from asking for information
2	Encourage patients and families to ask for information as much as possible to increase their awareness and relieve anxiety

3	Explain to patients and their families the equipment used in delivery of patient care to relieve anxiety
4	Routinely discuss with patients and families their ICU memories and nightmares for them to come to terms with normality
5	Continuously and routinely update patients and families about progress and other relevant issues to increase their awareness
WARD NURSE TO ICU NURSE COMMUNICATION	
1	Seek guidance from ICU nurses on care of individual patients for support
2	Collect transferred patients from ICU instead of delegating support staff to facilitate effective handover communication
TRANSFER PREPARATION OF PATIENTS AND FAMILIES	
1	When ICU admission is a possibility, start preparing patients and families for ICU transfer before leaving the ward/unit by informing them that their ICU stay will be temporary and that they will be transferred to the wards when the patient's condition improves, for their information
2	As soon as the time of patient transfer from ICU is known, inform families about the plan before the patient is actually transferred to the ward. Patient transfer from ICU should not be a surprise to families as it causes anxiety
3	When back in the ward, inform patients and families to anticipate a reduction in intensity of care, monitoring, resources and a change of general environment in the wards. This enhances their understanding and acceptance of reality in the wards, promotes their independence and reduces their anxiety
PRE-TRANSFER VISITS	
1	Conduct pre-transfer visits to interact with patients and families before their actual transfer out of ICU as providers of care in the receiving wards to build rapport and reduce anxiety

5.3.4 Discussion of the Clinical Guideline

The qualitative study and the integrative review established that generally, the nurses experienced problems in providing psychosocial care to patients and their families before, during and after ICU transfer, including the reception of patients and families, respect for patients and guardians, and prioritisation of care, among others. Although seemingly insignificant, anxiety is reduced when patients and families feel welcomed, respected, approved or recognised in an environment, as the feeling helps to uplift their wellbeing (Eriksson, 2006). To help address anxiety, the study suggested that nurses in ICU should emotionally evaluate patients and families on admission and at routine intervals to identify those at risk to ensure timely support and care (Chaboyer, Thalib *et al*., 2007) and that ward staff who continue with patient care after ICU transfer should also be supported (Chaboyer, Foster *et al*, 2004b; Eliott *et al*., 2012).

In the study, patients and families experienced anxiety due to lack of transfer preparation by both the ICU and the ward nurses. Transfer preparation involves ICU and ward staff communicating/providing information, explanations, advice and support to patients and families routinely and/or on demand (Green and Edmonds, 2004; Uhrenfeldt *et al*., 2013) regarding patient condition, intensity of care and monitoring, including equipment used on patients and other expected differences between ICU and the receiving wards (Adamson *et al*., 2004). Although this is a normal expectation (Coyle, 2001; McKinley *et al*., 2002) patients and families are not communicated with (Bench and Day, 2010; Dy, Rubin, and Lehmann, 2005), as was the case in this study, which creates dependence (Walker, 2000) and feelings of anxiety (Chaboyer, James and Kendall, 2005; Cullinane and Plowright, 2013). A lack of transfer preparation gives patients and families an impression that intensive care and monitoring, which they were receiving in ICU, will continue in the wards (Russell, 2000), which places a burden on the ward nurses as they try to meet their unrealistic expectations Massey, Aitken and Wendy (2008) and offer information which may not make sense at this point. When ward nurses do not provide care as expected, patients and families feel powerless and neglected McKinney and Deeny (2002) unimportant (Bench and Day, 2010; Chaboyer, James and Kendall, 2005) and begin to yearn for the previous familiar, readily available and trusted intensive care, monitoring and the ICU nurses, resulting from their recent ICU exposure (Chaboyer, James and Kendall, 2005; Uhrenfeldt *et al*., 2013)

Adequate transfer preparation enhances patients and families' familiarisation and understanding of the ward environment (McKinney and Deeny, 2002; Pattison *et al*., 2007), the level of care and support they will receive thereby reducing their dependence (Odell, 2000), as well as misunderstandings with the ward nurses (Atwal, 2002; Chaboyer, Thalib *et al*., 2007; St-Louis and Brault, 2011). The study of (Häggström, Asplund and Kristiansen, 2012) established that adequate information during the ICU transition reduced anxiety, with patients feeling empowered and in control over their transfer and possessing prior knowledge of the ward expectations, which makes it easier for ward nurses to handle them.

As one way to enhance patients and families' familiarisation and understanding of the ward environment, care and support, the study suggested ward nurses should conduct pre-transfer visits in ICU to interact with the patients and families before their transfer to the wards. Prior interaction between ward nurses and patients and families in ICU (Coyle, 2001) would help

to establish a prior relationship and familiarisation between them (Eliott *et al*., 2012; Haines and Coad, 2001; Odell, Gerber, Gager, 2010; Williams *et al*., 2010) necessary to facilitate both the transfer and the transition processes (Chaboyer, 2006; Chaboyer, James and Kendall, 2005; Chaboyer, Gillespie *et al*, 2005; Chaboyer, Thalib *et al*., 2007). Although specific to physicians, pre-transfer interaction with patients in a study by (Li, Stelfox and Ghali, 2011) resulted in overall satisfaction with care when the receiving physicians participated in initiation of preparation of patient transfers. Similarly, in Forsberg, Lindgren and Engström (2011) study, patients felt that care and support by the familiar nursing staff in the receiving wards facilitated their transfer and the transition processes.

In the study, the approach to the delivery of information was inconsistent among individual nurses of both units due to lack of a standardised approach, which misinforms patients and families and misguides nurses in patient care (Atwal, 2002). The effectiveness of information is dependent on the content and the processes involved (Bench, Day and Griffiths, 2013). Bunn (2007) indicates that the information should include notifying the ward about the possible transfer, negotiating the time of transfer; arranging for the bed from the ward to collect patients, informing families, completing all necessary documentation and handover on patients and families' psychological care needs. Adequate information helps to increase awareness, degree of satisfaction with care, and reduce patients and families' anxiety (Rao *et al*., 2007).

To enhance information delivery, the study suggested the personalisation of information as it is more effective than when generalised (Bench, Day and Griffiths, 2013; Häggström, Asplund and Kristiansen, 2012). In addition to beginning the transfer communication early, which is congruent to (St-Louis and Brault, 2011), who indicated that as soon as patients' clinical conditions begin to improve, ICU multidisciplinary team should start preparing patients and families for their move to the ward. This is further supported (Chaboyer, Foster *et al*., 2002) study, where 50% of participants supported the initiation of transfer preparation before patients leave ICU and that it should continue even after patients leave ICU, or even overlap the care provided by ICU and the ward team both before and after patients leave ICU (Stelfox *et al*., 2013). In (Kleinpell, 2004) study, early transfer planning, although it was specific to older ICU patients, increased their level of preparation and readiness for transfer than those who were not prepared early enough. Early transfer planning helps to

organise the transition for patients and families in ICU and the wards (Chaboyer, James and Kendall, 2005; Odell, 2000), and avoids unnecessary stress in patients, families and ward nurses who continue with patient care (Whittaker and Ball, 2000), thereby enhancing continuity of patient care (Bunn, 2007).

Communication and information exchanged between ICU and ward nurses in the study also influenced ICU transfer preparation in this study. Ward nurses reported receiving inconsistent communication at handover, which compromised continuity of patient care and monitoring in the wards. This is in agreement with other studies (Hesselink *et al*., 2012; Li, Stelfox and Ghali, 2011; Perren *et al*., 2008) which reported problems with communication, coordination of care and information exchange between ICU and ward healthcare professionals. In a study by (Sexton *et al*., 2004), it was established that only 5.9% of the nursing handover content centred on patient care and management in the wards, because ICU nurses are medically oriented in their care including handover due to complexity of patient conditions and the sudden decrease in patient monitoring in the wards (Stelfox *et al*., 2013); the ward nurses focus on supporting and monitoring the patients instead (Häggström, Asplund and Kristiansen, 2009). One strategy to improving handover communication suggested by the study was that ICU nurses should accompany patients to the wards during transfer to deliver information in person to the ward nurses, which is congruent with (Harel *et al*., 2012), as it would provide room for clarification if needed.

In the study, follow up of patients and families in the wards after ICU transfer was not a formal practice. ICU nurses officially stopped caring for patients and families on exit from ICU and thereafter left all the responsibility of care and support to the ward staff. This is corresponds with (Bunn, 2007), who found that ICU staff did not see the need to follow up with patients and families after they left ICU, as they considered they had completed their critical caring responsibility. However, Engström, Andersson, and Söderberg (2008) pointed out that follow up of patients on the wards helps to coordinate care between ICU and the wards, as the patients may be transferred while still critically ill (McKinney and Deeny, 2002). Lack of patient follow up compromised care coordination in the wards in this study, causing feelings of anxiety in patients and their families. Poor coordination of transfer from ICU to the ward can be stressful and anxiety provoking to both the patients and families (Field, Prinjha and Rowan, 2008; Mitchell *et al*., 2003).

To help reduce the patients and families' stress and anxiety generated from the burden of the transfer (Lilly and Daly, 2007; Pirret, 2008), the study suggested one or two ICU staff, including nurses, should follow up with patients and families in the wards to educate and support them in their new environment. This is similar to other studies in which experienced or critical care nurses followed up ICU patients and their families in the wards after transfer from ICU (Alberto *et al*., 2014; St-Louis and Brault, 2011). During the visits nurses discussed with patients their experiences and memories of the ICU stay (Schandl *et al*., 2011), and provided patients with handled patients' concerns in addition to guiding ward staff in caring for them (Endacott *et al*., 2010; Esmonde *et al*., 2006; Odell, Gerber and Gager, 2010; Williams *et al*., 2010) and provided patients with information routinely and/or as demanded and other support (Cutler *et al*., 2003; Green and Edmonds, 2004; Samuelson and Corrigan, 2009). Nurses are considered suitable coordinators and facilitators of ICU transition (Huber and McClelland, 2003; Watts, Gardner and Pierson, 2005) as they are available to patients and families around the clock.

With regard to the frequency of follow up, the study suggested visiting patients and families at least daily for two to three days after leaving ICU, on average. Literature supports patients and families being followed up in the ward, beginning within the first 24 hours of transfer (Eliott *et al*., 2012) within the first week after transfer from the ICU (Pattison *et al*., 2007) and for a minimum of three daily visits after transfer from ICU (Alberto *et al*., 2017), or more frequently dependent on patients and families' care needs (Green and Edmonds, 2004).

5.4 SUMMARY OF CONCLUSIONAL STATEMENTS ARISING FROM DEVELOPMENT AND VERIFICATION OF THE CLINICAL GUIDELINE

5.4.1 Summary of Drafting the Guideline

- The guideline was drafted based on conclusions drawn from the findings of the qualitative study and the integrative literature review.
- The draft guideline had four interrelated major areas derived from the findings, which addressed psychological care, communication, transfer preparation and follow up.
- Each of the major areas of the guideline had specific recommendation statements for addressing it.

5.4.2 Summary of Verification of the Draft Guideline

- The draft guideline was verified by 13 internal and external stakeholders individually during the first iteration and 15 and 11 internal stakeholders during the second and third iterations respectively which were in form of hospital dissemination meetings.
- With the recommendations from the second dissemination meeting, the dividing of the draft guideline into ICU and ward specific guidelines was for easy referencing.

5.5 SUMMARY

The focus of Chapter Five was to develop and verify the clinical nursing guideline for the transition of care from ICU to the ward environment, based on findings from individual interviews from patients recently transferred from ICU and their families, ICU and ward multidisciplinary teams, integrative literature review and verification by internal and external stakeholders individually. The stakeholders included patients and families, clinical and academic critical care experts, and representatives from the MOH and NMCM. Further verification of the guideline was via two dissemination meetings with hospital staff, which resulted in two separate ICU and ward guidelines before pilot testing them.

In the next chapter, the third phase of the study presents the results of pilot testing of the revised ICU and ward specific guidelines.

CHAPTER SIX

RESULTS OF THE PILOT TESTING PHASE

6.1 INTRODUCTION

This chapter presents the results of the pre and post-intervention tests of the study, designed and developed to pilot test the implementation of the developed clinical guideline for the psychosocial transitional care from the ICU to the ward environment, which was the primary purpose of the third phase of the study. The primary outcome of this pre- and post-test was to determine the discharged ICU patients and families' level of anxiety as ascertained by the anxiety scores. The secondary outcomes determined the discharged patient's and families' satisfaction with care in the ICU and ward environment. The research objective used in this phase of the study was to:

- Pilot test the clinical nursing guideline for the transition of care from ICU to the ward

In order to achieve this objective, the results are presented in three separate parts, namely the pre-intervention test and the post-intervention test, and after that, comparisons will be drawn between the data of the pre- and post-intervention groups. The intention is to determine the extent of the effect of implementing the clinical guidelines for transitional care from the ICU to the ward environment. The sample size for the pre- and post-intervention tests was 65 (n = 65) for each test. A purposive sampling method was utilised. The study collected demographic data from recently discharged ICU patients and families' self-rating of anxiety levels and satisfaction with care in ICU and the ward environment. Structured questionnaires were used to collect data from a sample of paired (dyads) recently transferred from ICU patient and a close family member. **As patients and close family members completed one questionnaire and are therefore referred to as the participants in this part of the study**. Descriptive and comparative statistical tests were utilised to analyse the data. Statistical tests included the Mann-Whitney tests. Testing was done on the 5% level of significance ($p = <0.05$). The Statistical Package for Social Scientists (SPSS) version 26 was used to analyse the data. In addition, this chapter will also discuss the implementation process of the clinical guidelines for transitional care from the adult ICU to the general ward environment in Malawi.

6.2 RESULTS: PRE-INTERVENTION TEST

6.2.1 Demographic Data

Table 6.1: Demographic data obtained from the participants for the pre-intervention test

Characteristic	Frequency	Percentage
Age		
< 20yrs	-	-
20 to 39yrs	41	**63.1%**
40 to 59yrs	18	27.7%
60 to 79yrs	6	9.2%
>79yrs	-	-
Gender		
Male	24	36.9%
Female	41	**63.1%**
Education level		
<high school	35	**53.8%**
High school	24	36.9%
Some college	4	6.2%
University	2	3.1%
Advance degree	-	-
Previous ICU experience		
Yes	-	-
No	65	100.0%
Relationship with a family member		
Spouse	24	36.9%
Significant other	2	3.1%
Parent	3	4.6%
Son/daughter	18	27.7%
Brother/sister	18	27.7%
Family size		
None	-	-
1	4	6.2%
2 to 3	21	32.3%
4 to 6	32	49.2%
>6	8	12.3%
Distance to hospital		
In city	-	
<1hr drive	10	15.4%
1 to 3hr drive	32	49.2%
>3hr drive	23	35.4%
Visiting duration/day		
<2hrs	53	**81.5%**
2 to 4hrs	12	18.5%
4 to 6hrs	-	-
6 to 12hrs	-	-
>12hrs	-	-

The majority of family members were females under the age of 40 (63.1%; n = 41) years, respectively. The majority of them had a low level of education, as evidenced by the fact that around 54% (n = 35) did not have a high school diploma. Family members spend on average of 2 hours (81.5%) with their relatives in the ICU. **Table 6.1** presents these results.

6.2.2 Patient Clinical Information

Table 6.2: Patient information obtained from the participants for the pre-intervention test

Characteristic	Frequency	Percentage
Age		
< 20yrs	4	6.2%
20 to 39yrs	34	**52.3%**
40 to 59yrs	23	35.4%
60 to 79yrs	4	6.2%
>79yrs	-	-
Gender		
Male	34	**52.3%**
Female	31	47.7%
Reason for Admission		
Medical	-	
Elective surgery	19	29.2%
Emergency surgery	46	70.8%
Length of stay in ICU		
2 days	41	**63.1%**
3 days	18	27.7%
4 days	-	-
5 days	6	9.2%
Length of stay in Ward		
2 days	10	15.4%
3 days	23	**35.4%**
4 days	18	27.7%
5 days	14	21.5%

The patient clinical information during the pre-intervention test are depicted in **Table 6.2** The majority 52.3% (n = 34) of patients were males, and the majority were under the age of 40 (52.3%; n = 34) years. The majority 70.8% (n = 46) were admitted to ICU after an emergency surgical procedure, and the majority had a length of stay of 2 days (63%), and one third 35.4% (n = 23) had 3 days length of stay in the ward. Figure 6.1 presents a graphical display of this data.

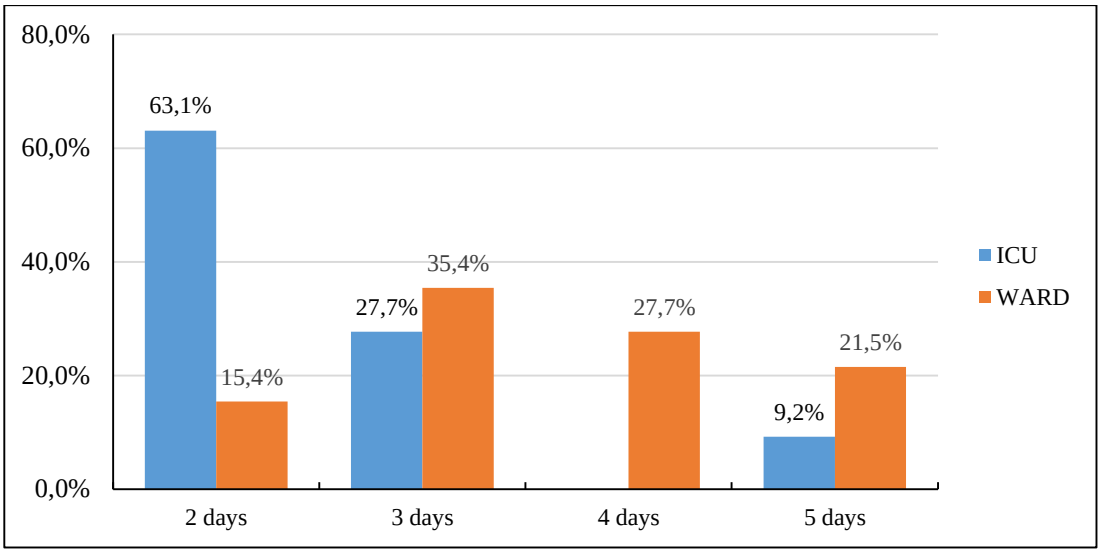


Figure 6.1: Responses for patient's pre-intervention test length of stay in ICU and ward

6.2.3 Anxiety Level (20-itemed Zung SAS)

This section of the questionnaire related to the pre-intervention assessment of the level of anxiety. When determining the level of anxiety, the 20 itemed-Zung SAS responses from the participants were used (*Appendix U, Appendix V, Appendix W, Appendix X).* Inversely formulated questions (items 5, 9, 13, 17 and 19) were reversed scored. The raw anxiety scores for the items were computed to give a total raw score for the level of anxiety, which ranged from 20 to 80 points.

Results of the frequency distributions obtained from the responses of the participants (n = 65) are displayed in **table 6.3.**

In addition, the descriptive characteristics of the 20-item anxiety measure during the pre-intervention test are shown in **Table 6.4**. During the pre-intervention test, the participants showed signs of severe anxiety (63.26 ± 6.72). The median anxiety score was 3–4, indicating that the participants were anxious a significant portion of the time, if not all of the time, during the pre-intervention test. The interquartile range (IQR) across the items on the anxiety scale was 1-2. More descriptive statistics are shown in **table 6.4.**

Table 6.3: Frequency distribution obtained from the participants for the pre-intervention test level of anxiety (20-itemed Zung SAS)

	Items	A little time		Some of the time		The good part of the time		Most of the time	
		f	%	f	%	f	%	f	%
1	I feel more nervous and anxious than usual	1	1.54%	7	10.77%	17	26.15%	40	62.54%
2	I feel afraid for no reason at all	1	1.54%	14	21.54%	20	30.77%	30	46.15%
3	I get upset easily or feel panicky	-	-	8	12.31%	22	33.85%	35	53.85%
4	I feel like I'm falling apart and going to pieces	6	9.23%	8	12.31%	16	24.62%	35	53.85%
5	I feel that everything is all right and nothing bad will happen	33	50.77%	26	40.00%	5	7.69%	1	1.54%
6	My arms and legs shake and tremble	5	7.69%	17	26.15%	20	30.77%	23	35.38%
7	I am bothered by headaches neck and back pain	6	9.23%	14	21.54%	16	24.62%	29	44.62%
8	I feel weak and get tired easily	2	3.08%	14	21.54%	17	26.15%	32	49.23%
9	I feel calm and can sit still easily	35	53.85%	24	36.92%	5	7.69%	1	1.54%
10	I can feel my heart beating fast	3	4.62%	13	20.00%	21	32.31%	28	43.08%
11	I am bothered by dizzy spills	3	4.62%	13	20.00%	19	29.23%	30	46.15%
12	I have fainting spells or feel like it	7	10.77%	16	24.62%	20	30.77%	22	33.85%
13	I can breathe in and out easily	4	6.15%	7	10.77%	21	32.31%	33	50.77%
14	I get feelings of numbness and tingling in my fingers and toes	7	10.77%	12	18.46%	15	23.08%	31	47.69%
15	I am bothered by stomach aches or indigestion	7	10.77%	10	15.38%	15	23.08%	33	50.77%
16	I have to empty my bladder often	6	9.23%	16	24.62%	17	26.15%	26	40.00%
17	My hands are usually dry and warm	24	36.92%	18	27.69%	15	23.08%	8	12.31%
18	My face gets hot and blushes	8	12.31%	14	21.54%	17	26.15%	26	40.00%
19	I fall asleep easily and get a good night's rest	37	56.92%	21	32.31%	7	10.77%	-	-
20	I have nightmares	8	12.31%	14	21.54%	16	24.62%	27	41.54%

Scale: 1=a little of time; 2=some of the time; 3=good part of the time; 4=most of the time

Table 6.4: Descriptive statistics obtained from the participants for the pre-intervention test level of anxiety (20-itemed Zung SAS)

Items		Mean	Median	Standard Deviation	Percentiles			IQR
					25	50	75	
1	I feel more nervous and anxious than usual	3.48	4	0.75	3	4	4	1
2	I feel afraid for no reason at all	3.22	3	0.84	3	3	4	1
3	I get upset easily or feel panicky	3.42	4	0.70	3	4	4	1
4	I feel like I'm falling apart and going to pieces	3.24	4	0.99	3	4	4	1
5	I feel that everything is all right and nothing bad will happen	3.40	4	0.70	3	4	4	1
6	My arms and legs shake and tremble	2.94	3	0.97	2	3	4	2
7	I am bothered by headaches neck and back pain	3.05	3	1.02	2	3	4	2
8	I feel weak and get tired easily	3.22	3	0.89	2.5	3	4	1.5
9	I feel calm and can sit still easily	3.43	4	0.71	3	4	4	1
10	I can feel my heart beating fast	3.14	3	0.89	2.5	3	4	1.5
11	I am bothered by dizzy spills	3.17	3	0.91	2.5	3	4	1.5
12	I have fainting spells or feel like it	2.88	3	1.01	2	3	4	2
13	I can breathe in and out easily	3.28	4	0.89	3	4	4	1
14	I get feelings of numbness and tingling in my fingers and toes	3.08	3	1.05	2	3	4	2
15	I am bothered by stomach aches or indigestion	3.14	4	1.04	2	4	4	2
16	I have to empty my bladder often	2.97	3	1.02	2	3	4	2
17	My hands are usually dry and warm	2.89	3	1.05	2	3	4	2
18	My face gets hot and blushes	2.94	3	1.06	2	3	4	2
19	I fall asleep easily and get a good night's rest	3.46	4	0.69	3	4	4	1
20	I have nightmares	2.95	3	1.07	2	3	4	2
Anxiety index		**63.26**	**65**	**6.72**	**60.5**	**65**	**68**	**7.5**

Scale: 1=a little of the time; 2=some of the time; 3=good part of the time; 4=most of the time

6.2.4 Satisfaction with Care in ICU (14- itemed CCFNI)

This section of the questionnaire related to the pre-intervention assessment of satisfaction with transitional care in ICU. When determining the degree of satisfaction with care in ICU, the 14 itemed CCFNI was used (*Appendix U, Appendix V, Appendix W, Appendix X*). Answer options 1 and 2 were allocated score one while answer options 3 and 4 were allocated score zero which denoted satisfaction and dissatisfaction with care respectively (Johnson, *et al.,* 1998) except for items 11 and 14 which were inversely formulated. For these answer options 1 and 2 were allocated (score zero) while answer options 3 and 4 were allocated (score one) which denoted dissatisfaction and satisfaction with care respectively which is the opposite of the other items. Comparison of the participants' degree of satisfaction pre and post intervention employed the scores one and zero.

Results of the frequency distributions obtained from the responses of the participants (n = 65) are displayed in **table 6.5**.

In addition, **Table 6.6** displays descriptive statistics of satisfaction with transitional care in the ICU during the pre-intervention test based on a 14-item shortened version of the Critical Care Family Needs Inventory (CCFNI) scale. The participants indicated appreciable dissatisfaction (4.12 ± 2.82). The median dissatisfaction score was 3, indicating that the participants were dissatisfied during the pre-intervention test. The interquartile range (IQR) for the CCFNI scale items was 0-1. **Table 6.6** displays these results.

Table 6.5: Frequency distribution obtained from the participants for the pre-intervention test satisfaction with care in ICU (14-itemed CCFNI)

	Items	Almost all the time		Most of the time		Only some of the time		None of the time	
		f	%	f	%	f	%	f	%
1	Do you feel the best possible care was given to you?	14	21.54%	14	21.54%	21	32.31%	16	24.62%
2	Do you feel the hospital personnel care about you?	14	21.54%	12	18.46%	23	35.38%	16	24.62%
3	Have the explanations given to you about your condition been in terms you can understand?	8	12.31	4	6.15	28	43.08	25	38.46
4	Do you feel you have been given honest information?	9	13.85	7	10.77	24	36.92	25	38.46
5	Do you understand what is happening to you and why things are being done?	9	13.85	5	7.69	27	41.54	24	36.92
6	Have the staff members been courteous to you?	14	21.54	14	21.54	21	32.31	16	24.62
7	Have any of the staff members shown interest in how you are doing?	14	21.54	11	16.92	24	36.92	16	24.62
8	Do you believe that someone from the ICU could call your family at home with any major change in your condition?	14	21.54	13	20.00	22	33.85	16	24.62
9	Have the hospital staff explained the equipment being used?	-	-	9	13.85%	33	50.77%	23	35.38%
10	I am very satisfied with the medical care I receive?	14	21.54%	13	20.00%	22	33.85%	16	24.62%
11	There are some things about the medical care your receive that could be better	14	21.54%	25	38.46%	7	10.77%	19	29.23%
12	Do you feel your family felt comfortable when they visited you in the ICU?	-	-	8	12.31%	35	53.85%	22	33.85%
13	Do you think the waiting room is a comfortable place for a family to wait?	-	-	2	3.08%	16	24.62%	47	72.31%
14	Do you think your family would feel alone and isolated in the waiting room?			6	9.23%	12	18.46%	47	72.31%

Scale: 1=almost all the time; 2=most of the time; 3=some of the time; 4=none of the time

Table 6.6: Descriptive statistics obtained from the participants for the pre-intervention test satisfaction with care in ICU (14-itemed CCFNI)

		Mean	Median	SD	Percentiles			IQR
					25	50	75	
1	Do you feel the best possible care was given to you?	.43	0	.49	0	0	1	1
2	Do you feel the hospital personnel care about you?	.40	0	.49	0	0	1	1
3	Have the explanations given to you about your condition been in terms you can understand?	.18	0	.39	0	0	0	0
4	Do you feel you have been given honest information about your condition	.25	0	.43	0	0	.5	0.5
5	Do you understand what is happening and why things are done?	.22	0	.41	0	0	0	0
6	Have the staff members been courteous to you?	.43	0	.49	0	0	1	1
7	Have any of the staff members shown interest in how you are doing?	.38	0	.49	0	0	1	1
8	Do you believe that someone from ICU could call your family at home with any major change in your condition?	.42	0	.49	0	0	1	1
9	Have the hospital staff explained equipment used?	.14	0	.35	0	0	0	0
10	I am very satisfied with the medical care I receive?	.42	0	.49	0	0	1	1
11	There are some things about the medical care your receive that could be better	.60	1	.49	0	1	1	1
12	Do you feel your family felt comfortable when they visited you in the ICU?	.12	0	.33	0	0	0	0
13	Do you think the waiting room is a comfortable place for family to wait?	.031	0	.174	0	0	0	0
14	Do you think your family would feel isolated in the waiting room?	.09	0	.29	0	0	0	0
	ICU Satisfaction Levels	4.12	3	2.82	1	3	7	-

Scale 0=dissatisfaction, 1=satisfaction

6.2.5 Satisfaction with Care in the Ward (15-Itemed PPE)

This section of the questionnaire related to the pre-intervention assessment of the satisfaction with transition care in the ward. When determining the degree of satisfaction with care in wards, the 15 itemed PPE was used (*Appendix U, Appendix V, Appendix W, Appendix X*). Each item on this tool was coded for statistical analysis as a dichotomous 'problem score' indicating the presence or absence of a problem with the questioned domain. Neutral and most positive answers were coded as a "non-problem" and were allocated a score zero. All care aspects requiring improvement according to participant responses were all coded as "problems" and a score one was allocated. Based on these binary problem/no problem responses, the percentage of patients or families with or without problems was calculated for each question. The problem content for participants on the PPE ranged from 0% denoting no problem to 100% denoting total problems.

Results of the frequency distributions obtained for the responses from the participants (n = 65) are shown in **table 6. 7.**

Table 6.8 displays the descriptive statistics of participants' satisfaction with ward care based on a 15-Picker Patient Experience Questionnaire [PPE] during the pre-intervention test. During the pre-intervention test, participants indicated varying degrees of difficulty (9.77±2.29). The median dissatisfaction score was 10, showing that the participants had issues with the care during the pre-intervention test. The PPE scale's interquartile range (IQR) was 0-1. More descriptive information can be found in **Table 6.8.**

Table 6.7: Frequencies obtained from the participants for the pre-intervention test satisfaction with care in the ward environment (15-itemed PPE)

	Items	Yes always		Yes sometimes		No, I had not need to ask	
		f	%	f	%	f	%
1	Do you feel the best possible care was given to you?	26	40.00%	39	60.00%	-	-
2	Do you feel the hospital personnel care about you?	19	29.23%	43	66.15%	3	4.62%
3	Have the explanations given been in terms you understand?	-	-	50	76.92%	15	23.08%
4	Do you feel you have been given honest information …	24	36.92%	41	63.08%	-	-
5	Do you understand what is happening and why things are being done?	-	-	39	60.00%	26	40.00%
6	Have the staff members been courteous to you?	45	69.23%	14	21.54	6	9.23%
7	Have any of the staff shown interest in how you are doing?	18	27.69%	43	66.15%	4	6.15%
8	Do you believe that someone from the ICU would call family at home with major change in your condition?	17	26.15%	48	73.85%	-	-
9	Have the hospital staff explained the equipment used?	21	32.31%	40	61.54%	4	6.15%
10a	Did you ever feel your relative was in pain	61	93.85%	4	6.15%	-	-
10b	Did you think the staff did everything to help control pain	52	80.00%	13	20.00%	-	-
11	If your family wanted to talk to a clinician, did they have the opportunity to do so?	13	20.00%	41	63.00%	11	16.92%
12	Did the staff give all the information to help your relative recover?	15	23.08%	42	64.62%	8	12.31%
13	Did the staff explain medicines to take at home in a way that you could understand?	20	30.77%	37	56.92%	8	12.31%
14	Did staff explain the side effects to watch out at home?	21	32.31%	39	60.00%	5	7.69%
15	Did someone tell you about the danger signals treatment to watch for at home?	14	21.54%	45	69.23%	6	9.23%

Scale: 1=yes, always; 2=yes, sometimes; 3=no, I had not need to ask

Table 6.8: Descriptive statistics obtained from the participants for the pre-intervention test for satisfaction with care in the ward environment (15-itemed PPE)

	Items	Mean	Median	SD	Percentiles			IQR
					25	50	75	
1	Do you feel the best possible care was given to you?	.60	1	.49	0	1	1	1
2	Do you feel the hospital personnel care about you?	.66	1	.48	0	1	1	1
3	Have the explanations given to you about your condition been in terms you can understand?	.76	1	.42	1	1	1	0
4	Do you feel you have been given honest information …	.63	1	.49	0	1	1	1
5	Do you understand what is happening to you and why things are being done?	.60	1	.49	0	1	1	1
6	Have the staff members been courteous to you?	.21	0	.41	0	0	0	0
7	Have any of the staff members shown interest in how you are doing?	.66	1	.48	0	1	1	1
8	Do you believe that someone from the ICU could call your family at home with any major or significant change in your condition?	.74	1	.44	0	1	1	1
9	Have the hospital staff explained the equipment used?	.62	1	.49	0	1	1	1
10a	Did you ever feel your relative was in pain	.94	1	.24	1	1	1	0
10b	Did you think the staff did everything they could to help control your relative's pain	.20	0	.40	0	0	0	0
11	If family wanted to talk to a clinician, did they have enough opportunity to do so?	.63	1	.49	0	1	1	1
12	Did the staff give your family all the information they needed to help your relative recover?	.65	1	.48	0	1	1	1
13	Did staff explain the medicines your relative was to take at home in a way that you could understand?	.56	1	.49	0	1	1	1
14	Did staff explain the side effects to watch out for when you go home?	.60	1	.49	0	1	1	1
15	Did someone tell you about the danger signals regarding your treatment to watch for at home?	.69	1	.46	0	1	1	1
	Satisfaction with care in ward	**9.77**	**10**	**2.29**	**8**	**10**	**12**	**-**

Scale 0=no problem, 1=problem

6.3 POST-INTERVENTION RESULTS

6.3.1 Demographic Data

Table 6.9: Demographic data obtained from the participants for the post-intervention test

Characteristic	Frequency	Percentage
Age		
< 20yrs	-	
20 to 39yrs	37	56.92%
40 to 59yrs	26	40.00%
60 to 79yrs	2	3.08%
>79yrs	-	-
Gender		
Male	17	26.15%
Female	48	73.85%
Education level		
<high school	31	47.69%
High school	28	43.08%
Some college	6	9.23%
University	-	-
Advance degree	-	-
Previous ICU experience		
Yes	2	3.08%
No	63	96.92%
Relationship to family member		
Spouse	29	44.6%
Significant other	4	6.2%
Parent	16	24.6%
Son/daughter	16	24.6%
Brother/sister	-	-
Family size		
None	-	-
1	-	-
2 to 3	12	18.46%
4 to 6	36	55.38%
>6	17	26.15%
Distance to hospital		
In city	2	3.08%
<1hr drive	14	21.54%
1 to 3hr drive	25	38.46%
>3hr drive	24	36.92%
Visiting duration/day		
<2hrs	41	63.08%
2 to 4hrs	24	36.92%
4 to 6hrs	-	-
6 to 12hrs	-	-
>12hrs	-	-

Table 6.9 shows the demographics of the family members during the post-intervention test. The majority of family members (74%) were females, and 57% were under the age of 40 years. The majority were illiterate, as indicated that over 90% of them only had a high school diploma. During the post-intervention test in the ICU, family members spent an average of 2 hours (63%) with their relatives. More information can be found in **Table 6.9.**

6.3.2 Patient Clinical Information

Table 6.10: Patient information obtained from the participants for the post-intervention test

Characteristic	Frequency	Percentage
Age		
< 20yrs	2	3.1%
20 to 39yrs	31	47.7%
40 to 59yrs	26	40.0%
60 to 79yrs	6	9.2%
>79yrs	-	-
Gender		
Male	40	**61.5%**
Female	25	38.5%
Reason for Admission		
Medical	-	-
Elective surgery	21	32.3%
Emergency surgery	44	67.7%
Length of stay in ICU		
2 days	34	**52.3%**
3 days	20	30.8%
4 days	11	16.9%
5 days	-	-
Length of stay in Ward		
2 days	22	**33.9%**
3 days	20	30.8%
4 days	15	23.1%
5 days	8	12.3%

The patient clinical information during the post-intervention test are depicted in **table 6.10.** The majority 61.5% (n = 40) of patients were males, and the majority were under the age of 40 (47.7%; n = 31) years. The majority 67.7% (n = 44) were admitted to ICU after an emergency surgical procedure, and the majority had a length of stay of 2 days (52.3%; n = 34), and one third 33.9% (n = 22) spent 2 days in the ward. **Figure 6.2** presents a graphical display of this data.

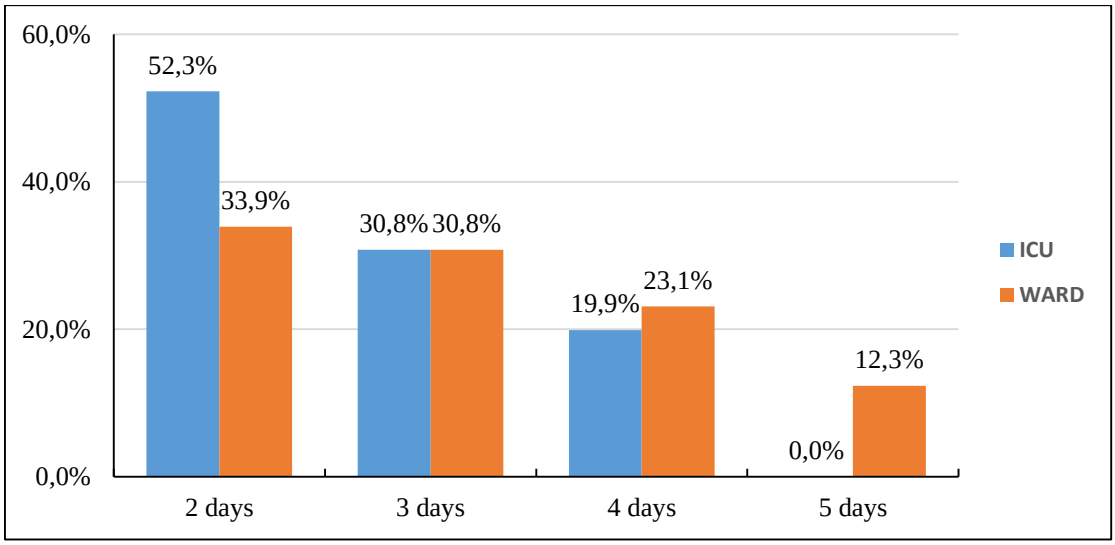


Figure 6.2: Responses for patient's post-intervention test length of stay in ICU and ward

6.3.3 Anxiety Level (20-itemed Zung SAS)

This section of the questionnaire related to the post-intervention assessment of the level of anxiety. When determining the level of anxiety, the 20-itemed Zung SAS responses from the participants were used (*Appendix U, Appendix V, Appendix W, Appendix X*). To ensure consistency in these measurements the same procedures were followed as described in the pre-intervention test (refer **section 6.2.3**).

Results of the frequency distributions obtained from the responses of the participants (n = 65) are displayed in **table 6.11**.

In addition, **Table 6.12** also shows the descriptive parameters of the 20-item anxiety measure during the post-intervention test. The anxiety levels of participants decreased significantly during the post-test (37.40 ± 5.83), with the median score across the scale being 1-2, showing family anxiety a little of the time and some of the time. At the post-intervention test, the interquartile range (IQR) of items across the anxiety scale was 1-2. More descriptive information can be found in **table 6.12**.

Table 6.11: Frequency distribution obtained from the participants for the post-intervention test level of anxiety (20-itemed Zung SAS)

	Statements	A little of time		Some of the time		Good part of time		Most of the time	
		f	%	f	%	f	%	f	%
1	I feel more nervous and anxious than usual	28	43.08%	17	26.15%	11	16.92%	9	13.85%
2	I feel afraid for no reason at all	27	41.54%	18	27.69%	14	21.54%	6	9.235
3	I get upset easily or feel panicky	27	41.54%	17	26.15%	13	20.00%	8	12.31%
4	I feel like I'm falling apart and going to pieces	26	40.00%	21	32.31%	12	18.46%	6	9.23%
5	I feel that everything is all right and nothing bad will happen	8	12.31%	15	23.08%	16	24.62%	26	40.00%
6	My arms and legs shake and tremble	31	47.69%	21	32.31%	12	18.46%	1	1.54%
7	I am bothered by headaches neck and back pain	32	49.23%	22	33.85%	7	10.77%	4	6.15%
8	I feel weak and get tired easily	25	38.46%	21	32.31%	13	20.00%	6	9.23%
9	I feel calm and can sit still easily	7	10.77%	14	21.54%	17	26.15%	27	41.54%
10	I can feel my heart beating fast	25	38.46%	16	24.62%	16	24.62%	8	12.31%
11	I am bothered by dizzy spills	34	52.31%	19	29.23%	10	15.38%	2	3.08%
12	I have fainting spells or feel like it	43	66.15%	15	23.08%	5	7.69%	2	3.08%
13	I can breathe in and out easily	6	9.23%	12	18.46%	18	27.69%	29	44.62%
14	I get feelings of numbness and tingling in my fingers and toes	40	61.54%	14	21.54%	7	10.77%	4	6.15%
15	I am bothered by stomach aches or indigestion	32	49.23%	22	33.85%	7	10.775	4	6.15%
16	I have to empty my bladder often	25	38.46%	21	32.31%	13	20.00%	6	9.23%
17	My hands are usually dry and warm	2	3.08%	13	20.00%	21	32.31%	29	44.62%
18	My face gets hot and blushes	42	64.62%	9	13.85%	8	12.31%	6	9.23%
19	I fall asleep easily and get a good night's rest	9	13.85%	12	18.46%	15	23.08%	29	44.62%
20	I have nightmares	35	53.85%	15	23.08%	9	13.85%	6	9.23%

Scale 1 = a little of the time; 2 = some of the time; 3 = good part of the time; 4 = most of the time

Table 6.12: Descriptive statistics obtained from the participants for the post-intervention test level of anxiety (20-itemed Zung SAS)

Items		Mean	Median	Standard Deviation	Percentiles			IQR
					25	50	75	
1	I feel more nervous and anxious than usual	2.01	2	1.08	1	2	3	2
2	I feel afraid for no reason at all	1.98	2	1.01	1	2	3	2
3	I get upset easily or feel panicky	2.03	2	1.06	1	2	3	2
4	I feel like I'm falling apart and going to pieces	1.97	2	.98	1	2	3	2
5	I feel that everything is all right and nothing bad will happen	2.08	2	1.06	1	2	3	2
6	My arms and legs shake and tremble	1.74	2	.81	1	2	2	1
7	I am bothered by headaches neck and back pain	1.74	2	.89	1	2	2	1
8	I feel weak and get tired easily	2.00	2	.98	1	2	3	2
9	I feel calm and can sit still easily	2.01	2	1.04	1	2	3	2
10	I can feel my heart beating fast	2.12	2	1.06	1	2	3	2
11	I am bothered by dizzy spills	1.69	1	.85	1	1	2	1
12	I have fainting spells or feel like it	1.48	1	.77	1	1	2	1
13	I can breathe in and out easily	1.92	2	1.00	1	2	3	2
14	I get feelings of numbness and tingling in my fingers and toes	1.62	1	.91	1	1	2	1
15	I am bothered by stomach aches or indigestion	1.74	2	.87	1	2	2	1
16	I have to empty my bladder often	2.00	2	.98	1	2	3	2
17	My hands are usually dry and warm	1.82	2	.86	1	2	2	1
18	My face gets hot and blushes	1.66	1	1.02	1	1	2	1
19	I fall asleep easily and get a good night's rest	2.02	2	1.09	1	2	3	2
20	I have nightmares	1.78	1	1.01	1	1	2	1
Anxiety index		37.40	37	5.83	34	37	39.50	5.50

Scale 1=a little of the time, 2=some of the time, 3=good part of the time, & 4=most of the time

6.3.4 Satisfaction with Care in ICU (14-itemed CCFNI)

This section of the questionnaire related to the post-intervention assessment of the satisfaction with transitional care in ICU. When determining the degree of satisfaction of care, the 14-itemed CCFNI responses from the participants were used (*Appendix U, Appendix V, Appendix W, Appendix X*). To ensure consistency in these measurements the same procedures were followed as described in the pre-intervention test (refer **section 6.2.4**).

Results of the frequency distributions obtained from the responses of the participants (n = 65) are displayed in **table 6.13**.

At post-intervention test, **Table 6.14** shows descriptive statistics of satisfaction with ICU transitional care based on a 14-item shortened version of the Critical Care Family Needs Inventory (CCFNI) scale. Participants satisfaction with transitional care in the ICU appears to have grown noticeably (9.38 ± 1.92), with the mean satisfaction level approaching the maximum of 14. At the post-intervention test, the median score was 9, indicating that participants satisfaction with ICU care had improved. **Table 6.14** provides more information.

Table 6.13: Frequency distribution obtained for satisfaction with care in ICU for the post-intervention test (14-itemed CCFNI)

	Satisfaction with care in ICU: Statements	Almost all the time (1)		Most of the time (2)		Only some of the time (3)		None of the time (4)	
		f	%	f	%	f	%	f	%
1	Do you feel the best possible care was given to you?	31	47.69%	21	32.31%	11	16.92%	2	3.08%
2	Do you feel the hospital personnel care about you?	34	52.31	19	29.23	10	15.38	2	3.08%
3	Have the explanations given to you about your condition been in terms you can understand?	33	50.77%	15	23.08%	13	20.00%	4	6.15%
4	Do you feel you have been given honest information about your condition	33	50.77%	17	26.15%	11	16.92%36	4	6.15%
5	Do you understand what is happening to you and why things are being done?	36	55.38%	9	13.85%	16	24.62%	4	6.15%
6	Have the staff members been courteous to you?	28	43.08%	23	35.38%	9	13.85%	5	7.69%
7	Have any of the staff members shown interest in how you are doing?	31	47.69%	23	35.38%	9	13.85%	2	3.08%
8	Do you believe that someone from the ICU could call your family at home with any major or significant change in your condition?	28	43.08%	22	33.85%	10	15.38%	5	7.69%
9	Have the hospital staff explained the equipment being used?	11	16.92%	35	53.85%	13	20.00%	6	9.23%
10	I am very satisfied with the medical care I am receiving?	36	55.38%	19	29.23%	6	9.23%	4	6.15%
11	There are some things about the medical care your receive that could be better	38	58.46%	14	21.54%	11	16.92%	2	3.08%
12	Do you feel your family felt comfortable when they visited you in the ICU ?	11	16.92%	35	53.85%	13	20.00%	6	9.23%
13	Do you think the waiting room is a comfortable place for family to wait?	-	-	4	6.15%	11	16.92%	50	76.92%
14	Do you think your family would feel alone and isolated in the waiting room?	1	1.54%	6	9.23%	2	3.08%	56	86.15%

Scale: 1=almost all the time; 2= most of the time; 3=only some of the time; 4=none of the time

Table 6.14: Descriptive statistics obtained for satisfaction with care in ICU for the post-intervention test (14-itemed CCFNI)

	Items	Mean	Median	SD	Percentiles			IQR
					25	50	75	
1	Do you feel the best possible care was given to you?	.81	1	.39	1	1	1	0
2	Do you feel the hospital personnel care about you?	.80	1	.40	1	1	1	0
3	Have the explanations given to you about your condition been in terms you can understand?	.74	1	.44	0	1	1	1
4	Do you feel you have been given honest information about your condition	.75	1	.43	.50	1	1	0.5
5	Do you understand what is happening and why things are done?	.68	1	.47	1	1	1	1
6	Have the staff members been courteous to you?	.78	1	.41	1	1	1	0
7	Have any of the staff members shown interest in how you are doing?	.85	1	.36	1	1	1	0
8	Do you believe that someone from the ICU could call your family at home with any major change in your condition?	.75	1	.43	.50	1	1	0.5
9	Have the hospital staff explained equipment used?	.69	1	.46	0	1	1	1
10	I am very satisfied with the medical care I receive?	.85	1	.36	1	1	1	0
11	There are some things about the medical care your receive that could be better	.82	1	.39	1	1	1	0
12	Do you feel your family felt comfortable when they visited you in the ICU?	.69	1	.46	0	1	1	1
13	Do you think the waiting room is a comfortable place for family to wait?	.06	0	.24	0	0	0	0
14	Do you think your family would feel isolated in the waiting room?	.11	0	.31	0	0	0	0
	ICU Satisfaction Levels	9.38	9	1.92	8	9	11	3

Scale 0=dissatisfaction, 1=satisfaction

6.3.5 Satisfaction with Care in the Ward (15-itemed PPE)

This section of the questionnaire related to the post-intervention assessment of the satisfaction with transitional care in ward. When determining the degree of satisfaction of care in the ward, the 15-itemed PPE responses from the participants were used (*Appendix U, Appendix V, Appendix W, Appendix X*). To ensure consistency in these measurements the same procedures were followed as described in the pre-intervention test (refer **section 6.2.5**).

Results of the frequency distributions obtained from the responses of the participants (n = 65) are displayed in **table 6.15**.

In addition, the descriptive statistics of participants' levels of satisfaction with ward care at post-intervention test are shown in **Table 6.16**. Participants reported higher levels of satisfaction (5.25±1.91) at the post-intervention test. The median score was 5, indicating that the family members' level of satisfaction had improved significantly since the pre-test. The interquartile range (IQR) of the PPE scale was 0-1. **Table 6.16** has more descriptive information.

Table 6.15: Frequencies obtained for satisfaction with care in the ward environment for the post-intervention test (15-itemed PPE)

	Items	Yes always (1)		Yes sometimes (2)		No I had not need to ask (3)	
		f	%	f	%	f	%
1	Do you feel the best possible care was given to you?	43	66.15%	22	33.85%	-	-
2	Do you feel the hospital personnel care about you?	49	75.38%	16	24.62%	-	-
3	Have the explanations given to you been in terms you can understand?	-	-	17	26.15%	48	73.85%
4	Do you feel you have been given honest information	44	67.69%	21	32.31%	-	-
5	Do you understand what is happening to you and why things are being done?	-	-	16	24.62%	49	75.38%
6	Have the staff members been courteous to you?	-	-	21	32.31%	44	67.69%
7	Have any of the staff members shown interest in how you are doing?	49	75.38%	16	24.62%	-	-
8	Do you believe that the ICU could call your family at home with any major change in your condition?	47	72.31%	18	27.69%	-	-
9	Have the hospital staff explained the equipment being used?	51	78.46%	14	21.54%	-	-
10a	Did you ever feel your relative was in pain	58	89.23%	-	-	7	10.77%
10b	Did you think the hospital staff did everything to help control your relative's pain	56	86.15%	9	13.85%	-	-
11	If your family wanted to talk to a clinician, did they have enough opportunity to do so?	46	70.77%	19	29.23%	-	-
12	Did the staff give your family or someone close to you all the information they needed to help your relative recover?	42	64.62%	23	35.38%	-	-
13	Did the staff explain the purpose of the medicines your relative was to take at home in a way that you could understand?	43	66.15%	22	33.85%	-	-
14	Did the staff explain the side effects to watch out for when you go home?	44	67.69%	21	32.31%	-	-
15	Did someone tell you about the danger signals of treatment to watch for after your relative goes home?	36	55.38%	29	44.62%		

Table 6.16: Descriptive statistics for satisfaction with care in the ward environment for the post-intervention test (15-itemed PPE)

	Items	Mean	Median	SD	Percentiles			IQR
					25	50	75	
1	Do you feel the best possible care was given to you?	.35	0	.48	0	0	1	1
2	Do you feel the hospital personnel care about you?	.23	0	.42	0	0	0	0
3	Have the explanations given to you about your condition been in terms you can understand?	.26	0	.44	0	0	1	1
4	Do you feel you have been given honest information about your condition	.34	0	.48	0	0	1	1
5	Do you understand what is happening to you and why things are being done?	.23	0	.42	0	0	0	0
6	Have the staff members been courteous to you?	.31	0	.46	0	0	1	1
7	Have the staff members shown interest in how you are doing?	.25	0	.43	0	0	.50	0.50
8	Do you believe the ICU would call family at home with major change in your condition?	.27	0	.45	0	0	1	1
9	Have the staff explained the equipment used?	.21	0	.41	0	0	0	0
10a	Did you ever feel your relative was in pain	.89	1	.31	1	1	1	0
10b	Did you think the staff did everything they could to help control your relative's pain	.14	0	.35	0	0	0	0
11	If your family wanted to talk to a clinician, did they have enough opportunity to do so?	.29	0	.46	0	0	1	1
12	Did the staff give your family or someone close to you all the information they needed to help your relative recover?	.35	0	.48	0	0	1	1
13	Did the staff explain the purpose of the medicines your relative was to take at home in a way that you could understand?	.35	0	.48	0	0	1	1
14	Did a member of the staff explain the side effects to watch out for when you go home?	.31	0	.46	0	0	1	1
15	Did someone tell you about the danger signals regarding treatment to watch for after your relative goes home?	.46	0	.50	0	0	1	1
	Satisfaction with care in ward	5.26	5	1.91	4	5	7	

Scale 0=no problem, 1=problem

6.4 COMPARISON BETWEEN PRE- AND POST-INTERVENTION TESTS

6.4.1 Demographic Data

Table 6.17: Summary of frequencies for demographics and clinical variables for comparison between pre- and post-intervention tests

Characteristics	Pre-intervention test		Post-intervention test	
	n	%	n	%
Age				
< 20yrs	-	-	-	
20 to 39yrs	41	63.1%	37	56.92%
40 to 59yrs	18	27.7%	26	40.00%
60 to 79yrs	6	9.2%	2	3.08%
>79yrs	-	-	-	-
Gender				
Male	24	36.9%	17	26.15%
Female	41	63.1%	48	73.85%
Education level				
<high school	35	53.8%	31	47.69%
High school	24	36.9%	28	43.08%
Some college	4	6.2%	6	9.23%
University	2	3.1%	-	-
Advance degree	-	-	-	-
Previous ICU experience				
Yes	-	-	2	3.08%
No	65	100.0%	63	96.92%
Relationship to family				
member	24	36.9%	29	44.6%
Spouse	2	3.1%	4	6.2%
Significant other	3	4.6%	16	24.6%
Parent	18	27.7%	16	24.6%
Son/daughter	18	27.7%	-	-
Brother/sister				
Family size				
None	-	-	-	-
1	4	6.2%	-	-
2 to 3	21	32.3%	12	18.46%
4 to 6	32	49.2%	36	55.38%
>6	8	12.3%	17	26.15%
Distance to hospital				
In city	-		2	3.08%
<1hr drive	10	15.4%	14	21.54%
1 to 3hr drive	32	49.2%	25	38.46%
>3hr drive	23	35.4%	24	36.92%
Visiting duration/day				
<2hrs	53	81.5%	41	63.08%
2 to 4hrs	12	18.5%	24	36.92%
4 to 6hrs	-	-	-	-
6 to 12hrs	-	-	-	-
>12hrs	-	-	-	-

6.4.2 Patient Clinical Information

Table 6.18: Summary of frequencies for patient data for pre- and post-intervention tests

Characteristics	Pre-intervention test		Post-intervention test	
	N	%	n	%
Age				
< 20yrs	4	6.2%	2	3.1%
20 to 39yrs	34	52.3%	31	47.7%
40 to 59yrs	23	35.4%	26	40.0%
60 to 79yrs	4	6.2%	6	9.2%
>79yrs	-	-	-	-
Gender				
Male	34	52.3%	40	61.5%
Female	31	47.7%	25	38.5%
Reason for Admission				
Medical	-		-	-
Elective surgery	19	29.2%	21	32.3%
Emergency surgery	46	70.8%	44	67.7%
Length of stay in ICU				
2 days	41	63.1%	34	52.3%
3 days	18	27.7%	20	30.8%
4 days	-	-	11	16.9%
5 days	6	9.2%	-	-
Length of stay in Ward				
2 days	10	15.4%	22	33.9%
3 days	23	35.4%	20	30.8%
4 days	18	27.7%	15	23.1%
5 days	14	21.5%	8	12.3%

6.4.3 Anxiety Level

Table 6.19: Summary statistics for level of anxiety comparison between pre- and post-intervention tests

	Pre-intervention			Post-intervention		
	M	Me	SD	M	Me	SD
I feel more nervous and anxious than usual	3.48	4	0.75	2.01	2	1.08
I feel afraid for no reason at all	3.22	3	0.84	1.98	2	1.01
I get upset easily or feel panicky	3.42	4	0.70	2.03	2	1.06
I feel like I'm falling apart and going to pieces	3.24	4	0.99	1.97	2	.98
I feel that everything is all right and nothing bad will happen	3.40	4	0.70	2.08	2	1.06
My arms and legs shake and tremble	2.94	3	0.97	1.74	2	.81
I am bothered by headaches neck and back pain	3.05	3	1.02	1.74	2	.89
I feel weak and get tired easily	3.22	3	0.89	2.00	2	.98
I feel calm and can sit still easily	3.43	4	0.71	2.01	2	1.04
I can feel my heart beating fast	3.14	3	0.89	2.12	2	1.06
I am bothered by dizzy spills	3.17	3	0.91	1.69	1	.85
I have fainting spells or feel like it	2.88	3	1.01	1.48	1	.77
I can breathe in and out easily	3.28	4	0.89	1.92	2	1.00
I get feelings of numbness and tingling in my fingers and toes	3.08	3	1.05	1.62	1	.91
I am bothered by stomach aches or indigestion	3.14	4	1.04	1.74	2	.87
I have to empty my bladder often	2.97	3	1.02	2.00	2	.98
My hands are usually dry and warm	2.89	3	1.05	1.82	2	.86
My face gets hot and blushes	2.94	3	1.06	1.66	1	1.02
I fall asleep easily and get a good night's rest	3.46	4	0.69	2.02	2	1.09
I have nightmares	2.95	3	1.07	1.78	1	1.01
Anxiety Index	**63.26**	**65**	**6.72**	**37.40**	**37**	**5.83**

To evaluate the differences in anxiety between pre-intervention test and post-intervention test, an Independent-Samples Mann-Whitney U test was conducted. A Mann-Whitney U test demonstrated that anxiety scores were significantly lower in the post-intervention test group (median=10.5, n=65) compared to the pre-intervention test group (median=30.5, n=65), U =.000, Z = -5.410, p =.000, and W = 210.00. The effect size r=0.67, which indicates medium effect; 0.2=small effect, 0.5=medium effect, and 0.8=larger effect (Ai, Huang and Zhang, 2020). Hence the hypothesis was supported. Refer to **Figure 6.3** for details.

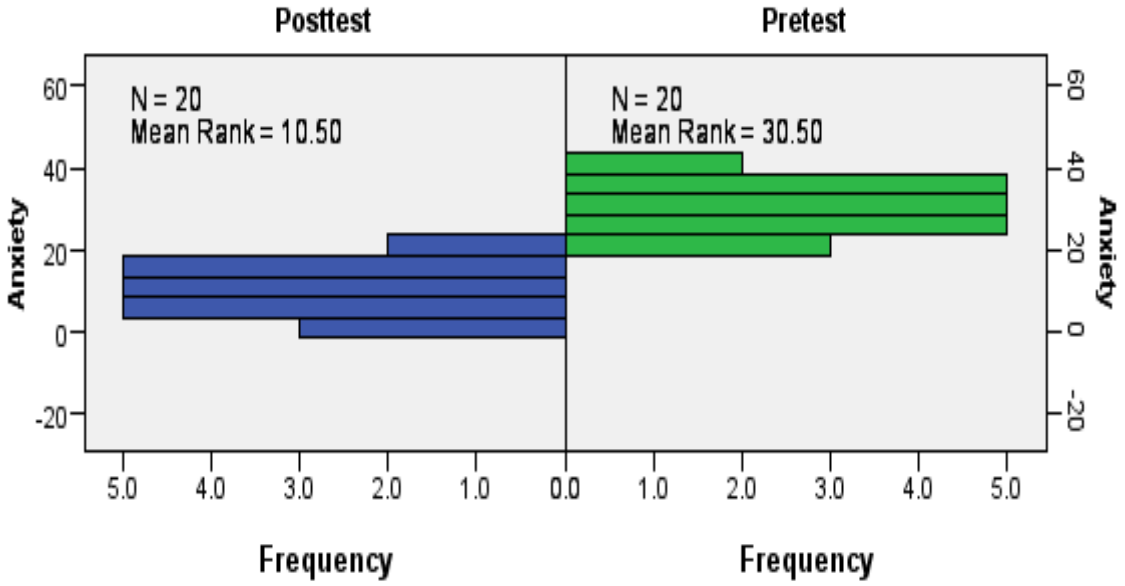


Figure 6.3: Independent-Samples Mann-Whitney U test of rank means for pre-intervention test and post-intervention test (Anxiety index)

6.4.4 Satisfaction of care in ICU (14-Itemed CCFNI)

Table 6.20: Summary statistics for satisfaction of care in ICU comparison between pre- and post-intervention tests

Items	Pre-intervention			Post-intervention		
	M	Me	SD	M	Me	SD
Do you feel the best possible care was given to you?	.43	0	.49	.81	1	.39
Do you feel the hospital personnel care about you?	.40	0	.49	.80	1	.40
Have the explanations given been in terms you can understand?	.18	0	.39	.74	1	.44
Do you feel you have been given honest information about your condition	.25	0	.43	.75	1	.43
Do you understand what is happening to you and why things are being done?	.22	0	.41	.68	1	.47
Have the staff members been courteous to you?	.43	0	.49	.78	1	.41
Have any of the staff members shown interest in how you are doing?	.38	0	.49	.85	1	.36
Do you believe that the ICU would call your family at home with any major change in your condition?	.42	0	.49	.75	1	.43
Have the hospital staff explained the equipment being used?	.14	0	.35	.69	1	.46
I am very satisfied with the medical care I am receiving?	.42	0	.49	.85	1	.36
There are some things about the medical care your receive that could be better	.60	1	.49	.82	1	.39
Do you feel your family felt comfortable when they visited you in the ICU ?	.12	0	.33	.69	1	.46
Do you think the waiting room is a comfortable place for family to wait?	.031	0	.174	.06	0	.24
Do you think family would feel isolated in the waiting room?	.09	0	.29	.11	0	.31
ICU Satisfaction Levels	**4.12**	**3**	**2.82**	**9.38**	**9**	**1.92**

To analyse the differences in satisfaction levels among participants in the ICU during transitional care, the researcher used a Mann-Whitney U test. A Mann-Whitney U test revealed that satisfaction in the post-intervention test group (median =21.36, n = 65) was substantially higher than in the pre-intervention test group (median =7.64, n = 65), with U = 194.0, Z = 4.411, p =.000, and W = 299.0. The effect size is 0.55, indicating a medium effect; 0.2 suggests a little effect, 0.5 indicates a medium effect, and 0.8 shows a high effect (Ai, Huang and Zhang, 2020). As a result, H1 was accepted. For more information, see **Figure 6.4.**

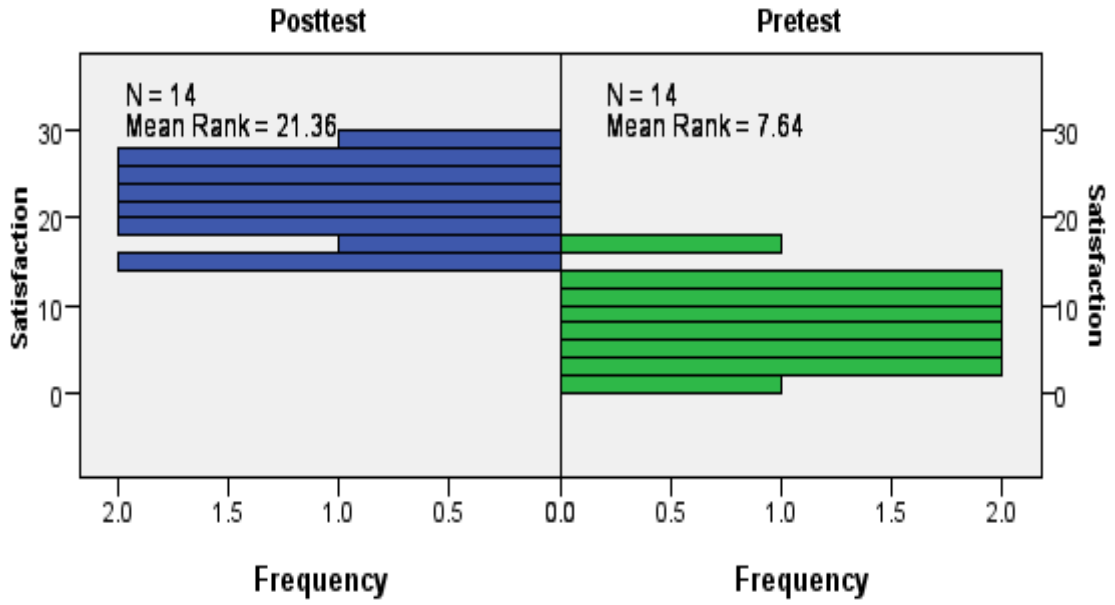


Figure 6.4: Independent-Samples Mann-Whitney U test of rank means for pre-intervention test and post-intervention test for ICU satisfaction of care

6.4.5 Satisfaction of Care in Ward (15-Itemed PPE)

Table 6.21: Summary statistics for satisfaction with care for pre- and post-intervention tests (15-itemed PPE)

	Pre-intervention			Post-intervention		
	M	Me	Sd	M	Me	SD
When you had important questions to ask a clinician, did you get the answers that you could understand?	.60	1	.49	.35	0	.48
When you had important questions to ask a nurse, did you get the answers that you could understand?	.66	1	.48	.23	0	.42
Sometimes in a hospital, one clinician or one nurse will say one thing and another will say something quite different. Did this happen to you?	.76	1	.42	.26	0	.44
If you had anxieties or fears about the condition or treatment of your relative, did a clinician discuss them with you?	.63	1	.49	.34	0	.48
Did medical clinicians talk in front of you as if you were not there?	.60	1	.49	.23	0	.42
Did you want to be more involved in decisions made about care and treatment of your relative?	.21	0	.41	.31	0	.46
Overall, did you feel you were treated with respect and dignity while you were in hospital?	.66	1	.48	.25	0	.43
If ever you had anxieties or fears about your relative's condition or treatment, did a nurse discuss them with you?	.74	1	.44	.27	0	.45
Did you find someone on the hospital staff to talk to about your concerns?	.62	1	.49	.21	0	.41
Did you ever feel your relative was in pain?	.94	1	.24	.89	1	.31
Do you think the hospital staff did everything to help control your relative's pain?	.20	0	.40	.14	0	.35
If your family or someone else close to you wanted to talk to a clinician, did they have enough opportunity to do so?	.63	1	.49	.29	0	.46

Did the staff give your family all the information they needed to help your relative recover?	.65	1	.48	.35	0	.48
Did the staff explain the purpose of the medicines to take at home in a way that you could understand?	.56	1	.49	.35	0	.48
Did staff explain the side effects to watch out for when you go home?	.60	1	.49	.31	0	.46
Did someone tell you about the danger signals regarding treatment to watch for at home	.69	1	.46	.46	0	.50
Ward care satisfaction	**9.77**	**10**	**2.29**	**5.26**	**5**	**1.91**

The Mann-Whitney U test was used to assess differences in satisfaction levels across participants in the ward. With U = 52.0, Z = -2.114, p = .03, and W = 157.0, a Mann-Whitney U test revealed that satisfaction was considerably higher in the post-intervention test group (median =11.21, n = 65) than in the pre-intervention test group (median =17.79, n = 65). The effect size is 0.26, which indicates a small effect; 0.2 indicates a small effect; 0.5 indicates a medium effect; and 0.8 indicates a larger effect (Ai, Huang and Zhang, 2020). As a result, H1 received approval. **See Figure 6.5** for further information.

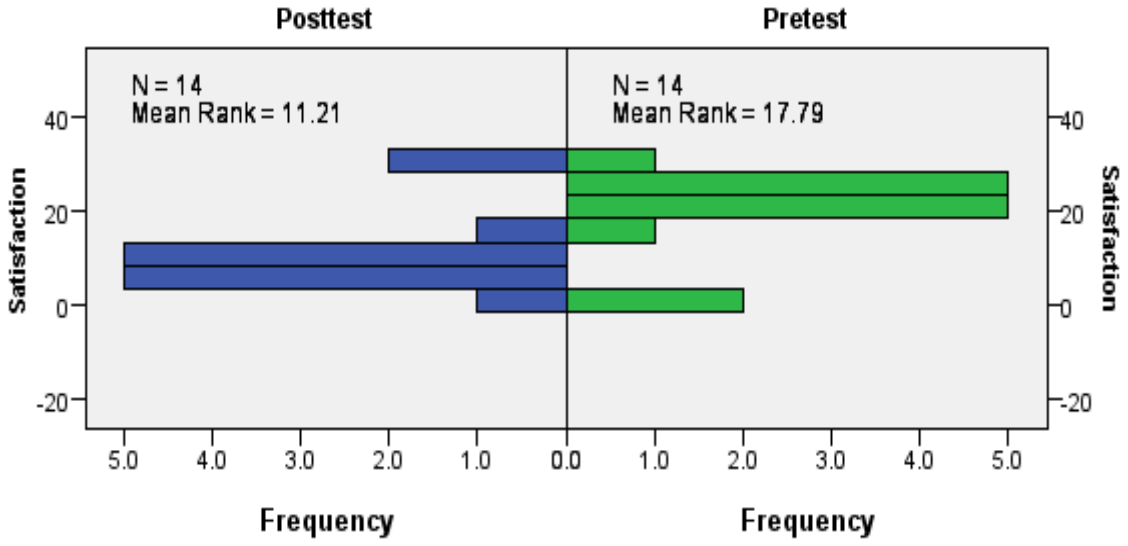


Figure 6.5: Independent-Samples Mann-Whitney U test of rank means for pre-intervention test and post-intervention test for ward satisfaction with care

6.5 OBSERVATIONS FROM POST-INTERVENTION FOCUS GROUP DISCUSSION

The focus group discussion indicated that medical clinicians and nurses were satisfied with the developed clinical nursing guideline and therefore recommended for its broader use without further restructuring or modifications. They indicated that the guideline helped the ward and ICU nurses to conduct ICU transition of care for patients and families smoothly. Their responses were categorised into two major emerging themes in line with psychosocial care as follows:

6.5.1 Theme 1: *Nurses Supported*

The team felt the clinical nursing guidelines helped the ICU and ward nurses to provide an efficient transition of care for patients and families before, during and after ICU transfer. Having it in the written form made it even easier, as they only had to follow the recommendations without having to decide what to do themselves. They had this to say:

"It gave us a structure for providing the transitional care and ICU transfer with patients and families, as most of us really didn't know how to do it…"

ICU nurse 2

"…nurses are usually very busy caring (physical)… but psychosocial support is also important although (it) is usually not considered… so the guideline ensured that something was done to that effect".

ICU Clinician 1

"Sometimes nurses also stress out and are not able to do something because it is not written. They want something written down…that way it was easy to follow …."

Ward Clinician 1

6.5.2 Theme 2: *Patients and Families Prepared for Transfer*

The team also indicated that patients and families were better prepared for ICU transfer after implementing the clinical nursing guidelines. They were more aware of the differences in the care and environment in the wards compared to before the guideline was developed. They said:

> *"It was good to have a guideline…it helped us to prepare patients and families in advance on what to expect in our wards. …when they just come from ICU, we cannot give detailed information because patients are critical…"*
>
> Ward Nurse 2
>
> *"It helped to reduce the burden on nurses who are in short supply. I think it was not that hard to implement. And patients looked happier and less anxious this time..."*
>
> Ward Clinician 2
>
> *…development of the guideline is very appropriate and has come on (at) the right time because previously everything ended in ICU. Patients left ICU without knowing what will happen after that…now in the ward too, they are given some information…"*
>
> ICU Nurse 1
>
> *"The guideline helped to address issues of continuity of care after ICU…"*
>
> ICU Clinician 2

6.6 DISCUSSION OF MAIN RESULTS

Munyiginya and Brysiewicz (2014), who conducted a study in Rwanda and established that families were young married and poorly educated females, supported the demographic findings from the present study, both pre- and post-intervention. The young age of families in this study corresponded with the young patient population, as their relationship was largely that of a spouse. In most African countries, it is a tradition for females, especially spouses of married male patients, to take up the primary caregiving responsibility for their family members' illnesses (Ndabavunye, 2005). Kohi, Obogo and Mselle (2016) study in Tanzania reported on the poor educational status of families, probably due to the overall low literacy rates in most African countries. (Munyiginya and Brysiewicz, 2014) supported the findings of families having to travel long distances to and from the admitting ICU due to

inadequate ICUs in Rwanda, similar to the present study whereby the site was the only public health facility offering ICU services to the whole of the southern region of Malawi.

A study by (Kulnik, Wulf and Brunker, 2019) conducted in the United Kingdom supported most of the findings regarding families, except that they were a little older and better educated. Similarly, in Canada, Bailey *et al.* (2010) supported the ICU admission reason, gender of families, and their ICU experience. However, they differed on the gender of patients, age of both patients and families and their relationship, which was that of parents or children, and that they were university educated. These findings differed from Rodríguez-Huerta *et al. (*2019), whose study in Spain found that patients were older females admitted to ICU for cardiac surgeries. A probable explanation for their older ages and likely heart problems, while in the present study, the surgeries were due to trauma, the leading cause of admissions at the site (Size and Haisma, 2005), which is common among young people. Families in the Spanish study were relatively older male children/parents of the patients, well-educated, and with previous ICU experience. The differences in these findings are attributable to differences in the social-economic status and the cultural backgrounds among countries.

Although patients' and families' experiences with care can be affected by age (Crow *et al.*, 2002; Jaipaul and Rosenthal, 2003), gender (Crow *et al.*, 2002), and education level (Bautista, Glen, Shetty and 2007) and probably previous experience, demographic characteristics in the current study were not statistically tested and compared pre- and post-intervention. However, both the patients and their families, were generally youthful, lowly educated and had no previous experience with ICU transition of care similar to the above literature. Furthermore, the patients were predominantly males while their families were predominantly females reflecting the risky survival activities which often predisposed the males to traumatic injuries and subsequent ICU admissions at the study site (Size and Haisma, 2005) and caregiving responsibilities during illnesses in a family for most females (Ndabavunye, 2005).

Concerning the primary outcome of this study, the level of anxiety significantly reduced post-intervention, which might have resulted from the increased certainty about the patient's situation (Mitchell *et al.*, 2019; Pochard *et al.*, 2005) and comprehension of the care

processes due to increased knowledge compared to the pre-intervention. These findings are in agreement with (Azoulay *et al.*, 2000; Delva *et al.*, 2002; Pochard *et al.*, 2005), who, although they investigated families only, found that anxiety was extraordinarily high in relatives because many of them exaggerated the graveness of the conditions or underestimated the clinical treatments, which increased their feelings of anxiety. Providing timely information, and preparing patients and families for the transitions of care, may minimise the feelings of uncertainty and anxiety (Azoulay *et al.*, 2000). The reduction in anxiety levels post-intervention in the current study indicated that the nursing intervention had been effective. Yun *et al.* (2017) and Son (2009) support this finding, as they found in their intervention studies that the transition anxiety scores of relatives of ICU patients decreased after implementing a LN service, an intervention that improved communication.

Generally, anxiety levels were negatively related to the degree of satisfaction with care, both in the ICU and the wards. Patients and families were generally less satisfied with care during pre-intervention when anxiety levels were high, while post-intervention, they were more satisfied with the care during which anxiety levels were low. In ICU, patients and families allocated better scores to individual question items on the CCFNI post-intervention than pre-intervention, showing that the intervention had been effective. Supporting these findings are the interventional studies of Chien *et al.* (2006) and Rodríguez-Huerta *et al.* (2019), which showed that performing the needs-based interventions with ICU patients' families significantly decreased their level of anxiety and increased their degree of satisfaction with care in the experimental groups compared to the control groups. Rodríguez-Huerta *et al.* (2019) further established significantly better total scores on the CCFNI in the intervention group compared to the control group, similar to the present study. Similarly, Yousefi *et al.* (2012), conducted a clinical trial to determine the effectiveness of nursing interventions based on family needs and family satisfaction level of hospitalised patients in the neurosurgery ICU; upon a comparison of the mean satisfaction scores before and after the intervention, the mean satisfaction score significantly increased after the intervention compared to the control group indicating that the intervention had been effective. Similar to this study, with regard to the degree of satisfaction in ICU, the medians were lower pre-intervention, denoting dissatisfaction with care and higher post-intervention, denoting satisfaction with care for both the patient and families.

In the study, communication/information and education formed the largest proportion of the clinical nursing guideline in line with the purpose of the study, suggesting that the reduction in the levels of anxiety and the increase in the degree of satisfaction with care post-intervention might have resulted from enhanced communication between ICU and ward nurses and communication with patients and their families (Auerbach *et al.*, 2005). Auerbach *et al.* (2005) study, which compared satisfaction with needs met in families on admission and on transfer from ICU in America, supports the findings whereby on admission, the most prominent cluster of unmet needs reflected a lack of information about the patient's condition and why things were being done and a lack of explanations of the medical equipment being used. These findings are similar to the pre-intervention findings of the current study, except that the unmet needs in this study were experienced in almost all the aspects of care on the CCFNI pre-intervention. On transfer from ICU, Auerbach *et al.* (2005) established greater satisfaction getting understandable explanations on what was happening and equipment, and staff showing interest, which made families feel comfortable to visit their patients in ICU, similar to the post-intervention findings of the current study except that the satisfaction was in all the care aspects on the CFFNI. Neves *et al.* (2009) in Brazil and Santana Cabrera *et al.* (2007) in Spain, supporting the findings further, found that generally, relatives were much more satisfied with patient care when they received effective information and education.

Although the patients and families were generally more satisfied with all the informational care items in ICU post-intervention, they remained least satisfied with questions stating that the "waiting room is a comfortable place for the family to wait" and "that the family would feel alone and isolated in the waiting room." The study site had no formal waiting rooms for families of ICU patients. Instead, one or two families per patient waited in the receiving wards. When it was time to visit their relatives in ICU, they would wait outside on the benches, similar to experiences in Rwanda (Munyiginya and Brysiewicz, 2014) and Tanzania (Kohi, Obogo and Mselle, 2016), where families of ICU patients had no waiting rooms for their use, which made them feel less satisfied with care. However, the findings were different from those of (Kulnik, Wulf and Brunker, 2019) study in which families had waiting rooms for their use. According to Fitzpatrick, Hinkle and Oskrochi (2009), a comfortable waiting room makes the waiting easier for families in addition to conveying a message of concern and care for their wellbeing.

The finding that the families felt “alone and isolated in the waiting room” could probably be explained by the brief ICU visiting times of <2 hrs per day, both pre- and post-intervention, as a matter of policy, resulting in brief interactions between families and their relatives. This was different from (Bailey *et al.*, 2010) study in Canada, where participating families spent > 5 hrs per day visiting their patients, which was long enough to ensure more extended patients families interactions, thereby reducing feelings of loneliness. (Munyiginya and Brysiewicz, 2014), Stated families wished to have longer and more flexible visiting times to increase the interaction times with their patients. Additionally, loneliness could be because families have little chance of interacting with other families. They stayed in different receiving wards and only interacted briefly outside the ICU as they waited to be ushered into the unit to visit their respective patients.

Regarding their ward care experience pre-intervention, the study findings established that there were a higher proportion of problems denoting overall dissatisfaction with ward care, especially in aspects related to information and education, coordination of care and continuity and the transition of care, congruent to (Ashton *et al.*, 2017). While post-intervention, patients and families experienced an overall lower proportion of problems denoting overall satisfaction with ward care in almost all the care aspects in the wards. The patients’ and families’ greatest need pre-intervention was to be involved in the care and decision making, consistent with (Parlour *et al.*, 2014; Rahmqvist and Bara, 2010; Wolf *et al.*, 2012; Wong *et al.*, 2011) in which patients wanted to be involved in care and decisions about care and treatment plans. However, although families desired to be involved in care, op ‘t Hoog *et al.* (2020) established that hospital staff often did not share information with them, which left them out of their social responsibility to care for their relatives; subsequently, it compromised the continuity of care after hospital discharge. Good communication/information and education are catalysts to patients’ and families’ involvement in patient care and decision-making (O’Leary *et al.*, 2016). Understandable information post-intervention in the wards might have increased the patient’s and families’ confidence and empowerment to participate in care and treatment decisions effectively (Perneger, Charvet-Bérard and Perrier, 2008).

Although there was an overall improvement in communication/information and education post-intervention, the study notably revealed that inadequate information about the danger signals regarding patient illness or treatment to watch for at home after hospital discharge remained the leading problem post-intervention. Supporting the findings is (Leonardsen *et al.*, 2017) study, in which participants also experienced the highest proportion of problems related to this care item in addition to those questions related to explanations about the purpose of medicines and information about medication side effects, indicative of a need for the healthcare providers to pay more attention to discharge drug information. (Kripalani *et al.*, 2007; Makaryus and Friedman, 2005; Maniaci, Heckman and Dawson, 2008) established that although physicians believe they do give drug instructions on discharge, the patients and their families report they do not know why the medications are taken, the duration for taking them and other related activities. Poor discharge information and education can negatively affect the transition of care and overall recovery process, including causing drug-related problems (Garcia-Caballos *et al.*, 2010).

Conversely, good drug information and education can help in improving medication adherence and general patient and families satisfaction (Chang *et al.*, 2006). (Olson and Windish, 2010) established that one reason for inadequate medication information was the difference between what healthcare providers think patients and families know and what they know. Kohi, Obogo and Mselle (2016) further established that healthcare providers believed patients and families did not need to know everything concerning the care, so they did not communicate with them as required. (Mitchell *et al.*, 2019) found that incongruent information about patient care caused distress in relatives, demanding routine and congruent communication with patients and their families (Siemsen *et al.*, 2012).

Concerning the physical component of care, pain from surgical interventions had the highest proportion of problems both pre- and post-intervention. However, pain control had the lowest proportion of problem scores. Parlour *et al.* (2014) support these findings in their study, which established that 88.9% of patients who experienced pain were treated appropriately, compared to over 90% in the current study who experienced surgical pain from the surgeries but received adequate pain control. Surgical treatment for trauma explains the patients' brief ICU stay, as their conditions had fewer complications for the majority.

6.7 SUMMARY

The pre- and post-intervention results showed that patients and families were adequately prepared for transfer post-intervention, compared to pre-intervention emanating from improved psychosocial transitional care practice, which largely included improved communication/information and education. Subsequently, there was an overall increase in understanding and comprehension of situations, anxiety reduction, and satisfaction with care in the ICU and the wards. However, families and patients remained dissatisfied with the non-availability of a family waiting room, and families felt alone and isolated in the room. About the nurses, the clinical nursing guideline improved their practice of the transition of care and subsequently enabled a smooth transfer process and transition of care for patients and families from ICU to the wards. The guideline ensured a standardised approach to care before, during and after ICU transfer.

Chapter Seven will present the summary, limitations, recommendations and conclusion of the study.

CHAPTER SEVEN

SUMMARY OF FINDINGS, STRENGTHS AND LIMITATIONS, RECOMMENDATIONS AND CONCLUSIONS

7.1 INTRODUCTION

This final chapter presents the summary of the study findings, strengths and limitations, recommendations arising from the study and the conclusions based on the findings from the study are presented in this chapter. The recommendations include clinical practice and management, nursing education and further research. The study sought to address the following research question:

"*Will a clinical guideline for the transition of care from ICU to the ward* ***(the intervention)*** *developed with input from patients, families, multidisciplinary team, including medical clinicians and nurses, improve the transition of care at QECH?"* The process for the development and pilot testing of the clinical guideline comprised three phases, divided into several steps within the study. The phases included: the exploratory, development and verification and pilot testing phases.

7.2 SUMMARY OF THE FINDINGS

7.2.1 Phase One: Exploratory Phase

This phase aimed to solicit the participants' expert opinions and experiences from the perspectives of the receivers and the providers of transitional care to include their views in the clinical guideline to make it effective. The phase was conducted in 2 steps. Step 1 solicited recently transferred patients' and families' perspectives on the transition of care from ICU to the ward through individual interviews. Step 2 solicited ICU and ward multidisciplinary teams' perspectives on the transition of care from ICU to the ward similarly through individual interviews.

7.2.2 Phase Two: Development and Verification Phase

The objective of this phase was to verify findings obtained from the exploratory phase and to develop the guideline for the transition of care from ICU to the ward on the basis of those findings. It comprised five steps (**steps 3 to 7 of the whole study)**. In **step 3**, data obtained from phase 1 were analysed using content analysis (Elo and Kyngäs, 2008), starting with patients and families, followed by ICU multidisciplinary team and concluding with the ward multidisciplinary team. The analysis of data generated two emergent themes to describe patients' and families' experiences with transitional care: *just told transferred and lacking information,* four major themes for ICU multidisciplinary team: *psychosocial care is not taken into account',* '*we do not prepare them very well*,' '*we have a gap*,' '*we do not follow them up unless otherwise indicated'* and three emergent themes for ward multidisciplinary team which included: *care is a bit sub-optimal, have transferred your patient and our patient when in the ward.*

Furthermore, strategies for facilitating ICU transitional care were generated from the interviews. These included: ICU and ward nurses should increase their involvement in communication and interactions with patients and families; ward nurses should conduct pre-transfer visits of patients and families in the ICU, and ICU nurses should conduct follow-up visits of patients and families on the wards (Tables 5.1).

Step 4 involved conducting an integrative review of literature for documented evidence on the transition of care from ICU, which resulted in the retention of 14 studies. Data was obtained by repeatedly searching the keywords from four electronic databases - PubMed, CINAHL, EBSCOHOST and Scopus. Of the five qualitative studies, two were phenomenological: Strahan and Brown (2005) and Manookian, Dehghan-Nayeri, Negarandeh and Shali (2015), and three were descriptive studies: Athifa *et al.* (2011), James, Quirke and McBride-Henry (2013) and Enger and Andershed (2018). Of the eight quantitative studies, five were non-randomised studies: Mitchell and Courtney (2005a), Tel and Tel (2006), Chaboyer, Thalib *et al.* (2007), Gustad, Chaboyer and Wallis (2008) and Yun *et al.* (2017), while three were descriptive studies: Mitchell and Courtney (2005b), Ludin, Parker and Arbon (2014) and Zakerimoghadam *et al.*, 2016. Only one was a mixed-methods study (Mitchell and Courtney, 2005c). [Tables 4.2 to 4.5].

Key findings revealed that patients and families experienced anxiety (Strahan and Brown, 2005), being female was directly related to anxiety (Zakerimoghadam *et al.*, patients and families were not prepared for changes in the level of care in the wards (Gustad, Chaboyer and Wallis (2008), patients experienced the happiness of return to living, family and a general ward, patients and families experienced separation anxiety from the equipment and from ICU staff and that patients experienced spiritual development which comprised being thankful to God and well-wishing toward others (Manookian *et al.*, 2015). Concerning health care providers, the review established that increased experience in critical care practice positively influenced the provision of transitional care (Ludin, Parker and Arbon, 2014). Communication between ICU and ward nurses and patients and families was poor (James, Quirke and McBride-Henry, 2013); ICU patients' transition was a great responsibility and a considerable challenge, especially for the ward nurses (Enger and Andershed, 2018).

Similar to the interviews, the integrative literature review, generated strategies for facilitating ICU transitional Care including: ward nurses should encourage patients and families to discuss their ICU memories and nightmares; nursing interventions should aim at maximising patients and families' control and help towards reducing anxiety levels; patients and families should be more involved in care, and use a follow-up nurse to co-ordinate care after ICU transfer (Strahan and Brown, 2005); transfer should be structured and formally planned while taking into account spiritual care (Manookian *et al.*, 2015); nurses should understand anxiety experienced by ICU patients and families to guide them in the provision of psychosocial care (Gustad, Chaboyer and Wallis, 2008); more attention should be paid to female patients and families during ICU transfer (Zakerimoghadam *et al.*, 2016); ICU and wards should have "standardised handover, with content and processes that are mutually negotiated" (James, Quirke and McBride-Henry, 2013, p.297) to ensure a smooth transition; ward nurses should be given enough "time to prepare and make agreements with the ICU nurses before the transfer of the patient (Enger and Andershed, 2018); ICU nurses should escort transferred patients to the wards to enhance dialogue on further treatment; ICU nurses should visit patients and their families in the ward (Enger and Andershed, 2018); enhance "interdisciplinary cooperation and communication between units" (Enger and Andershed, 2018, p.193); patients and families should be evaluated emotionally on admission to ICU and at routine intervals; ICU nurses should provide an individualised educational programme on meeting the needs of patients and families, and develop a CCU transfer policy (Tel and

Tel, 2006); ICU nurses should use structured written information to guide their discussion of transfer with patients and families, which should be given to them for reference (Mitchell and Courtney, 2005a, 2005b, 2005c); introduce the services of a CCON to visit each patient prior to ICU transfer, review patients on the wards and conduct clinical education with junior and inexperienced nursing staff (Athifa *et al.*, 2011) as well as patients and families; introduce the services of an ICU LN to facilitate the implementation of ICU transitional care (Yun *et al.*, 2017) and; ward nurses should identify patients and families at high risk for anxiety and ask about their feelings of the transfer from ICU (Chaboyer, Thalib *et al.*, 2007). [Table 5.2].

Step 5 involved drafting the guideline by listing recommendations and their explanations based on results from phase 1 and the integrative literature review (Table 5.3)

Step 6 detailed verification of the drafted guideline by employing both the internal and external multidisciplinary stakeholders within the hospital and across the country, respectively. The aim was to seek and incorporate their opinions and experiences into the clinical guideline to inform the practice of transitional care. The verification process was conducted in three sessions, using different stakeholders before reaching a consensus on the final content. In the first session, 13 stakeholders verified the draft clinical guideline, including one transferred ICU patient, one family member, one hospital director, one ICU nurse, a representative from the Directorate of Nursing Services in the MOH, a representative of the professional body, the Nurses and Midwives Council of Malawi (NMCM), two nurse educators, two matrons of the participating units and three HODs of the participating departments.

During the second session, 15 internal multidisciplinary stakeholders comprising two representatives of hospital management, six departmental heads, five wards in charge, one lecturer and the hospital nurse verified the draft clinical guideline through a dissemination meeting of preliminary study findings. With the help of the designated hospital nurse, the researcher facilitated the discussions using both the power point presentation lectures and printed draft versions of clinical guidelines and guided them through the recommendation statements and their rationales following the process used in the first session. They were asked to indicate if they **agreed, disagreed or were unsure** of the statements as a group.

The hospital contact registered nurse familiar with qualitative research, took notes during the meeting for use in further refinement of the clinical guideline. These internal stakeholders had not formed part of the initial processes of drafting the clinical guideline, nor did they participate in the first session of the clinical guideline verification.

During the third session, 11 stakeholders (one hospital manager, one departmental matron, three nurses in charge and six nurses from the participating units/wards, verified the draft clinical guideline through a second dissemination meeting of preliminary study findings. Similar to the second verification session, the researcher guided the stakeholders through the recommendation statements and their rationales by lecturer using the power point presentations and hard copies of the guideline. The majority of the stakeholders involved in this session comprised the multidisciplinary team members who had participated in phase 1 as well as those who had participated in the second verification session.

Step 7 involved revising and refining the clinical guideline based on comments from the multidisciplinary stakeholders from all the sessions. In session one, the stakeholders agreed with most recommendation statements with few modifications. Only one recommendation statement, "ICU nurses should pay more attention to females during the transfer from ICU to the ward, as being female is directly related to increased anxiety levels", was removed from the guideline based on their recommendation. Four recommendation statements regarding "patient follow up" were combined to form one statement because they looked fragmented and similar according to most of the stakeholders' comments. Therefore, the significant changes at this stage involved restructuring the items for clarity (Table 5.5).

In the second session of the clinical guideline verification, the stakeholders agreed to the changes made during the first session. However, their major change involved splitting the draft clinical guideline into ICU and Ward-specific for easy referencing (Table 5.6 and Table 5.7). During the third session, stakeholders agreed to all the recommendations included in the revised clinical guideline and the splitting of the guideline into ICU and Ward specific clinical guidelines. The major change is that this session involved adding a preamble to each specific clinical guideline to provide some background information.

As there were no further contradictory observations, the consensus on the composition of the clinical guideline was considered to have been reached. However, to ensure a true reflection of the consensus, four nurses who were present at sessions 2 and 3, who also represented the participating units, finally crosschecked the contents and the flow of items in the split versions of the guideline ready for pilot testing.

7.2.3 Phase Three: Pilot Testing Phase.

This phase aimed to pilot test the verified and refined split ICU and ward-specific guidelines. It comprised five steps: pre-intervention assessment, implementation of the guideline, post-intervention assessment, analysis of the assessments, and refining the guideline.

7.2.3.1 Pre-intervention assessment

Overall, the findings were negative during pre-intervention. They demonstrated that patients and families experienced increased anxiety levels and decreased degree of satisfaction with the psychosocial transitional care before, during and after ICU transfer. The cause of the poor experiences with care was largely poor communication between ICU and the ward nurses and with patients and families. Poor communication resulted in poor preparation of patients and families for transfer and poor preparation of the ward nurses to receive and care for the transferred patients and their families.

Unit-specific clinical guidelines for transitional care before, during, and after ICU transfer were developed based on findings from the qualitative component of the study conducted in phase 1 and the integrative literature review conducted in phase 2. The recommendations (interventions) listed in the guidelines were interrelated and centred mainly on improving communication among nurses and with patients and families before, during and after ICU transfer. These guidelines were implemented in the ICU and the wards in Phase 3 (part 2) of the study.

7.2.3.2 Implementation of the intervention

During this stage, nurses in the ICU and adult surgical wards at QECH implemented the verified and refined split ICU and ward-specific guidelines. The intervention began two weeks after the second dissemination meeting, including conducting an educational session and group discussions on the guidelines, supplying the ICU and ward-specific clinical guidelines (Table 5.6 and Table 5.7) respectively for display and reference during implementation in the participating group's units. It also included supervising the implementation.

- The education

During this stage, education of the ICU and ward multidisciplinary teams on the split ICU and ward-specific guidelines and their recommendations was conducted. The contents of the guidelines were shared through a PowerPoint presentation which was organised and facilitated by the researcher. Permission to do the presentation was obtained from the hospital director, and invitations of the multidisciplinary teams to attend the presentation were done two weeks before. The presentation was attended by three clinicians and 20 nurses, seven from the ICU and 13 from the surgical wards. Most of the participants in the PowerPoint presentations had also participated in the exploratory phase of the study and the second dissemination meeting. The PowerPoint presentation followed the recommendation statements outlined in the ICU specific and ward specific clinical guidelines (Table 5.6 and Table 5.7). The processes that were followed to develop the guidelines were also shared with the participants, including findings from the interviews, integrative literature review, and stakeholders' verification. The venue of the presentation was a bigger conference room in the Administration block at the hospital.

- Small Group Discussions

Four group discussions (one from ICU with four nurses and three from the surgical wards with three nurses each, including the nurses in charge) were conducted to further discuss the ICU and ward specific guidelines to increase their understanding of the guidelines before their implementation. Each discussion followed the recommendation statements outlined in

the ICU-specific and ward-specific clinical guidelines (Table 5.6 and Table 5.7). All of the discussions took place in a smaller conference room in the Adult Emergency and Trauma Centre of the hospital.

- Supply of copies of the guidelines

After educating the nurses, the researcher supplied two laminated copies of the clinical guidelines to each participating unit (ICU and surgical wards) for display on their notice boards for reference during implementation. The nurse in charge was encouraged to ensure that all the nurses provided transitional care to patients and families following the guidelines' recommendation statements before, during, and after ICU transfer based on presentations and discussions.

- Supervising the implementation

For three weeks, the researcher worked with the ICU and ward nurses to provide guidance on the implementation. After that, periodic physical meetings were held with them at the nurses' stations or in empty wards (single rooms) depending on space availability to discuss and monitor progress in implementing the guideline and provide support and supervision. These meetings were often conducted when the researcher was collecting data. However, the researcher could also be contacted by the nurse in charge, or she could contact them herself through emails, telephone calls, or a WhatsApp group formed to facilitate communication with them as another way of monitoring progress and providing support and supervision.

The implementation of the guidelines involved the nurses providing transitional care following the recommendation statements as outlined in the guidelines. As the implementation was underway, the researcher collected data until a sample of 65 (n = 65) patients recently transferred from ICU and family members were obtained for comparison with the pre-intervention assessment.

7.2.3.3 Post-intervention assessment

Overall, the findings were significantly positive during post-intervention. The patients and families had reduced levels of anxiety and increased degree of satisfaction with care in the ICU and the wards, and the nurses improved their practice of ICU transition of care.

7.3 STRENGTHS OF THE RESEARCH

The development of the clinical guideline followed standard processes as stipulated by recognised bodies, the NICE and SIGN) to systematically structure the research design and methods for developing this clinical guideline (Aziato & Adejumo, 2015). The process involved establishing the scope or parameters of the guideline to specify its limits in terms of the objective, the target patient group and the procedure for the provision of psychosocial ICU transition of care of transitional care (Hewitt-Taylor, 2004; NICE, 2014; SIGN, 2013). The guideline was also developed to suit the situation burdens and resources available in the local practice environment of Malawi as stipulated by the environment (NICE, 2007b; SIGN, 2014).

To enhance the local appropriateness of the developed guidelines, the researcher engaged a reasonable representation of multidisciplinary stakeholders during the development process through multiple guideline verifications to incorporate their views in the final guidelines (Hewitt-Taylor, 2004). This ensured the content validity of the developed guidelines.

The development of the clinical guidelines also employed multiple methods to generate evidence to support the recommendation statements included in the guidelines. These included conducting individual interviews with patients, families and ICU and ward multidisciplinary teams to obtain participants' expert opinions and/or experiences from perspectives of the receivers and the providers of transitional care to incorporate them into the guidelines. Additionally, an integrative literature review was conducted to ensure that published evidence informed the guideline (Aziato, 2013).

Furthermore, these were the first clinical guidelines on psychosocial ICU transition of care to be developed, as none existed at the participating units of the site at the time of conducting the study.

The process of developing the guidelines in this study has been clearly described making it transparent to facilitate replication.

7.4 LIMITATIONS OF THE STUDY

The following limitations of the study were identified:

Although ICUs play an essential role in the survival of critically ill patients, by design, they occupy fewer beds within the hospital system compared with the much larger percentage of total hospital beds. In line with this, it took longer than anticipated to complete the study to obtain the required sample sizes at each phase.

The use of only four electronic databases - PubMed, CINAHL, EBSCOHOST and Scopus, in searching for studies might have excluded some relevant studies published in other databases, thereby limiting the review process in some ways.

Although a wide range of multidisciplinary stakeholders were involved at various stages of developing the clinical guidelines in this study, the physiotherapists who help with the rehabilitation of patients before, during and after the transfer to the ward were not included.

Conducting the study in only one public and general ICU limits the generalisation of the results to private and discipline-specific ICUs, as they may not represent them. To overcome this, the presentation of the detailed processes and procedures followed in this study was so that readers could judge if the findings could be applicable in their contexts or not.

As the families and patients populations in this study were less educated, it may be difficult to generalise the results to the well-educated ICU populations in Malawi. The researcher learnt from the study that most of them sought critical care services from private hospitals at a fee.

Employing different sets of participants' pre-and post-intervention was another limitation of this study. By nature of the participants, it was impossible to maintain the same pre-intervention participants for re-assessment during post-intervention. Therefore, it is possible that their perspectives were influenced by their mostly positive and mostly negative experiences pre-intervention and post-intervention, respectively.

7.5 RECOMMENDATIONS ARISING FROM THE STUDY

Based on the findings of this study, the following recommendations for clinical practice, nursing education and further research are suggested.

7.5.1 Recommendations for Clinical Practice

For the implementation of transition of care clinical guidelines to be more successful, there is a need for the multidisciplinary team to develop an ICU transfer information booklet to support the exchange of information during face to face discussions with patients and families to ensure uniformity and for reference.

In addition, the multidisciplinary team should also develop checklists for pre-transfer and follow-up visits of patients and families in the ICU for standardisation of the process. Once developed, these should be formally introduced to the new multidisciplinary team members.

7.5.2 Recommendations for Nursing Education

Nursing schools should integrate more content about the transition of psychosocial care into the curriculum to ensure that graduate nurses can anticipate the patient's and families' experiences and provide appropriate care. Evaluation of the patient's and families' emotions on admission to the ICU and at routine intervals before, during and after transfer should be emphasised in nursing education programmes.

Furthermore, they should offer targeted transition of care in-service education or short courses for nurses to anticipate the patients and families' transitional care experiences and provide appropriate care.

7.5.3 Recommendations for Future Research

Replicate the study to include a more significant proportion of educated populations and probably a private ICU to ensure the perspectives of these groups are represented.

This study focused on the transition of care from ICU to the wards as the immediate care units within the first week of transfer from ICU. Another research study is needed to focus on patients' and families' transition of care from hospital to home.

7.6 CONCLUSION

This study employed the transition theory of Meleis *et al.* (2000) to develop nursing clinical practice guidelines for the transition of psychosocial care of patients and families from ICU to the wards, whose positive effects were confirmed post-intervention statistically. The study established that patients and families in the post-intervention group had a significantly increased degree of satisfaction with care and experienced lower anxiety levels than in the pre-intervention group.

In addition, the transitional care practice by the nurses had improved post-intervention compared to their practice in the pre-intervention period. Concerning the transition theory, these results indicated that the intervention increased the patient's and families' awareness and engagement in the care, which facilitated the necessary conditions for the transition, which induced their positive response patterns and subsequently contributed to their positive experiences with care before, during and after ICU transfer.

During the development of the guidelines, opinions and experiences of various internal and external stakeholders, including ICU patients, their families, the multidisciplinary team involved with ICU transition of care, academic critical care experts, representatives of the professional bodies and the MOH, were incorporated to take care of their specific transitional

care needs/requests, which were different for each category of the stakeholders. Therefore, employing the clinical guideline developed in this study enhanced better psychosocial clinical outcomes as the needs/requests of all the concerned stakeholders were represented, leading to the belief that the results can be applied to other general ICUs.

LIST OF REFERENCES

Adamson, H., Murgo, M., Boyle, M., Kerr, S., Crawford, M., Elliott, D., 2004. Memories of intensive care and experiences of survivors of a critical illness: an interview study. *Intensive Critical Care Nurse,* 20, pp. 257–263.

Aiken, L.H., Clarke, S.P., Cheung, R.B., Sloane, D.M., Silber, J.H., 2003. Educational levels Of hospital nurses and surgical patient mortality. *The Journal of the American Medical Association*, 290, pp. 1617–1623.

Alberto, L., Gillespie, B.M., Green, A., del Carmen Martínez, M., Cañete, A., Zotarez, H., Díaz, C.A., Enriquez, M., Gerónimo, M., Chaboyer, W., 2017. Activities undertaken by intensive care unit liaison nurses in Argentina. *Australian Critical Care*, 30, pp. 74–78.

Alberto, L., Zotárez, H., Cañete, Á. A., Niklas, J. E., Enriquez, J. M., Gerónimo, M. R., Martínez, M., Chaboyer, W., 2014. A description of the ICU liaison nurse role in Argentina. *Intensive & Critical Care Nursing*, *30*(1), pp. 31–37. https://doi.org/10.1016/j.iccn.2013.07.001

Almerud, S., Alapack, R.J., Fridlund, B., Ekebergh, M., 2007. Of vigilance and invisibility–being a patient in technologically intense environments. *Nursing in Critical Care*, 12(3), pp. 151-158.

American Psychiatric Association, American Psychiatric Association (Eds.), 2013. Diagnostic and statistical manual of mental disorders: DSM-5, 5th ed. ed. American Psychiatric Association, Washington, D.C.

Amoateng-Adjepong, Y., 2006. Caring for the critically ill in developing countries—Our collective challenge. *Critical Care Medicine*, 34, pp. 1288–1289.

Asadzandi, M., Taghizade Karati, K., Tadrisi, S.D., Ebadi, A., 2011. Effect of prayer on severity of patients illness in intensive care units. *Iranian Journal of Critical Care Nursing*, 4(1), pp. 1-6.

Ashton, F., Hamid, K., Sulieman, S., Eardley, W., Baker, P., 2017. Factors influencing patient experience and satisfaction following surgical management of ankle fractures. *Injury*, *48*(4), pp. 960–965.

Athifa, M., Finn, J., Brearley, L., Williams, T. A., Hay, B., Laurie, K., Leen, T., O'Brien, K., Stuart, M., Watt, M., Leslie, G., 2011. A qualitative exploration of nurse's perception of Critical Outreach Service: a before and after study. *Australian critical care : official journal of the Confederation of Australian Critical Care Nurses*, *24*(1), pp. 39–47. https://doi.org/10.1016/j.aucc.2010.09.001

Atwal, A., 2002. Nurses' perceptions of discharge planning in acute health care: a case study in one British teaching hospital. *Journal of Advanced Nursing*, *39*(5) pp. 450-458.

The Audit Commission, 1999. Critical to Success. The place of efficient and effective critical care services within the acute hospital. London: Audit Commission for Local Authorities and the National Health Service in England and Wales. Retrieved from www.oalib.com/references/5480025 on 16 July 2016.

Auerbach, S.M., Kiesler, D.J., Wartella, J., Rausch, S., Ward, K.R., Ivatury, R., 2005. Optimism, satisfaction with needs met, interpersonal perceptions of the healthcare team, and emotional distress in patients' family members during critical care hospitalization. *American Journal of Critical Care*, 14 (3), pp. 202–210.

Aziato, L., Adejumo, O., 2015. Developing a context appropriate clinical guideline for post-operative pain management in Ghana: A participatory approach. *International Journal of Africa Nursing Sciences*, 2, pp. 26–33.

Azoulay, E., Chevret, S., Leleu, G., Pochard, F., Barboteu, M., Adrie, C., Canoui, P., Le Gall, J.R. and Schlemmer, B., 2000. Half the families of intensive care unit patients experience inadequate communication with physicians. *Critical care medicine*, *28*(8), pp.3044-3049.

Azoulay, E., Pochard, F., Chevret, S., Jourdain, M., Bornstain, C., Wernet, A., Cattaneo, I., Annane, D., Brun, F., Bollaert, P.-E., 2002. Impact of a family information leaflet on effectiveness of information provided to family members of intensive care unit patients: a multicenter, prospective, randomized, controlled trial. *American Journal of Respiratory Critical Care Medicine, 165,* pp. 438–442.

Bailey, J.J., Sabbagh, M., Loiselle, C.G., Boileau, J., McVey, L., 2010a. Supporting families in the ICU: A descriptive correlational study of informational support, anxiety, and satisfaction with care. *Intensive and Critical Care Nursing*, 26 (2), pp. 114–122.

Ball, C., 2007. ACCCN's Critical Care Nursing, D. Elliott, L. Aitken, W. Chaboyer (Eds.), Elsevier, Sydney (2007), ISBN 13: 978-0-7295-3770-6.

Ball, C., 2005. Ensuring a successful discharge from intensive care. *Intensive & Critical Care Nursing*, 21, pp.1–4.

Ball, C., Kirkby, M., Williams, S., 2003. Effect of the critical care outreach team on patient survival to discharge from hospital and readmission to critical care: non-randomised population based study. *British Medical Journal (Clinical research ed.), 327*(7422), pp. 1014.

Bautista, R.E.D., Glen, E.T., Shetty, N.K., 2007. Factors associated with satisfaction with Care among patients with epilepsy. *Epilepsy & Behavior*, 11, pp.518–24.

Beard, H., 2005. Does intermediate care minimize relocation stress for patients leaving the ICU? *Nursing in Critical Care,* 10 (6), pp.272–278.

Bench, S., Day, T., 2010. The user experience of critical care discharge: a meta-synthesis of qualitative research. *International Journal of Nursing Studies*, 47(4), pp. 487–499.

Bench, S.D., Day, T.L., Griffiths, P. 2012. Developing user centred critical care discharge information to support early critical illness rehabilitation using the Medical Research

Council's complex interventions framework. *Intensive and Critical Care Nursing*, 28, pp.123–31.

Bench, S., Day, T., Griffiths, P., 2013. Effectiveness of critical care discharge information in supporting early recovery from critical illness. *Critical Care Nurse*, 33(3), pp.41-52).

Bengtsson, M., 2016. How to plan and perform a qualitative study using content analysis. *Nursing Plus Open*, 2, pp. 8–14.

Berg, B.L 2001. *Qualitative research methods for the social sciences*. (4th ed.). Boston: Allyn & Bacon.

Bernard, H.R., 2000. *Social research methods: qualitative and quantitative approaches*. Sage, Thousand Oaks.

Blegen, M.A., Vaughn, T.E., Goode, C.J., 2001. Nurse experience and education: effect on quality of care. *JONA: The Journal of Nursing Administration,* 31(1), pp.33—9.

Bouras, N., Holt, G., 2007. Psychiatric and Behavioural Disorders in Intellectual and Developmental Disabilities. Cambridge University Press.

Brink, H., Van der Walt, C., Van Rensburg, G.H., 2018. Fundamental of Research Methodology for Healthcare Professionals, 4th ed. Juta and Company Ltd. Cape Town.

Brodsky-Israeli, M., DeKeyser Ganz, F., 2011. Risk factors associated with transfer anxiety among patients transferring from the intensive care unit to the ward. *Journal of Advanced Nursing* 67(3), pp. 510–518.

Broome, M.E. (2000). *Integrative literature reviews for the development of concepts*. In: Rodgers B.L. & Knafl K. A. editors. *Concept development in nursing: foundations, techniques and applications*. Philadelphia: WB Saunders Company. 231–250.

Browman, G.P., Snider, A., Ellis, P., 2003. Negotiating for change. The healthcare manager as catalyst for evidence-based practice: changing the healthcare environment and sharing experience. *Healthcare Papers*, 3(3), pp.10–22.

Bulechek, G. M., Butcher, H. K., McCloskey, D. J. M., Wagner, C., 2013. *Nursing Interventions Classification (NIC)*. London: Elsevier Health Sciences.

Bunn, S., 2007. *An Exploration of the Transition of Patients from Intensive Care to the Ward Environment: A Ward Nursing Perspective* : a Thesis Submitted to the Victoria University of Wellington in Partial Fulfilment of the Requirements for the Degree of Masters of Nursing (Clinical). Victoria University of Wellington.

Burnard, P., 1991. A method of analysing interview transcripts in qualitative research. *Nurse Education Today*, 11, pp. 461-466.

Burns, N., Grove, S.K., Gray, J., 2011. Understanding nursing research: Building an evidence- based practice. Maryland Heights. MO: Elsevier Saunders.

Burns, N., Grove, S.K., 2005. *The Practice of Nursing Research: Conduct, Critique & Utilization* (5th Edition). Elsevier Saunders, St Louis.

Burns, N., Grove, S. 2009. *The Practice of Nursing Research: appraisal, synthesis, and generation of evidence.* 6th ed. St. Louis: W. B. Saunders. ISBN 10: 1416054685.

Carpenito-Moyet, L.J., 2008. *Nursing Diagnosis: Application to Clinical Practice*, 12th ed. Lippincott Williams and Wilkins.

Carr. K., 2002. *Ward visits after Intensive Care discharge: why?* In: Griffiths RD, Jones C, eds. *Intensive Care Aftercare.* Boston, Mass: Butterworth- Heinemann Health, pp.69-82.

Carter, C.A., 2008. From ICU top outreach: A South African Experience. *South African Journal of Critical Care*, 24 (2), pp. 50-55.

Catanzaro, M., 1988. *Using qualitative analytical techniques. In Nursing Research; Theory and Practice* (Woods P. & Catanzaro M., eds), C.V. Mosby Company, New York, pp. 437–456.

Cavanagh, S., 1997. Content analysis: concepts, methods and applications. *Nurse Researcher*, 4, pp.5–16.

Chaboyer, W., Foster, M. M., Foster, M., Kendall, E. 2004a. The Intensive Care Unit liaison nurse: towards a clear role description. *Intensive & Critical Care Nursing 20*(2), pp.77–86.

Chaboyer, W., Foster, M., Kendall, E., James, H., 2004b. The impact of a liaison nurse on ICU nurses' perceptions of discharge planning. *Australian Critical Care, 17*(1), pp. 25–32. https://doi.org/10.1016/s1036-7314(05)80047-5

Chaboyer, W., Foster, M., Kendall, E., James, H., 2002. ICU nurses' perceptions of discharge planning: a preliminary study. *Intensive and Critical Care Nursing.*18 (2), pp. 90-95.

Chaboyer, W., Gillespie, B., Foster, M., Kendall, M., 2005. The impact of an ICU liaison nurse: a case study of ward nurses' perceptions. *Journal of Clinical Nursing,* 14, pp.766—75.

Chaboyer, W., James, H., Kendall, M., 2005. Transitional care after the intensive care unit: current trends and future directions. *Critical Care Nurse*, 25 (3), pp.16–28.

Chaboyer, W., Kendall, E., Kendall, M., Foster, M., 2005. Transfer out of intensive care: a qualitative exploration of patient and family perceptions. *Australian Critical Care*, 18(4) pp.:138-145.

Chaboyer, W., Thalib, L., Alcorn, K., Foster, M., 2007. The effect of an ICU liaison nurse on patients and family's anxiety prior to transfer to the ward: an intervention study. *Intensive and Critical Care Nursing*, 23, pp.362-369.

Chang, J.T., Hays, R.D., Shekelle, P.G., MacLean, C.H., Solomon, D.H., Reuben, D.B., Roth, C.P., Kamberg, C.J., Adams, J., Young, R.T., 2006. Patients' global ratings of their health care are not associated with the technical quality of their care. *Annals of internal medicine, 144*(9) pp. 665–672.

Cheraghi, M.A., Manookian, A., Nasrabadi, A.N., 2014. Human dignity in religion-Embedded cross-cultural nursing. *Nursing Ethics*, 21(8), pp.916-28.

Chick, N., Meleis, A.I., 1986. Transitions: A nursing concern. Retrieved from http://repository.upenn.edu/nrs/9. 17 July 2016.

Chien, W.-T., Chiu, Y.L., Lam, L.W., Ip, W.Y., 2006. Effects of a needs-based education programme for family carers with a relative in an intensive care unit: a quasi-experimental study. *International Journal of Nursing Studies*, 43, pp.39–50.

Cognet, S., Coyer, F., 2014. Discharge practices for the intensive care patient: a qualitative exploration in the general ward setting. *Intensive and Critical Care Nursing*, 30, pp.292–300.

Cohen, J., 1992. Quantitative methods in psychology: A power primer. *Psychological Bulletin*, 112 (1), pp.155-159.

Cohen, M. D., Hilligoss, P.B., 2010. Handoffs in hospitals: a review of the literature on information exchange while transferring patient responsibility or control [Initial draft]. University of Michigan, School of Information.

Cole, F.L., 1988. Content analysis: process and application. *Clinical Nurse Specialist*, 2(1) pp.53–57.

Coleman, E.A., Boult, C., 2003. Improving the quality of transitional care for persons with complex care needs. *Journal of the American Geriatrics Society*, 51(4), pp. 556-557.

Colorafi, K.J., Evans, B., 2016. Qualitative descriptive methods in health science research. *Health Environments Research & Design Journal (HERD*), 9 (4), pp.16-25.

Conn, V.S., Valentine, J.C., Cooper, H.M., Rantz, M.J., 2003. Grey literature in meta-analyses. *Nursing Research,* 52, pp. 256–261.

Corbin, J., Strauss, A., 2008. *Basics of qualitative research: Techniques and procedures for developing grounded theory*. (3rd edition). Thousand Oaks, CA: Sage.

Coyle, M.A., 2001. Transfer anxiety: preparing to leave intensive care. *Intensive and Critical Care Nursing*, 17(3), pp.138-43.

Creswell, J., 2014. Research design: qualitative, quantitative, and mixed methods approaches. Thousand Oaks: SAGE.

Creswell, J.W., 2009. Research design: qualitative, quantitative, and mixed methods approaches. (3rd ed.).Sage Publications: Thousand Oaks, CA.

Creswell, J.W., Plano, C., Vicki, L., 2011. *Designing and conducting mixed methods research*. 2 ed.). Sage Publications: Thousand Oaks, CA.

Crow, H., Gage, H., Hampson, S., Hart, J., Kimber, A., Storey, L., Thomas, H., 2002. Measurement of satisfaction with health care: Implications for practice from a systematic review of the literature. *Health Technology Assessment (Winchester, England), 6*(32), pp. 1–244.

Cullinane, J. P., Plowright, C. I., 2013. Patients' and relatives' experiences of transfer from intensive care unit to wards. *Nursing in Critical Care, 18*(6), pp. 289–296. https://doi.org/10.1111/nicc.12047

Cutler, L., Brightmore, K., Colqhoun, V., Dunstan, J., Gay, M., 2003. Developing and Evaluating critical care follow-up. *Nursing in Critical Care*, 8, pp.116–125.

Cutler, L., Garner, M., 1995. Reducing relocation stress after discharge from the intensive Therapy unit. *Intensive and Critical Care Nursing*, 11, pp.333–335.

Cypress, B.S., 2017. Rigor or reliability and validity in qualitative research: Perspectives, strategies, reconceptualization, and recommendations. *Dimensions of Critical Care Nursing*, 36(4), pp. 253-263.

Cypress, B.S., 2013. Transfer out of intensive care: an evidence-based literature review. *Dimensions of Critical Care Nursing*, 32(5), pp. 244-261.

Daffurn, K., Bishop, G.F., Hillman, K.M., Bauman, A., 1994. Problems following discharge After intensive care. *Intensive Critical Care Nursing*, 10, pp.244–251.

Davidson, J. E., Powers, K., Hedayat, K. M., Tieszen, M., Kon, A. A., Shepard, E., Spuhler, V., Todres, I. D., Levy, M., Barr, J., Ghandi, R., Hirsch, G., Armstrong, D., American College of Critical Care Medicine Task Force 2004-2005, Society of Critical Care Medicine., 2007. Clinical practice guidelines for support of the family in the patient-centered intensive care unit: American College of Critical Care Medicine Task Force 2004-2005. *Critical Care Medicine*, *35*(2), pp. 605–622. https://doi.org/10.1097/01.CCM.0000254067.14607.EB

Davies, D., Dodd, J., 2002. Qualitative research and the question of rigor. *Qualitative Health Research*, 12 (2), pp.279-289.

Dawson, D., McEwen, A., 2005. Critical care without walls: The role of the nurse consultant in critical care. *Intensive and Critical Care Nursing*, 21(6), pp.334-343.

Delva, D., Vanoost, S., Bijttebier, P., Lauwers, P., Wilmer, A., 2002. Needs and feelings of Anxiety of relatives of patients hospitalized in intensive care units: implications for social work. *Social Work in Health Care*, 35, pp.21—40.

Dey, I., 2003. *Qualitative data analysis: A user friendly guide for social scientists*. Routledge.

Dimitrov, D.M., Rumrill, J., 2003. Pretest-posttest designs and measurement of change. *Work,* 20, (2), pp.159-165.

Doak, C.C., Doak, L.G., Root, J.H., 1996. *Teaching Patients with Low Literacy Skills*. J.B. Lippincott Company, Philadelphia.

Downe-Wamboldt, B., 1992. Content analysis: Method, applications, and issues. *Health Care for Women International*, 13, pp.313– 321.

Duffield, C., Diers, D., O'Brien-Pallas, L., Aisbett, C., Roche, M., King, M., Aisbett, K., 2011. Nursing staffing, nursing workload, the work environment and patient outcomes. *Applied Nursing Research*, 24, pp.244–255.

Dünser, M.W., Baelani, I., Ganbold, L., 2006. A review and analysis of intensive care medicine in the least developed countries. *Acute and critical care Medicine*, 34, pp. 1234-1242.

Dy, S.M., Rubin, H.R., Lehmann, H.P., 2005. Why do patients and families request transfers to tertiary care? a qualitative study. *Social Science & Medicine*, 61, pp.1846–1853.

Eddleston, J., Goldhill, D., Morris, J., 2009. *Levels of critical care for adult patients*. London. Intensive Care Society.

Eliott, S., Chaboyer, W., Ernest, D., Doric, A., Endacott, R., 2012. A national survey of Australian Intensive Care Unit (ICU) Liaison Nurse (LN) services. *Australian Critical Care*, 25(4), pp. 253–262. https://doi.org/10.1016/j.aucc.2012.03.004

Elliott, M., Crookes, P., Worrall-Carter, L., Page, K., 2011. Readmission to intensive care: A qualitative analysis of nurses' perceptions and experiences. *Heart Lung*, 40(4), pp.299-309. https://doi.org/10.1016/j.hrtlng.2010.04.006

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., Kyngäs, H., 2014. Qualitative Content Analysis: A Focus on Trustworthiness. *SAGE Open*, 4(1), pp.1–10.

Elo, S., Kyngäs, H., 2008. The qualitative content analysis process. *Journal of Advanced Nursing* 62(1), pp. 107–115. https://doi.org/10.1111/j.1365-2648.2007.04569.x

Endacott, R., Chaboyer, W., 2006. The nursing role in ICU outreach: an international Exploratory study. *Nursing in Critical Care*, 11 (2), pp.94-102. https://doi.org/10.1111/j.1362-1017.2006.00160.x

Endacott, R., Chaboyer, W., Edington, J., Thalib, L., 2010. Impact of an ICU Liaison Nurse Service on major adverse events in patients recently discharged from ICU. *Resuscitation*, 81(2), pp.198–201. https://doi.org/10.1016/j.resuscitation.2009.10.011

Enger, R., Andershed, B., 2018. Nurses' experience of the transfer of ICU patients to general wards: A great responsibility and a huge challenge. *Journal of Clinical Nursing*, 27, pp. e186-e194. https://doi.org/10.1111/jocn.13911

Engström, Å., Andersson, S., Söderberg, S., 2008. Re-visiting the ICU: Experiences of follow-up visits to an ICU after discharge: A qualitative study. *Intensive and Critical Care Nursing*, 24 (4), pp. 233–241. https://doi.org/10.1016/j.iccn.2008.03.002
Eriksson, K., 2006. The Suffering Human Being. Nordic Studies Press.

Eriksson, T., Bergbom, I., 2007. Visits to intensive care unit patients – frequency, duration and impact on outcome. *Nursing in Critical Care*, 12(1), pp.20-26.

Esmonde, L., McDonnell, A., Ball, C., Waskett, C., Morgan, R., Rashidian, A., Bray, K., Adam, S., Harvey, S., 2006. Investigating the effectiveness of critical care outreach services: a systematic review. *Intensive Care Medicine*, 32(10), pp.1713—1721.

Fawcett, J., 2005. *Contemporary nursing knowledge: Analysis and evaluation of nursing*, (2nd ed). F.A. Davis, Philadelphia.

Field, K., Prinjha, S., Rowan, K., 2008. "One patient amongst many": a qualitative analysis of intensive care unit patients' experiences of transferring to the general ward. *Critical Care*, 12, pp. 1–9.

Fitzpatrick, E., Hinkle, J., Oskrochi, R.G. 2009. Identifying the perception of needs of family members visiting and nurses working in the Intensive Care Unit. *Journal of Neuroscience Nursing*, 41(2), pp.85-91.

Fleischer, S., Berg, A., Behrens, J., Kuss, O., Becker, R., Horbach, A., Neubert, T.R., 2014. Does an additional structured information program during the intensive care unit stay reduce anxiety in ICU patients?: a multicenter randomized controlled trial. *BMC Anesthesiology*, 14, pp. 1–11.

Flemming, K., 2007. The knowledge base for evidence-based nursing: a role for mixed methods research? *Advances in Nursing Science,* 30 (1) pp. 41–51.

Flick, U., 2002. *An Introduction to Qualitative Research*, 2nd ed. SAGE, London.

Forsberg, A., Lindgren, E., Engström, Å., 2011. Being transferred from an intensive care unit to a ward: searching for the known in the unknown. *International Journal of Nursing Practice*, 17 (2), pp. 110–116.

Francis, R., 2013. The Mid Staffordshire NHS Foundation Trust Public Inquiry. London: HMSO.

Fraser, M.W., Richman, J.M., Day, S.H., Galinsky, M.J., 2009. *Intervention Research: Developing Social Programs*. Oxford University Press, USA.

Frazier, S.K., Moser, D.K., Riegel, B., McKinley, S., Blakely, W., Kim, K.A., Garvin, B.J., 2002. Critical care nurses' assessment of patients' anxiety: reliance on physiological and Behavioural parameters. *American Journal of Critical Care*, 11(1), pp.57–64.

Galvin, K.T., 2010. Revisiting caring science: some integrative ideas for the 'head, hand and heart' of critical care nursing practice. Nursing in Critical Care, 15 (4), pp. 168-75.

Ganong, L.H., 1987. Integrative reviews of nursing research. *Research in Nursing & Health*, 10, pp. 1-11.

Garber, A.M., 2005b. Evidence-based guidelines as a foundation for performance incentives. *Health Affairs*, 24 (1), pp. 174-179.

Garcia-Caballos, M., Ramos-Diaz, F., Jimenez-Moleon, J.J., Bueno-Cavanillas, A., 2010. Drug- related problems in older people after hospital discharge and interventions to reduce them. *Age and Ageing*. 39(4), pp.430–8

Gillis, A., Jackson, W., 2002. *Research for nurses: Methods and interpretation*. FA Davis Company.

Government of the Republic of Malawi, 2017. Government of the Republic of Malawi Health Sector Strategic Plan II 2017-2022, Towards Universal Health Coverage. In: Ministry of Health Malawi Government.

Graneheim, U.H., Lundman, B., 2004. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24, pp. 105–112.

Gray, J., Grove, S.K., Sutherland, S., 2017. Burns and Grove's the Practice of Nursing Research: Appraisal, Synthesis, and Generation of Evidence (8th ed). W.B. Saunders Company, Philadelphia.

Green, A., Edmonds, L., 2004. Bridging the gap between the intensive care unit and general Wards-the ICU Liaison Nurse. *Intensive and Critical Care Nursing*, 20(3), pp.133-143.

Greene, J.C., Caracelli, V.J., 2003. Making Paradigmatic Sense of Mixed Methods practice. In A. Tashakkori & C. Teddlie (Eds.), Handbook of mixed methods in social and behavioral research (pp. 91–110). Thousand Oaks, CA: Sage.

Griffiths, R.D., Jones, C., 2002. Why is ICU follow-up needed? In R. D. Griffiths, & C. Jones (Eds.), Intensive Care After Care. Oxford: Butterworth & Heinemann. Pp. 1-4.

Grove, K., Gray, J., Burns, N. 2015. *Understanding Nursing Research: Building on Evidence-Based Practice*. ISBN: 978-1-4557-7060-1

Gundo, R., Lengu, E.S., Maluwa, A., Mtalimanja, O., Chipeta, D., Kadyaudzu, C., 2014. An audit of admissions to intensive care unit at Kamuzu Central Hospital in Malawi. *Open Journal of Nursing*, 4, pp.583-589.

Gustad, L.T., Chaboyer, W., Wallis, M., 2008. ICU patient's transfer anxiety: a prospective cohort study. *Australian Critical Care*, 21(4), pp.181–9.

Häggström, M., Asplund, K., Kristiansen, L., 2014. Important quality aspects in the transfer process. *International Journal of Health Care Quality Assurance*, 27 (2), pp.123-139.

Häggström, M., Asplund, K., Kristiansen, L., 2012. How can nurses facilitate patient's Transitions from intensive care?: a grounded theory of nursing. *Intensive and Critical Care Nursing*, 28 (4), pp. 224-233.

Häggström, M., Asplund, K., Kristiansen, L., 2009. Struggle with a gap between intensive care units and general wards. *International Journal of Qualitative Studies on Health and Well-being*, 4 (3), pp.181–192.

Häggström, M., Bäckström, B. 2014. Organizing safe transitions from Intensive Care. *Nursing research and practice*, 11, pp.1-1.

Haines, S., Coad, S., 2001. Supporting ward staff in acute care areas: Expanding the service. *Intensive & Critical Care Nursing, 17*, pp.105-109.

Haines, S., Crocker, C., Leducq, M., 2001b. Providing continuity of care for patients Transferred from ICU. *Professional Nurse*, (London, England), 17(1), pp.17-21.

Harel, Z., Wald, R., Perl, J., Schwartz, D., Bell, C.M., 2012. Evaluation of deficiencies in Current discharge summaries for dialysis patients in Canada. *Journal of Multidisciplinary Healthcare*, 5, pp.77–84.

Heale, R., Twycross, A., 2015. Validity and reliability in quantitative studies. *Evidence Based Nursing*, 18 (3), pp.66-67.

Hellesø, R., Lorensen, M., Sorensen, L., 2004. Challenging the information gap – the patients transfer from hospital to home health care. *International Journal of Medical Informatics*, 73 (7-8), pp.569–580. https://doi.org/10.1016/j.ijmedinf.2004.04.009

Hesselink, G., Schoonhoven, L., Barach, P., Spijker, A., Gademan, P., Kalkman, C., Liefers, J., Vernooij-Dassen, M., & Wollersheim, H. (2012). Improving patient handovers from hospital to primary care: a systematic review. *Annals of internal medicine*, *157*(6), pp. 417–428. https://doi.org/10.7326/0003-4819-157-6-201209180-00006

Hewitt-Taylor, J., 2004. Clinical guidelines and care protocols. *Intensive and Critical Care Nursing*, 20 (1), pp.45-52.

Hofhuis, J.G., Spronk, P.E., van Stel, H.F., Schrijvers, A.J., Rommes, J.H., Bakker, J., 2008. Experiences of critically ill patients in the ICU. *Intensive and Critical Care Nursing,* 24(5), pp. 300–13.

Holden, J., Harrison, L., Johnson, M., 2002. Families, nurses and intensive care patients: a review of the literature. *Journal of Clinical Nursing*, 11(2), pp.140-148.

Holloway, I., Galvin, K., 2016. *Qualitative Research in Nursing and Healthcare* (4th Ed) 376pages. ISBN: 978-1-118-87449-3

Hsieh, H.-F., Shannon, S.E., 2005. Three approaches to qualitative content analysis. *Qualitative Health Research,* 15, pp.1277– 1288.

Huber, D.L., McClelland, E., 2003. Patient preferences and discharge planning transitions. *Journal of Professional Nurse*, 19(4), pp.204—10.

Institute of Medicine (IOM). 2011. *Clinical Practice Guidelines We Can Trust.* Washington, DC: The National Academies Press.

Institute of Medicine (US) Committee to Design a Strategy for Quality Review and Assurance in Medicare, & Lohr, K. N. (Eds.). (1990). *Medicare: A Strategy for Quality Assurance*. National Academies Press (US).

Jaipaul, C.K., Rosenthal, G.E., 2003. Are older patients more satisfied with hospital care than younger patients? *Journal of General Internal Medicine*, 18, pp.23–30.

James, S., Quirke, S., McBride-Henry, K., 2013. Staff perception of patient discharge from ICU to ward-based care. *Nursing in Critical Care*, 18(6), pp.297-306.

Jenkinson, C., Coulter, A., Bruster, S., 2002b. The Picker Patient Experience Questionnaire: development and validation using data from in-patient surveys in five countries. *International Journal for Quality in Health Care*, 14(5) pp. 353-358.

Johnson, D., Wilson, M., Cavanaugh, B., Bryden, C., Gudmundson, D., Moodley, O., 1998. Measuring the ability to meet family needs in an intensive care unit. *Critical Care Medicine*, 26, pp.266-271. https://doi.org/10.1097/00003246-199802000-00023

Johnson, R.B., Onwuegbuzie, A.J., Turner, L.A., 2007. Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1 (2), pp.112–133.

Joint Commission on Accreditation of Healthcare Organizations (JCAHO). (2005). Strategies to improve handoff communication - implementing a process to resolve questions. *Joint Commission Perspective on Patient Safety*, 5, pp.11. http://www.jcaho.org (accessed 13/07/2018).

Kazidule, R., Barratt-Due, A., Baker, T., 2019. Queen Elizabeth Central Hospital intensive Care Units Handbook.

Khanum, S., Souza, M.D.L. de, Naz, N., Sasso, G.T.M.D., Brüggemann, O.M., Heideman, I.T.S.B., 2016. The use of networking in nursing practice—An integrative review. *Societies*, 6(3), pp.22.

Kleinpell, R.M., 2004. Randomized trial of an intensive care unit–based early discharge planning intervention for critically ill elderly patients. *American Journal of Critical Care*, 13, pp.335-345.

Kohi, T.W., Obogo, M.W., Mselle, L.T., 2016. Perceived needs and level of satisfaction with care by family members of critically ill patients at Muhimbili National hospital intensive care units, Tanzania. *BMC Nursing*, 15 pp.1-7.

Kripalani, S., Jackson, A. T., Schnipper, J. L., & Coleman, E. A., 2007. Promoting effective transitions of care at hospital discharge: a review of key issues for hospitalists. *Journal of hospital medicine, 2*(5), pp. 314–323. https://doi.org/10.1002/jhm.228

Krippendorff, K., 2004. Reliability in content analysis: Some common misconceptions and recommendations. *Human Communication Research*, 30(3), pp.411-433.

Krueger, R. A., Casey, M. A., (2010). *Focus groups*. 4th edition. Thousand Oaks, CA: Sage Publications.

Kulatunga, U., Amaratunga, R.D.G., Haigh, R.P., 2007. Structuring the unstructured data: the use of content analysis Conference or Workshop Item. available at: http://usir.salford.ac.uk/9857/

Kulnik, S.T., Wulf, A.-K., Brunker, C., 2019. Experiences of long-distance visitors to Intensive care units at a regional major trauma centre in the United Kingdom: A cross-sectional survey. *Intensive and Critical Care Nursing*, 55, p. 102754. ISSN (print) 0964-3397

Lacey, A., Luff, D., 2007. Qualitative research analysis. NIHR RDS for the East Midlands/ Yorkshire & the Humber.

Lee, C.H., Sung, Y.H., Yi, Y.H., Cho, Y.A., Kwon, I.G., 2007. The role analysis of intensive care unit nurse and critical care advanced practice nurse. *Journal of Korean Clinical Nursing Research, 13*, pp.93-108.

Leith, B.A., 1999. Patients' and family members' perceptions of transfer from intensive care. *Heart & Lung*, 28 (3), pp.210–218.

Leith, B.A., 1998. Transfer anxiety in critical care patients and their family members. *Critical Care Nurse, 18*(4), pp. 24-32.

Leonardsen, A. L., Grøndahl, V. A., Ghanima, W., Storeheier, E., Schönbeck, A., Løken, T. A., Bakken, N., Letting, G. S., Holst, R., Jelsness-Jørgensen, L. P., 2017. Evaluating patient experiences in decentralised acute care using the Picker Patient Experience Questionnaire; methodological and clinical findings. *BMC Health Services Research, 17*(1), p. 685. https://doi.org/10.1186/s12913-017-2614-4

Li, P., Stelfox, H.T., Ghali, W.A., 2011. A prospective observational study of physician handoff for intensive-care-unit-to-ward patient transfers. *The American Journal of Medicine*, 124, pp. 860–867.

Liberati, A., Altman, D.G., Tetzlaff, J.M., Mulrow, C.D., Gøtzsche, P.C., Ioannidis, J.P., Clarke, M., Devereaux, P.J., Kleijnen, J., Moher, D., 2009. The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration. *PLoS Medicine, 6.*

Lilly, C.M., Daly, B.J., 2007. The healing power of listening in the ICU. *New England Journal of Medicine*, 356(5), pp.513—5.

Lin, F., Chaboyer, W., Wallis, M., Miller, A., 2013. Factors contributing to the process of intensive care patient discharge: an ethnographic study informed by activity theory. *International Journal of Nursing Studies*, 50(8), pp.1054-66.

Lincoln, Y.S., Guba, E.G., 1985. *Naturalistic inquiry.* Sage Publications, Beverly Hills, California.

Linton, S., Grant, C., Pellegrini, J., 2008. Supporting families through discharge from PICU to the ward: the development and evaluation of a discharge information brochure for families. *Intensive and Critical Care Nursing*, 24(6), pp.329-337.

Ludin, S.M., Parker, S., Arbon, P., 2014. A survey of Malaysian Critical Intensive Care unit nurses' awareness of patients' transition experiences (PE) and transitional care practice (TCP).*Intensive and Critical Care Nursing*, 30 (4), pp.196—203.

Lykkegaard, K., Delmar, C., 2013. A threat to the understanding of oneself: intensive care patients' experiences of dependency. *International Journal of Qualitative Studies on Health and Well-Being*, 8(1), pp.20934.

Makaryus, A.N., Friedman, E.A., 2005. Patients' understanding of their treatment plans and diagnosis at discharge. *Mayo Clinic Proceedings*, 80(8), pp.991-994.

Malawi Ministry of Health and ICF International. 2014. Malawi Service Provision Assessment Survey 2013-14: Key Findings. Rockville, Maryland, USA: MOH and ICF International.

Malley, A., Kenner, C., 2016. Transitions in care: a critical review of measurement. *Journal of perioperative & critical intensive care nursing*, *2*(4), pp. 132. https://doi.org/10.4172/2471-9870.1000132

Manchikanti, L., Falco, F. J., Singh, V., Benyamin, R. M., Racz, G. B., Helm, S., 2nd, Caraway, D. L., Calodney, A. K., Snook, L. T., Smith, H. S., Gupta, S., Ward, S. P., Grider, J. S., & Hirsch, J. A., 2013. An update of comprehensive evidence-based guidelines for interventional techniques in chronic spinal pain. Part I: introduction and general considerations. *Pain physician*, *16*(2 Suppl), pp.S1–S48.

Maniaci, M.J., Heckman, M.G., Dawson, N.L., 2008. Functional health literacy and understanding of medications at discharge. *Mayo Clinic Proceedings*. 83(5), pp.554-558.

Manookian, A., Nayeri, N.D., Negarandeh, R., Shali, M., 2015. The lived experiences of Intensive care patients on transfer to a general ward. *Nursing Practice Today, 2*(2), pp.52.61.

Marshall, J.C., Bosco, L., Adhikari, N.K., Connolly, B., Diaz, J.V., Dorman, T., Fowler, R.A., Meyfroidt, G., Nakagawa, S., Pelosi, P., 2017. What is an Intensive Care Unit (ICU): A Report of the Task Force of the World Federation of Societies of Intensive and Critical Care Medicine. *Journal of Critical Care*, 37, pp.270–276.

Massey, D., Aitken, L.M., Wendy, C., 2008. What factors influence suboptimal ward care in the acutely ill ward patient? *Australian Critical Care*, 21(3), pp.127-140.

McColl, M. A., Bickenbach, J., Johnston, J., Nishihama, S., Schumaker, M., Smith, K., Smith, M., Yealland, B., 2000. Changes in spiritual beliefs after traumatic disability. *Archives of physical medicine and rehabilitation*, *81*(6), pp. 817–823. https://doi.org/10.1016/s0003-9993(00)90117-5

McKinley, S., Madronio, C., 2008. Validity of the Faces Anxiety Scale for the assessment of state anxiety in Intensive Care patients not receiving mechanical ventilation. *Journal of Psychosomatic Research*, 64 (5), pp.503-507.

McKinley, S., Nagy, S., Stein-Parbury, J., Bramwell, M., Hudson, J., 2002. Vulnerability and security in seriously ill patients in Intensive Care. *Intensive and Critical Care Nursing*, 18(1), pp.27–36.

McKinney, A.A., Deeny, P., 2002. Leaving the Intensive Care Unit: a phenomenological study of the patients' experience. *Intensive Critical Care Nursing*, 18(6), pp.320—331.
McKinney, A.A., Melby, V., 2002. Relocation stress in critical care: A review of the literature. *Journal of Clinical Nursing,* 11(2), pp.149-157.

Meleis, A.I., 2010. Transitions theory: Middle range and situation specific theories in nursing research and practice. New York, NY: Springer Publishing Company.

Meleis, A., Sawyer, L., Im, E., Messias, D., Schumacher, K., 2000. Experiencing transitions: an emerging middle-range theory. *Advanced Nursing* Science, 23, pp.12–28.

Melnyk, B.M., Fineout-Overholt, E., 2011. Evidence-based practice in nursing and healthcare: A guide to best practice, 2nd ed. Lippincott Williams and Wilkins.

Miles, M.B., Huberman, A.M., 1994. Qualitative data analysis: An expanded sourcebook. (2nd Edition). Sage Publications, Thousand Oaks, CA.

Ministry of Health 2011. Health Sector Strategic Plan 2011-2016, Lilongwe.

Mitchell, M.L., Courtney, M., 2005a. An intervention study to improve the transfer of ICU patients to the ward— evaluation by family members. *Australian Critical Care,* 18 (2), pp. 61–69.

Mitchell, M., Courtney, M., 2005b. An intervention study to improve the transfer of ICU patients to the ward— evaluation by ICU nurses. *Australian Critical Care,* 18(3), pp.123-128.

Mitchell, M.L., Courtney, M., 2005c. Improving transfer from the Intensive Care Unit: the development, implementation and evaluation of a brochure based on Knowles' Adult Learning Theory. *International Journal of Nursing Practice*, 11 (6), pp.257–268.

Mitchell, M.L., Courtney, M., 2004. Reducing family members' anxiety and uncertainty in illness around transfer from Intensive Care: an intervention study. *Intensive Critical Care Nursing*, 20, pp.223-231.

Mitchell, M.L., Courtney, M., Coyer, F., 2003. Understanding uncertainty and minimising families' anxiety at the time of transfer from ICU. *Nursing and Health Sciences*, 5, pp.207-217.

Mitchell, M., Dwan, T., Takashima, M., Beard, K., Birgan, S., Wetzig, K., Tonge, A., 2019. The needs of families of trauma Intensive Care patients: A mixed methods study. *Intensive & critical care nursing*, *50*, pp.11–20.

Munyiginya, P., Brysiewicz, P., 2014. Exploring the needs of family members of patients in the Intensive Care Unit of one hospital in Kigali, Rwanda. *Southern African Journal of Critical Care*, 30(1) pp.6-8.

National Institute for Health and Care Excellence (NICE). 2007a. Acutely ill patients in hospital. Recognition of and response to acute illness in adults in hospital. Clinical guideline [CG50]. www.nice.org.uk/guidance/cg50 (accessed 17 May 2018).

National Institute for Health and Care Excellence (NICE), 2007b. The guideline Development process - an overview for stakeholders, the public and the NHS. (3rd ed). (accessed 17 May 2018).

National Institute for Health and Care Excellence (NICE). 2014. Developing Nice Guidelines: The Manual. Available on https://www.nice.org.uk [Accessed 20/08/2021].

National Institute for Health and Care Excellence (NICE).2009. Rehabilitation after critical illness in adults. London: NICE. nice.org.uk/guidance/cg83

National Statistics Office, 2019. 2018 Malawi population and Housing. Zomba.

Ndabavunye, I., 2005. De la pertinence du rite de passage dans la reconstruction du lien social au Rwanda. *Thérapie Familiale*, 26, pp.103-123.

Neves, F.B.C.S., Dantas, M.P., Bitencourt, A.G.V., Vieira, P.S., Magalhães, L.T., Teles, J.M.M., Farias, A.M. de C., Messeder, O.H.C., 2009. Analysis of family satisfaction in Intensive Care Unit. *Revista Brasileira de Terapia Intensiva*, *21*(1), pp.32-37.

O'Brien, J.L., Moser, D.K., Riegel, B., Frazier, S.K., 2001. Comparison of anxiety assessments between clinicians and patients with acute myocardial infarction in cardiac critical care units. *American Journal of Critical Care*, 10, pp.97-103.

Odell, M., 2000. The patient's thoughts and feelings about their transfer from Intensive Care to the general ward. *Journal of Advanced Nursing,* 31 (2), pp.322–329.

Odell, M., Gerber, K., Gager, M., 2010. Call 4 Concern: patient and relative activated critical care outreach. *British journal of nursing (Mark Allen Publishing)*, *19*(22), pp.1390–1395. https://doi.org/10.12968/bjon.2010.19.22.1390.

O'Leary, K.J., Killarney, A., Hansen, L.O., Jones, S., Malladi, M., Marks, K., Shah, H.M., 2016. Effect of patient-centred bedside rounds on hospitalized patients' decision control, activation and satisfaction with care. *BMJ quality & safety*, *25*(12), pp.921–928.

Olson, D.P., Windish, D.M., 2010. Communication discrepancies between physicians and hospitalized patients. *Archives of Internal Medicine,* 170(15), pp.1302–7.

Ong, M. S., Coiera, E., 2011. A systematic review of failures in handoff communication during intrahospital transfers. *Joint Commission journal on quality and patient safety*, *37*(6), pp.274–284. https://doi.org/10.1016/s1553-7250 (11)37035-3.

Op't Hoog, S., Dautzenberg, M., Eskes, A. M., Vermeulen, H., Vloet, L., 2020. The experiences and needs of relatives of intensive care unit patients during the transition from the intensive care unit to a general ward: A qualitative study. *Australian critical care, 33*(6), pp.526–532. https://doi.org/10.1016/j.aucc.2020.01.004

Oxford English Dictionary, 2013. Oxford, UK: Oxford University Press.

Pace, R., Pluye, P., Bartlett, G., Macaulay, A.C., Salsberg, J., Jagosh, J., Seller, R., 2012. Testing the reliability and efficiency of the pilot Mixed Methods Appraisal Tool (MMAT) for systematic mixed studies review. *International Journal of Nursing Studies,* 49 (1), pp.47–53.

Pallant, J., 2020. SPSS survival manual: A step-by- step guide to data analysis using SPSS. 4th Edition, Allen & Unwin, Berkshire.

Papathanassoglou, E.D., Patiraki, E.I., 2003. Transformations of self: a phenomenological investigation into the lived experience of survivors of critical illness. *Nursing in Critical Care*, 8(1), pp. 13-21.

Park, J.H., Yoo, M.S., Son, Y.J., Bae, S.H., 2010. Factors influencing relocation stress syndrome in patients following transfer from Intensive Care Units. *Journal of Korean Academic Nursing*, 40(3), pp.307-16.

Parliamentary and Health Service Ombudsman, 2009.Annual reports. Available at: www.ombudsman.org.uk/index.html (accessed 22/2/16)

Parlour, R., Slater, P.F., McCormack, B., Gallen, A., Kavanagh, P., 2014. The relationship between positive patient experience in acute hospitals and person-centred care. *International Journal of Research in Nursing*, 5(1), pp.27–36.

Pattison, N.A., Dolan, S., Townsend, P., Townsend, R., 2007. After critical care. A study to explore patients' experiences of a follow-up service. *Journal of Clinical Nursing*, 16, pp. 2122–213.

Patton, M.Q., 2002. *Qualitative Research and Evaluation Methods* (3rd edition.). Sage Publications, Thousand Oaks, CA.

Paul, F., Hendry, C., Cabrelli, L., 2004. Meeting patient and relatives' information needs Upon transfer from an Intensive Care Unit: The development and evaluation of an information booklet. *Journal of Clinical Nursing*, 13(3), pp.396-405.

Perneger, T.V., Charvet-Bérard, A., Perrier, A., 2008. Patient assessments of the most important medical decision during a hospitalization. *Journal of General Internal Medicine*, 23, pp.1659–1665.

Perren, A., Conte, P., De Bitonti, N., Limoni, C., Merlani, P., 2008. From the ICU to the ward: cross checking of the physician's transfer report by Intensive Care nurses. *Intensive Care Medicine*, 34, pp.2054–2061.

Pirret, A.M., 2008. The role and effectiveness of a nurse practitioner led critical care Outreach service. *Intensive and Critical Care Nursing*, 24(6), pp.375–82.

Pluye, P., Gagnon, M.-P., Griffiths, F., Johnson-Lafleur, J., 2009. A scoring system for appraising mixed methods research, and concomitantly appraising qualitative, quantitative and mixed methods primary studies in Mixed Studies Reviews. *International Journal of Nursing Studies*, 46 (4), pp.529–546.

Pluye, P., Roberts, E., Cargo, M., Bartlett, G., O'Cathain, A., Griffiths, F., Boardman, F., Gagnon, M.P.; McRousseu., Roberts, E, 2011. *Proposal: A mixed methods appraisal tool for systematic mixed studies reviews.* Retrieved on (04/02/2018) from http://mixedmethodsappraisaltoolpublic.pbworks.com. Archived by WebCite® at http://www.webcitation.org/5tTRTc9yJ

Pochard, F., Azoulay, E., Chevret, S., Lemaire, F., Hubert, P., Canoui, P., Grassin, M., Zittoun, R., le Gall, J. R., Dhainaut, J. F., Schlemmer, B., & French FAMIREA Group (2001). Symptoms of anxiety and depression in family members of intensive care unit patients: ethical hypothesis regarding decision-making capacity. *Critical care medicine, 29*(10), pp. 1893–1897. https://doi.org/10.1097/00003246-200110000-00007

Pochard, F., Darmon, M., Fassier, T., Bollaert, P. E., Cheval, C., Coloigner, M., Merouani, A., Moulront, S., Pigne, E., Pingat, J., Zahar, J. R., Schlemmer, B., Azoulay, E., French FAMIREA study group, 2005. Symptoms of anxiety and depression in family members of intensive care unit patients before discharge or death. A prospective multicenter study. *Journal of critical care, 20*(1), pp.90–96. https://doi.org/10.1016/j.jcrc.2004.11.004

Polit, D.F., Beck, C.T., 2010. *Essentials of Nursing Research: Appraising Evidence for Nursing Practice*. Lippincott Williams & Wilkins, 610 pages.

Polit, D.F., Beck, C.T., 2008. *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. 8th edition. Philadelphia: Lippincott Williams & Wilkins.

Polit, D.F., Beck, C.T., 2004. *Nursing Research: Principles and Methods.* 7th edition, Philadelphia, J.B. Lippincott William & Wilkins Company.

Polkinghorne, M., Arnold, A., 2014. A Six-Step Guide to Using Recursive Abstraction Applied to the Qualitative Analysis of Interview Data. Published in the UK by Bournemouth University © 2014, ISBN 978-1-85899-296-9 Retrieved from http://eprints.bournemouth.ac.uk/21367/ 24 /August 2017.

Population Reference Bureau (2000). Conveying concerns: Women report on families in transition. Accessed 23 January 2021 from https://www.popline.org/node/242558

Powell, J., 2002. Caring for patients after ICU admission. *Kai Tiaki: Nursing New Zealand*, 8, pp.24 25.

Prin, M., Wunsch, H., 2014. The role of stepdown beds in hospital care. *American Journal of Respiratory and Critical Care Medicine,* 190(11), pp.1210–1216.

Pulia, M., 2011. Simple Tips to Improve Patient Satisfaction. *American Academy of Emergency Medicine*. 18(1), pp.18–19.

Rahmqvist, M., Bara, A.C., 2010. Patient characteristics and quality dimensions related to Patient satisfaction. *International Journal for Quality in Health Care,* 22, pp.86–92.

Ramsay, P., Huby, G., Thompson, A., Walsh, T., 2014. Intensive care survivors' experiences of ward-based care: M eleis' theory of nursing transitions and role development among critical care outreach services. *Journal of Clinical. Nursing,* 23, pp.605–615.

Rao, J.K., Anderson, L.A., Inui, T.S., Frankel, R.M., 2007. Communication interventions make a difference in conversations between physicians and patients: a systematic review of the evidence. *Medical Care,* pp. 340–349.

Rattray, J.E., Johnston, M., Wildsmith, J.A.W., 2005. Predictors of emotional outcomes of Intensive Care. *Anaesthesia,* 60 (11), pp.1085–92.

Richards, L., Morse, J.M., 2012. Readme first for a user's guide to qualitative methods. Sage.

Rodríguez-Huerta, M. D., Álvarez-Pol, M., Fernández-Catalán, M. L., Fernández-Vadillo, R., Martín-Rodríguez, M., Quicios-Dorado, B., Díez-Fernández, A. (2019). An informative nursing intervention for families of patients admitted to the intensive care unit regarding the satisfaction of their needs: The INFOUCI study. *Intensive & critical care nursing*, *55*, p. 102755. https://doi.org/10.1016/j.iccn.2019.102755

Rolfe, G., 2006. Validity, trustworthiness and rigour: quality and the idea of qualitative research. *Journal of Advanced Nursing*. 53, pp. 304–310.

Royal College of Nursing, 2009. *Research Ethics: RCN Guidance for Nurses*. RCN, London.

Russel, B.H., 2000. Social research methods: qualitative and quantitative approaches. SAGE publications.

Russell, S., 2000. Continuity of care after discharge from ICU. *Professional Nurse*, (London, England) 15(8), pp.497-500.

Samuelson, K.A., Corrigan, I., 2009. A nurse-led intensive care after-care programme – development, experiences and preliminary evaluation. *Nursing in Critical Care*, 14, pp.254–263.

Sandelowski, M., 2000. Focus on research methods: Whatever happened to qualitative description? *Research in Nursing & Health*, 23(4) pp. 334-340.

Sandelowski, M., 1995. Qualitative analysis: what it is and how to begin. *Research in Nursing and Health*, 18, pp. 371–375.

Santana Cabrera, L., Ramírez Rodríguez, A., García Martul, M., Sánchez Palacios, M., Martín González, J.C., Hernández Medina, E., 2007. Satisfaction survey administered to the relatives of critical patients. *Medicina Intensiva,* 31(2) pp.57-61.

Schandl, A.R., Brattström, O.R., Svensson-Raskh, A., Hellgren, E.M., Falkenhav, M.D., Sackey, P.V., 2011. Screening and treatment of problems after intensive care: a descriptive study of multi- disciplinary follow-up. *Intensive and Critical Care Nursing,* 27, pp. 94–101.

Schlosser, R.W., 2007. Appraising the Quality of Systematic Reviews. Focus-National Center or the Dissemination of Disability Research (NCDDR). *Technical Brief,* 17, pp.1–8.

Schumacher, K.L., Meleis, A. lbrahim, 1994. Transitions: A central concept in nursing. *Image- the Journal of Nursing Scholarship, 26(2),* pp.119-127.

Scottish Intercollegiate Guideline Network (SIGN) (2013/4). SIGN 50: *A Guideline for Developer's Handbook.* Retrieved from http://sign.ac.uk/guidelines/fulltext/50/index.html. 14 July 2016.

Seligman, M.E.P., Rosenhan, D.L., Walker, E.F., 2001. *Abnormal psychology*, (4th ed.) New York: W.W. Norton & Company, Inc

Sexton, A., Chan, C., Elliott, M., Stuart, J., Jayasuriya, R., Crookes, P., 2004. Nursing handovers: do we really need them. *Journal Nursing Management,* 12, pp.37—42.

Shekelle, P., Woolf, S., Grimshaw, J.M., Schünemann, H.J., Eccles, M.P., 2012. Developing clinical practice guidelines: reviewing, reporting, and publishing guidelines; updating guidelines; the emerging issues of enhancing guideline implementability and accounting for comorbid conditions in guideline development. *Implementation science: IS*, *7*, p. 62. https://doi.org/10.1186/1748-5908-7-62.

Shendell-Falik, N., Feinson, M., Mohr, B.J., 2007. Enhancing patient safety: improving the patient handoff process through appreciative inquiry. *The Journal of Nursing Administration*, 37, pp. 95–104.

Shenton, A.K., 2004. Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22, pp.63–75.

Siemsen, I. M., Madsen, M. D., Pedersen, L. F., Michaelsen, L., Pedersen, A. V., Andersen, H. B., Østergaard, D. 2012. Factors that impact on the safety of patient handovers: an interview study. *Scandinavian Journal of Public Health, 40* (5), pp.439–448.

Size, M., Borgstein, E.S., Haisma, H.J. 2005. One–year audit of admissions to the Intensive Care Unit of the Queen Elizabeth Central Hospital, Blantyre. *Malawi Medical Journal*, 17(1), pp.12–14.

Soeken, K.L. Sripusanapan, A. 2003. Assessing publication bias in meta-analysis. *Nursing Research*, 52(1), pp.57-60.

Son, Y. J. 2009. Development and effects of the collaborative transitional care program for continuity of care in patients transferred to general wards from ICUs. *Journal of Korean Clinical Nursing Research*, 15, pp.143-155.

Souza, M.T., Silva, M.D., Carvalho, R., 2010. Integrative review: what is it? How to do it? *Einstein (São Paulo)*, 8(1), pp.102–106. https://doi.org/10.1590/s1679-45082010rw1134

Stedman, T.L., 2012. Stedman's Medical Dictionary for the Health Professions and Nursing – Google Search, 7th ed.

Stelfox, H. T., Perrier, L., Straus, S. E., Ghali, W. A., Zygun, D., Boiteau, P., Zuege, D. J. 2013. Identifying Intensive Care Unit discharge planning tools: protocol for a scoping review. *British Medical Journal open, 3*(4), p. e002653.

St-Louis, L., Brault, D. 2011. A Clinical Nurse Specialist Intervention to Facilitate Safe Transfer from ICU. *Clinical Nurse Specialist*, 25 (6), pp.321-326.

Strahan, E.H., Brown, R.J. (2005). A qualitative study of the experiences of patients following transfer from Intensive care. *Intensive and Critical Care Nursing*, 21(3), pp.160-171.

Streater, C., Golledge, J., Sutherland, J., Easton, J., McNamara, R., MacDonald, R., Looise, A., Gelling, L. 2001. The relocation experiences of relatives leaving a Neurosciences critical care unit: a phenomenological study. *Nursing in Critical Care*. 6(4), pp.163-170.

Thabane. L, Ma, Chu, R., Ismaila, A., Rios, L., Robson, R., Thabane, M., Giangregorio, L., Goldsmith, C. 2010. A tutorial on pilot studies: the what, why and how. *BMC Medical Research Methodology*, 10.1. http://.biomedical.com/1471-2288/10/1. [Accessed 24/03/2022].

Tavakol, M., Sandars, J. 2014. Quantitative and qualitative methods in medical education research: AMEE Guide No 90: Part 1, *Medical Teacher*, 36 (9), pp.746-756.

Tel, H., Tel, H. 2006. The effect of individualized education on the transfer anxiety of patients with myocardial infarction and their families. *Heart and Lung: The Journal of Acute and Critical Care*, 35(2), pp.101-7.

Uhrenfeldt, L., Aagaard, H., Hall, E.O., Fegran, L., Ludvigsen, M.S., Meyer, G. 2013. A qualitative meta-synthesis of patients′ experiences of intra- and inter-hospital transitions. *Journal of Advanced Nursing*, 69(8), pp.1678–1690.

van Sluisveld, N., Hesselink, G., van der Hoeven, J.G., Westert, G., Wollersheim, H.,Zegers, M. 2015. Improving clinical handover between Intensive Care Unit and general ward professionals at Intensive Care Unit discharge. *Intensive Care Medicine*. 41 (4), pp.589–604.

Varela, C., Young, S., Groen, R., Banza, L, Mkandawire, N.C., Viste, A. 2017. Untreated surgical conditions in Malawi: a randomised cross-sectional nationwide household survey. *Malawi Medical Journal*. 29(3) pp.231–6

Walker, J. 2000. Women's experiences of transfer from a midwife-led to a consultant-led maternity unit in the UK during late pregnancy and labour. *Journal of Midwifery &Women's Health,* 45, pp.161–168.

Ward. N.S., Read, R., Afessa, B., Kahn, J.M. 2012. Perceived effects of attending physician workload in academic medical Intensive Care Units: a national survey of training program directors. *Critical Care Medicine*. 40 (2), pp. 400 – 405.

Watts, R., Gardner, H. 2005. Nurses' perceptions of discharge planning. *Nursing & health sciences, 7*(3), pp.175–183.

Watts, R., Gardner, H., Pierson, J. 2005. Factors that enhance or impede critical care nurses' discharge planning practices. *Intensive Critical Care Nursing,* 21(5), pp.302—313.

Watts, R., Pierson, J., Gardner, H. 2006. Critical care nurses' beliefs about the discharge planning process: A questionnaire survey. *International Journal of Nursing Studies.* 43(3), pp. 269-79.

Weber, R.P. 1990. *Basic Content Analysis*. Sage Publications, Newbury Park, CA.

Whitehead, A., Julious, S., Cooper, C., Campbell, M. 2015. Estimating the sample size for a pilot randomised trial to minimise the overall trial sample size for the external pilot and main trial for a continuous outcome variable. *Statistical Methods in Medical Research*, 0(0) 1-17. DOI: 10.1177/0962280215588241. [Accessed 24/3/2022].

Whittaker, W., Ball, C. 2000. Discharge from Intensive Care: a view from the ward. *Intensive and Critical Care Nursing,* 16 (3), pp.135–143.

Whittemore, R., Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing, 52*(5), pp.546-553.

Williams, N., Wilkinson, C., Stott, N., Menkes, D.B., 2008. Functional illness in primary care: dysfunction versus disease. *Family Practice,* 9 (30), pp.1-8.

Williams, T.A., Leslie, G., Finn, J., Brearley, L., Asthifa, M, Hay, B., Laurie, K., Leen, T., O'Brien, K., Stuart, M., Watt, M. 2010. Clinical effectiveness of a critical care nursing outreach service in facilitating discharge from the Intensive Care Unit. *American Journal of Critical Care*, 19, pp.e63–e72.

Wolf, A., Olsson, L., Taft, C., Sweberg, K., Ekman, I., 2012. Impacts of patient characteristics on hospital care experience in 34,000 Swedish patients. *BMC Nursing*, 11(8), pp.1–7. https://doi.org/10.1186/1472-6955-11-8.

Wong, E.L., Leung, M.C., Cheung, A.W., Yam, C.H., Yeoh, E.K., Griffiths, S., 2011. A population-based survey using PPE-15: relationship of care aspects to patient satisfaction in Hong Kong. *International Journal for Quality in Health Care* 23 (4) pp. 390–396.

Young, T., Hopewell, S., Methods for obtaining unpulished data. Cochrane Database of Systematic Reviews 2011, Issue 11. Art. No.: MR000027. DOI:10.1002/14651858. MR 000027.pub2. Accessed 16 December 2021.

Yousefi, H., Karami, A., Moeini, M., Ganji, H., 2012. Effectiveness of nursing interventions based on family needs on family satisfaction in the Neurosurgery Intensive Care Unit. *Journal of Nursing and Midwifery Research*, *17*(4), pp.296–300.

Yun, S.H., Oh, E. G., Yoo, Y.S., Kim, S.S., Jang, Y.S., 2017. Development and Effects of a Transition Nursing Program for Patients and Family Caregivers at a Neurological ICU in Korea. *Clinical Nursing Research*, 26(1), pp.27–46.

Zakerimoghadam, M., Ghyasvandian, S., Asayesh, H., Jodaki, K., 2016. Prevalence of Anxiety in the Process of Transferring Patients from Cardiac Surgery Intensive Care Unit to the General Ward. *Critical Care Nursing Journal*, 9(3), p. e8001.

Zeilani, R., Seymour, J.E., 2010. Muslim women's experiences of suffering in Jordanian Intensive Care Units: a narrative study. *Intensive Critical Care Nursing*, 26(3), pp.175-184.

Zung, W.W.K., 1971. A rating instrument for anxiety disorders. *Psychosomatics*.12 (6): pp. 371-379.

APPENDIX A

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL) RESEARCH APPROVAL

R14/49 Ms Wyness Tengeneza Gondwe

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M160835

NAME: (Principal Investigator)	Ms Wyness Tengeneza Gondwe
DEPARTMENT:	Nursing Education University of Malawi, Blantyre Kamuzu College Queen Elizabeth Central Hospital
PROJECT TITLE:	Development and Pilot Testing of a Clinical Guideline for Transition of Care from Intensive Care Unit to the Ward in Malawi
DATE CONSIDERED:	26/08/2017
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Dr Shelley Schmollgruber
APPROVED BY:	Professor P. Cleaton-Jones,Chairperson, HREC (Medical)
DATE OF APPROVAL:	31/03/2017

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary in Room 10004,10th floor, Senate House/2nd floor, Phillip Tobias Building, Parktown, University of the Witwatersrand. I/We fully understand the the conditions under which I am/we are authorised to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated,from the research protocol as approved, I/we undertake to resubmit to the Committee. **I agree to submit a yearly progress report**. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. in this case, the study was initially review August and will therefore be due in the month of August each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical).

Principal Investigator Signature

Date 6/04/17

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

APPENDIX B

COLLEGE OF MEDICINE RESEARCH AND ETHICS COMMITTEE (COMREC) APPROVAL

CERTIFICATE OF ETHICS APPROVAL

This is to certify that the College of Medicine Research and Ethics Committee (COMREC) has reviewed and approved a study entitled:

P.11/16/2075 – Development and pilot testing of a clinical guideline for transition of care from intensive care unit to the ward in Malawi by Wyness Tengeneza Gondwe

On 31st January 2017

As you proceed with the implementation of your study, we would like you to adhere to international ethical guidelines, national guidelines and all requirements by COMREC as indicated on the next page

Dr. Y. Mlombe- Chairperson (COMREC)

Approved by College of Medicine
31 JAN 2017
(COMREC)
Research and Ethics Committee

31/1/2017
Date

REQUIREMENTS FOR ALL COMREC APPROVED RESEARCH PROTOCOLS

1. Pay the research overhead fees as required by the College of Medicine for all approved studies.

2. You should note that the COMREC Sub-Committee on Research Participants' Safety will monitor the conduct of the approved protocol and any deviation from the approved protocol may result in your study being stopped.

3. You will provide an interim report in the course of the study and an end of study report.

4. You are required to obtain a continuation approval after 12 months from the date of approval.

5 All investigators who are Medical Practitioners must be fully registered with the Medical Council of Malawi.

APPENDIX C1

LETTER OF PERMISSION TO CONDUCT THE STUDY AT QECH FROM HOSPITAL DIRECTOR

Telephone: (265) 01 874 333 / 677 333
Facsimile: (265) 01 876928
Email: queenshosp@globemw.net

All communications should be addressed to:
The Hospital Director

In reply please quote **No.**

QUEEN ELIZABETH CENTRAL HOSPITAL
P.O. BOX 95
BLANTYRE
MALAWI

14th November, 2016

Ref No. QE/10

Kamuzu College of Nursing
P.O.Box 415
Blantyre

Dear Wyness,

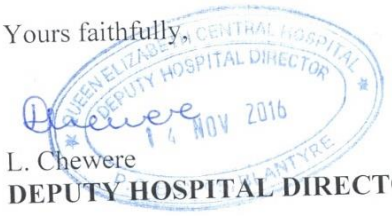
PERMISSION TO CONDUCT A RESEARCH STUDY AT QUEEN ELIZABETH CENTRAL HOSPITAL

This is to inform you that permission has been granted to conduct a research study on **"DEVELOPMENT AND PILOT TESTING OF A CLINICAL GUIDELINE FOR TRANSITION OF CARE FROM INTENSIVE CARE UNIT TO THE WARD IN MALAWI"** at intensive care unit **QECH**.

We will appreciate if a copy of your findings is shared with the hospital.

All the best in your studies.

Yours faithfully,



L. Chewere
DEPUTY HOSPITAL DIRECTOR - NURSING

APPENDIX C2

LETTER OF PERMISSION TO CONDUCT THE STUDY AT QECH FROM HOD-ANAESTHESIA AND INTENSIVE CARE

Telephone: (265) 01 874 333 /8677 333

Facsimile: (265) 01 876928

Email: qech@qech.mw

All communications should be addressed to:

The Hospital Director

In reply please quote No.QE/PAT/4

QUEEN ELIZABETH CENTRAL HOSPITAL

P.O. BOX 95

BLANTYRE

9th November, 2016.

The chairman Comrec

College of medicine

Blantyre.

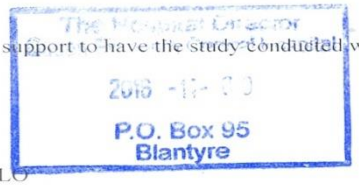
RE: "DEVELOPMENT AND PILOT TESTING OF A CLINICAL GUIDELINE FOR TRANSITION OF CARE FROM INTENSIVE CARE UNIT TO THE WARD IN MALAWI" by Wyness Tengeneza Mulenga Gondwe.

I write to confirm that I have read the proposal titled as above and find it very relevant to the intensive Care unit here at QECH.

I believe the findings of the study will guide nursing practice and improve patients' and families' satisfaction.

I therefore give my full support to have the study conducted within my Department.

Yours Faithfully,



DR. SAMSON MNDOLO

HEAD OF THE DEPARTMENT OF ANAESTHESIA AND INTENSIVE CARE.

APPENDIX D

ENGLISH INFORMATION DOCUMENT FOR PATIENTS AND FAMILIES

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

Dear_____
(name of patient / family)

My name is Wyness Gondwe and I am currently studying for a PhD at the University of the Witwatersrand in the Department of Nursing Education, in South Africa. I am conducting a research project and would like to ask you to consent to participate in the study.

The aim of the study is to develop and pilot test a clinical nursing guideline for transition of care from ICU to the ward environment at QECH to inform nursing practice. Your acceptance to participate in this study will mean that I can interview you to obtain information regarding your experience with the transitional care before, during and after transfer from ICU.

There are no direct benefits to you or (your patient/family) for being included in the study. However, your participation will provide valuable information for future planning of the transitional care from ICU which is important to both the patients and the families. Also note that there will be no harm to you by participating in the study. Participation is voluntary, and even after the study begins you can decide to withdraw from the study at any point. This will have no effects on services that the patient/family may receive.

The purpose of the study is to provide safe and efficient transitional care to patients and families transferred from ICU to the ward. The study will be conducted in three phases: exploratory, development and verification and pilot testing phase. In phase one, semi structured researcher administered individual interviews will be conducted with patients recently transferred from ICU and families, multidisciplinary team including medical clinicians and nurses to solicit their expert opinions and/or experiences with transition of care in order to include them in the clinical guideline to make it effective. In phase two, data obtained from phase 1 will be analysed and presented in narrative form. Integrative review of literature will also be conducted to provide evidence-based practice on transition of care from ICU. A draft clinical guideline will be developed based on results of phase 1 and integrative literature review. The draft guideline will be verified by internal and external stakeholders in order to seek and incorporate their experts' opinion and/or experiences with transition of care from ICU. In phase three, the clinical guideline will be pilot tested and outcomes assessed on patients recently transferred from ICU and their families. Structured individual researcher administered interviews, will be conducted to assess anxiety as primary outcome and satisfaction with care as secondary outcome pre- and post-intervention. Participant data on anxiety levels and degree of satisfaction with care will be presented. Post-intervention, semi structured focus group researcher facilitated interviews with medical clinicians and nurses will be conducted to elicit their experiences or views in the safety and efficiency of the developed clinical guideline on transition of care from ICU**.**

I am therefore inviting you to participate in semi structured researcher administered individual interviews in phase 1 or in phase 3 depending on the need. The information given will not be identified with you in any way and should you wish to access the results of the study, they will be made available to you.

The study and its procedures have been approved by research committee of the University of the Witwatersrand, South Africa, the College of Medicine Research and Ethics Committee in Malawi, the Hospital Director of Queen Elizabeth Central Hospital, unit managers of ICU and surgical wards.

Thank you for taking time to read this information document. Should you experience psychological stress at any time in the course of participating in the study, the researcher being an experienced nurse for 24 years, will be able to assist you. Should there be need for further help, you will be referred to a social worker whom you may also contact at any time as follows: Mrs Kumwenda, QECH, Ward 2A, Tel 0111628396/0995768768/0885010060

Should you have any further questions about the study, please do not hesitate to contact the investigator by email on wynessgondwe@kcn.unima.mw or call 0888738294 or write the chairman, College of Medicine Research and Ethics Committtee (COMREC), College of Medicine, P/Bag 360, Chichiri, Blantyre 3, Malawi or telephone 01 877 245.

APPENDIX E

CHICHEWA INFORMATION DOCUMENT FOR PATIENTS AND FAMILIES

KUKHAZIKITSA NDI KUYESA NDONDOMEKO YA KUSINTHA KWA CHISAMALIRO CHOMWE CHIMAPEREKEDWA POCHOKA MU CHIPINDA CHA ANTHU ODWALIKA KWAMBIRI KUFIKILA MU WODI KU MALAWI

Wokondeka _____
(dzina la wodwala / wa chibale yemwe akudwazika wodwala)

Dzina langa ndine Wyness Gondwe ndipo ndikuphunzira udokotala ku sukulu ya ukachenjede ya Witwatersrand mu nthambi yophunzitsa anamwino, ku South Africa. Ndikuyembekezeka kupanga kafukufuku choncho ndikufuna kuti ndikupempheni kuti mulowe nawo mu kafukufuku ameneyu. Cholinga cha kafukufuku ameneyu ndi kukhazikitsa ndinso kuyesa ndondomeko ya chisamaliro chomwe chimaperekedwa kwa odwala ndi achibale pamene achoka mu ICU ndi kufika ku wodi ku chipatatala cha gulupu (QECH) ndicholinga chofuna kuthandizila anamwino pa ntchito yawo.

Kulola kutenga nawo mbali mu kafukufuku ameneyu, kukutanthauza kuti ndikhoza kukufunsani mafunso kuti ndipeze mfundo zokhuzana ndi momwe inuyo mwachionera chisamaliro chomwe munalandira pamene munali mu ICU, potuluka mu ICU komanso mutafika ku wodi. Palibe malipiro ena alionse kwa inuyo (wodwala/ wa chibale yemwe akudwazika wodwala) potenga nawo mbali pa kafukufuku amenenyu. Koma kutenga nawo mbali kudzapangisa kuti mutipatse maganizo omwe mtsogolo muno azatithandizire popanga ndondomeko ya za chisamaliro chomwe chidzidzaperekedwa mu ICU, potuluka mu ICU komanso mu wodi chimene chili chinthu chofunikira kwa wodwala ndi achibale awo.

Sitikuyembekeza kuti padzakhala zovuta za mtundu wina uliwonse potenga nawo mbali mu kafukufuku ameneyu. Kutenga nawo mbali mukafukufuku ndi zosakakamiza komanso dziwani kuti mutha kutuluka mukafukufukuyu popanda choletsa china chilli chonse komanso popanda mulandu nthawi ina iliyonse yomwe mwaganiza kutelo ngakhale atati wayamba kale kafukufukuyu. Kutuluka mu kafukufukuyu sikudzasokoneza chisamaliro chomwe wodwala kapena achibale adzalandire.

Chifukwa chenicheni chakafukufuku ameneyu ndikufuna kukonza kaprekedwe ka chisamaliro chokwanira, chabwino ndi choyenerera kwa odwala ndi achibale nthawi imene akuchoka mu ICU kupita ku wodi.
Kafukufuku ameneyu adzachitika mumagawo atatu: gawo loyamba lofufuza, gawo lachiwiri lokhazikitsa ndi kutsimikiza ndi gawo lachitatu loyesa. Mu gawo loyamba, ofufuza adzatsogolera kufunsa mafunso aliyense payekha payekha odwala omwe angotulutsidwa mu chipinda cha anthu odwalika kwambiri ndi achibale awo, ndi gulu la a za chipatala monga madotolo ndi anamwino ndi cholinga choti tipeze maganizo ndi zomwe amakumana nazo pa chisamaliro chomwe chimaperekedwa pofuna kuika maganizo awowo mu ndondomeko ya kusintha kwa chisamaliro chimenechi kuti chikhale chopambana.
Mu gawo lachiwiri, mfundo zochokera mu gawo loyamba zizaunikidwa ndikulongosoledwa. Kaundula wa mmabukhu adzachitika pofuna kupeza umboni weniweni pa ndondomeko ya kusintha kwa chisamaliro chomwe chimaperekedwa pochoka mu chipinda cha anthu odwalika kwambiri. Ndondomeko ya kusintha kwa chisamalirochi idzalembedwa pogwiritsa ntchito zotsatira za zofufuza za mu gawo loyamba ndi za mukaundula wa mmabukhu. Ndondomeko ya kusintha kwa chisamaliroku kudzaonedwanso ndi anamandwa amudziko muno amene zimenezi zimawakhuza pofuna kumva ndi kuika maganizo awo ndi/kapena zomwe amakumana nazo mu ndondomeko ya kusintha kwa chisamaliro kuchokera ku chipinda cha anthu odwalika kwambiri. Mu gawo la chitatu, ndondomeko imeneyi idzayetsedwa kwa odwala omwe atulutsidwa mu ICU ndi achibale awo ndipo zotsatira zake zidzaunikidwa. Ofufuza adzatsogolera kufunsa mafunso aliyense payekha payekha

pomwe poyamba adzaunika nkhawa ndipo kachiwiri adzaunikanso za kukhutitsidwa kwawo ndi chisamaliro asanalandire komanso atalandira ndondomeko ya chisamalirochi. Zotsatira za mlingo wa nkhawa ndi kukhutitsidwa kwawo ndi chisamalirocho zidzalongosoledwa. Pambuyo pake, ofufuza adzatsogolera zokambirana za gulu la madotolo ndi anamwino pofuna kumva zomwe amakumana nazo kapena maganizo awo pa za katetezedwe ndi kufunikira kwa ndondomeko ya kusintha kwa chisamaliro ku chipinda cha anthu odwalika kwambiri mu ICU**.**

Choncho ndili kukupemphani kuti mutenge nawo mbali poyankha panokhanokha mafunso potsogoredwa ndi ofufuza mugawo loyamba kapena gawo la chitatu ngati kungakhale koyenera kutero.
Mfundo zoperekedwazo zizakhala za chinsisi choncho zidzakhala zovuta kuzindikila zonse zomwe mwapereka koma ngati mudzafune kuona zotsatira za kafukufuku ameneyu mudzatha kutelo.
Kafukufukuyu ndi tsatanetsatane wake yense anabvomerezedwa kale ndi makomiti oyang'ana za kafukufuku ku sukulu ya ukachenjede ya Witwatersrand ku South Africa ndi ku kolegi ya madotolo ku Malawi (College of Medicine), mkulu wa chipatala cha Gulupu, akuluakulu a ku ICU ndi ma wodi a anthu obvulala kapena omwe apanga ngozi.
Zikomo kwambiri chifukwa cha nthawi yanu powerenga zonse za mchikalata chimenechi. Ngati mungapezeke kuti mwina maganizo akusokonekera panthawi ina iliyonse pamene mwakutenga nawo mbali mu kafukufukuyu, ofufuza pokhala kuti ndi kadaulo pa unamwino kwazaka makumi awiri ndi mphambu zinai, adzatha kukuthandizani. Koma ngati padzafunikire chisamaliro choonjezera, mudzatumizidwa kwa a sosho weka omwe mutha kuwapeza nthawi ina yili yonse motere: Mrs Kumwenda, QECH, Ward 2A, Tel 0111628396/ 09957687 68/0885010060.
Ngati mungakhale ndi mafunso okhuza kafukufukuyu mutha kulembera wofufuza pa emelo adiress ya wynessgondwe@kcn.unima.mw kapena kuimba telefoni pa 0 888 738 294; kapena kulembera kalata wapa mpando, College of Medicine Research and Ethics Committtee (COMREC), College of Medicine, P/Bag 360, Chichiri, Blantyre 3, Malawi kapena kuwaimbira telefoni pa 01 877 245.

APPENDIX F

CONSENT FORM

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

.

I_____,
(please print name of the participant)

agree to take part in the study. I have read with understanding the content of the information document and I have been given the opportunity to ask questions I might have regarding the procedure and I give my consent to be included in this study.

Date_____Signature_____

_____(Witness)

APPENDIX G

CHICHEWA CONSENT FORM

KUKHAZIKITSA NDI KUYESA NDONDOMEKO YA KUSINTHA KWA CHISAMALIRO CHOMWE CHIMAPEREKEDWA POCHOKA MU CHIPINDA CHA ANTHU ODWALIKA KWAMBIRI KUFIKILA MU WODI KU MALAWI

Ine_____,
(chonde lembani dzina la wotenga nawo mbali)

ndavomela kutenga nawo mbali mu kafukufukuyu. Ndawerenga ndikumvetsetsa mfundo zomwe zili mchikalatachi ndipo ndapatsidwa mwawi wofunsa mafunso omwe ndinali nawo okhuza ndondomeko ndipo ndikupereka chilolezo kuti nditha kulowa nawo mukafukufuku ameneyu.

Tsiku_____osainira_____

_____(Wochitira umboni)

APPENDIX H

AUDIO-TAPING CONSENT FORM

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

I_____,

(please print name of participant)

agree to be audio-taped in the study. I have read with understanding the content of the information document and I have been given the opportunity to ask questions I might have regarding the procedure and I give my consent to be audio-taped in this study.

Date _____Signature_____

_____(Witness)

APPENDIX I

CHICHEWA AUDIO-TAPING CONSENT FORM

KUKHAZIKITSA NDI KUYESA NDONDOMEKO YA KUSINTHA KWA CHISAMALIRO CHOMWE CHIMAPEREKEDWA POCHOKA MU CHIPINDA CHA ANTHU ODWALIKA KWAMBIRI KUFIKILA MU WODI KU MALAWI

Ine_____, (chonde lembani dzina la wotenga nawo mbali)

ndavomela kuti mutha kundijambula mau pamene mukupanga kafukufukuyu. Ndawerenga ndikumvetsetsa mfundo zomwe zili mchikalatachi ndipo ndapatsidwa mwawi wofunsa mafunso omwe ndinali nawo okhuza ndondomeko ndipo ndikupereka chilolezo kuti mutha kundijambula mau pamene mukupanga kafukufuku.

Tsiku_____ osainira_____

_____(Wochitira umboni)

APPENDIX J

ENGLISH BIOGRAPHICAL QUESTIONAIRE FOR PATIENTS AND FAMILIES

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

Instruction: **Complete the following interviewee information**

Name of ward	Interviewee No.

Whether participant is a patient or a family member

Patient/family relationship

Gender for participant

Age of participant in years

Marital status of participant

Education level of participant

Occupation of participant

Length of stay in ICU

Length of stay in ward

Whether or not participant had previous experience with transition from ICU

APPENDIX K

CHICHEWA BIOGRAPHICAL QUESTIONAIRE FOR PATIENTS AND FAMILIES

KUKHAZIKITSA NDI KUYESA NDONDOMEKO YA KUSINTHA KWA CHISAMALIRO CHOMWE CHIMAPEREKEDWA POCHOKA MU CHIPINDA CHA ANTHU ODWALIKA KWAMBIRI KUFIKILA MU WODI KU MALAWI

Zoyenera kutsatira: Lembani yankho lanu pa zomumuyenereza wonfunsidwa

Dzina la wodi	Nambala ya wofunsidwa

Ngati wofunsidwa ali wodwalayo kapena wa chibale yemwe akudwazika wodwala

Ubale wotani pakati pa wodwala ndi wa chibale yemwe akudwazika wodwala

Jenda ya wofunsidwa mafunso

Zaka zanu zakubadwa

Ngati ndinu wokwatira/wa

Mlingo wa maphunziro

Ntchito yomwe mumagwira

Nthawi yomwe mwakhala muli mu ICU

Nthawi yomwe mwakhala ali mu wodi

Munayamba mwakhalaponso mu ICU ndikutululutsidwa kupita ku wodi nthawi ya mmbuyomu

APPENDIX L

ENGLISH SEMI-STRUCTURED INTERVIEW GUIDE FOR PATIENTS AND FAMILIES

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

Opening Question:

"Based on this hospital stay, can you please describe to me your ICU transitional care experience before, during and after ICU transfer and your feelings about it?''

Probes

- What were your experiences with the transitional care before, during and after you transferred from ICU to the ward?
- What were your feelings towards ICU transitional care (before, during and after)?
- What facilitated your ICU transitional care experiences (before, during and after)?
- What hindered your ICU transitional care experiences (before, during and after)?
- What should be improved to facilitate ICU transitional care (before, during and after)?
- Clarifying questions such as "what do you mean," "when," "why," who, by who and "can you tell me more about that" will be asked when necessary to encourage interviewees to narrate their experiences.
- Reflection will be used to enhance reliability of data by asking, 'do I understand you correctly'.
- Encouragement will also be sought by use of non-verbal techniques, such as head nods and eye contact, with minimal use of verbal responses, such as 'yes' and 'uh-huh,' paraphrasing a statement or repetition by a synonym.

APPENDIX M

CHICHEWA SEMI STRUCTURED INTERVIEW GUIDE FOR PATIENTS AND FAMILIES

KUKHAZIKITSA NDI KUYESA NDONDOMEKO YA KUSINTHA KWA CHISAMALIRO CHOMWE CHIMAPEREKEDWA POCHOKA MU CHIPINDA CHA ANTHU ODWALIKA KWAMBIRI KUFIKILA MU WODI KU MALAWI

Funso lotsogolera:

"Malinga ndimomwe mwakhalira muchipatala nthawi iyi, mungandifotokozereko momwe mwaonera za chisamaliro chomwe munalandira pamene manali mu ICU, potuluka mu ICU komanso mutafika ku wodi, ndiponso nenani maganizo anu ndi momwe mukumvera za chisamaliro chimenechi?''

Fufuzani za izi:

- Kodi chisamaliro chanu chinali chotani kuyambira mu ICU, potuluka mu ICU komanso mutafika ku wodi?
- Kodi mwamva bwanji mumtima mwanu za chisamaliro chimene mwalandira (mu ICU, potuluka mu ICU komanso mutafika ku wodi?
- Kodi chimene chinathangatira chisamaliro chimenechi chinali chiani (mu ICU, potuluka mu ICU komanso mutafika ku wodi?
- Kodi chimene chinapangisa kuti chisamaliro chimenechi chisayende bwino ndi chiani (mu ICU, potuluka mu ICU komanso mutafika ku wodi?
- Kodi chimene mukuona kuti chiyenera kusintha kuti chisamaliro chimenechi chiyende bwino ndi chiani (mu ICU, potuluka mu ICU komanso mutafika ku wodi?
- Mafunso ofuna kumvetsetsa monga ngati "kodi mukutanthauza chani", "ndi nthawi yanji", "ndi chifukwa chiani", "ndani", "ndindani" ndiponso "mungandiuzeko zambiri pa zimenezi" adzafunsidwa pamene pali poyenera ndi cholinga cholimbikitsa wofunsidwa kuti afotokoze bwino zomwe anaziona.
- Pofuna kutsimikiza ngati 243ones243 zomwe zaperekedwa ndizolondola, funso lidzafunsidwa loti "kaya ndikukumvani bwinobwino?"
- Chilimbikitso poyankha mafunso chidzaperekedwa pogwedeza mutu ndinso kuyang'anana maso ndi maso, ndi kugwiritsa mau monga 'eya' kapena 'uh-huh,' komanso kufunsanso funsolo mwanjira ina kapena kubwereza funsolo ndi mau ofananira.

APPENDIX N

INFORMATION DOCUMENT FOR MEDICAL CLINICIANS AND NURSES

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

Dear Sir/madam,
My name is Wyness Gondwe, I am currently studying for a PhD at the University of the Witwatersrand, South Africa. I intend to develop and pilot test a clinical nursing guideline for transition of care from ICU to the ward environment at QECH to inform nursing practice. May I ask you to volunteer and participate in this study? As a health care professional practicing in ICU or surgical ward, your expert/experiential views regarding ICU transitional care will be very important.

The purpose of the study is to provide safe and efficient transitional care to patients and families transferred from ICU to the ward. The study will be conducted in three phases: exploratory, development and verification and pilot testing phase. In phase one, semi structured researcher administered individual interviews will be conducted with patients recently transferred from ICU and families, multidisciplinary team including medical clinicians and nurses to solicit their expert opinions and/or experiences with transition of care in order to include them in the clinical guideline to make it effective. In phase two, data obtained from phase 1 will be analysed and presented in narrative form. Integrative review of literature will also be conducted to provide evidence-based practice on transition of care from ICU. A draft clinical guideline will be developed based on results of phase 1 and integrative literature review. The draft guideline will be verified by inernal and external stakeholders in order to seek and incorporate their experts' opinion and/or experiences with transition of care from ICU. In phase three, the clinical guideline will be pilot tested and outcomes assessed on patients recently transferred from ICU and their families. Structured individual researcher administered interviews, will be conducted to assess anxiety as primary outcome and satisfaction with care as secondary outcome pre- and post-intervention. Participant data on anxiety levels and degree of satisfaction with care will be presented. Post-intervention, semi structured focus group researcher facilitated interviews with medical clinicians and nurses will be conducted to elicit their experiences or views in the safety and efficiency of the developed clinical guideline on transition of care from ICU**.**

Should you agree to participate, I will ask you to allow me to interview you individually during phase 1 of the study at a venue of your choice in order to maintain privacy, convenience and comfort to you.

I will schedule an appointment at a date and time convenient to you. The interview will take approximately 1 hour. With your permission, I will audio-tape the interview for verbatim transcription and analysis later.

Participation is entirely voluntary and you may choose not to participate or withdraw from the study at any time. Anonymity and confidentiality is guaranteed. I will keep the transcribed audio-tape recordings separately from the transcripts and destroy them once the study is completed. No names or any other identifying information regarding you will be noted on the transcribed data. All transcriptions will be kept under lock and key and only my supervisor and I will have access to the data. If you so wish, I will be happy to supply you with a copy of the transcription of the interview. Information in the report will be written in general terms and no personal information about you will be given.

You will gain no direct benefits from participating in the study. Also note that there will be no harm to you by participating in the study. Participation is voluntary, and even after the study begins you can decide to withdraw from the study at any point. However, I hope that the results from the study will assist nurses working in the intensive care unit and the wards to understand transition of care and be able to assist patients and families cope as they get transferred from ICU to the ward.

The study and its procedures have been approved by research committee of the University of the Witwatersrand in South Africa, the College of Medicine Research and Ethics Committee in Malawi, the Hospital Director of Queen Elizabeth Central Hospital, unit managers of ICU and surgical wards.

Thank you for taking the time to read this information letter. If you wish to participate in the study please complete the attached biographical questionnaire. Should you have any further questions about the study, please do not hesitate to contact the investigator by email on wynessgondwe@kcn.unima.mw or call 0888738294 or write the chairman, College of Medicine Research and Ethics Committee (COMREC), College of Medicine, P/Bag 360, Chichiri, Blantyre 3, Malawi or telephone 01 877 245.

APPENDIX O

ENGLISH BIOGRAPHICAL QUESTIONNAIRE FOR MEDICAL CLINICIANS AND NURSES

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

Interviewee No:

Instructions:
If you wish to participate in the study, please complete the following biographical questionnaire and return it to me.
Thank you for taking the time to complete this biographical questionnaire

WYNESS GONDWE

What is your age in years?

Please list your professional qualifications

State the name of the unit/ward you are working in

State whether you are an ICU nurse or ward nurse or clinician by ticking

ICU nurse	ICU clinician	Ward clinician	ward nurse

State the year you qualified as an intensive care professional if applicable.

If you are not intensive care trained, state how did you acquire the skill of providing ICU transitional care?

State your work experience in the unit/ward in years

Indicate your position in the unit/ward

Please state your contact telephone number.

APPENDIX P

SEMI STRUCTURED INTERVIEW GUIDE FOR MEDICAL CLINICIANS AND NURSES

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

Opening Question:

"Based on your experience and/or expertise, can you describe to me how ICU transitional care process is conducted and your feelings about it before during and after ICU transfer?''

Probes

- What are your views/opinions towards patients' transitional care experiences before, during and after transfer from ICU to the ward?
- How do patients and families feel towards their experience with ICU transitional care (before, during and after)?
- What transitional care do you currently provide to patients and families (before, during and after)?
- What are the barriers or challenges to ICU transitional care for patients and families currently (before, during and after)?
- What strategies currently facilitate ICU transitional care for patients and families (before, during and after)?
- What should be improved to facilitate ICU transitional care for patients and families (before, during and after)?
- Clarifying questions such as "what do you mean," "when," "why," who, by who and "can you tell me more about that" will be asked when necessary to encourage interviewees to narrate their experiences.
- Reflection will be used to enhance reliability of data by asking, 'do I understand you correctly'.
- Encouragement will also be sought by use of non-verbal techniques, such as head nods and eye contact, with minimal use of verbal responses, such as 'yes' and 'uh-huh,' paraphrasing a statement or repetition by a synonym.

APPENDIX Q

TRANSCRIBED INTERVIEW-ICU NURSE

Interviewee No. 10 27 March 2017

Introduction

This participant (P) is a Nurse Midwife Technician, with four years' experience of providing care to critically ill patients and their families in ICU. She had on the job critical care training.

I: …basically, it's one broad question, but if I find out that maybe there are some points which I need to check with you I will probe more. So, my question is, based on your experience, you said four years?

P: Yes, four years

I: Ok, based on that experience can you describe to me how ICU transitional care process is currently conducted?

P: …when the patient has been assessed to be better and that he or she can be transferred from ICU we contact the guardians, we let them know the progress of the patient, ah, we tell them the patient is going to be transferred any day maybe tomorrow or the other day if progress is still of stability, …When the day comes that the patient has been assessed and can be transferred we tell the guardians 'your patient has been transferred …but expect some changes, because there (in the ward), you will be on bedside with the patient …fully participating in the care because the nurses are few nurses and a lot of patients …

I: Ok, so that is before and during. Earlier you indicated that you try, you start explaining to them when you see that they have maybe improved?

P: Yes

I: So that's the starting point?

P: That is the starting point

I: Ok, what about when they are in the ward, do you do anything to help them cope there after they have left ICU?

P: When they have left ICU, we don't follow them up unless otherwise like maybe the patient has started to deteriorate then our anaesthetist is called, he goes there to reassess the patient if the patient needs to come back to ICU then the patient is brought back but for nurses mostly no.

I: Ah, ok, and the anaesthetists just go there when they are informed?

P: Yah, when they have been informed by the ward staff.

I: Otherwise it's not routine?

P: No, it's not, sure.

I: Ok, fine. Are there any plans to follow the patients or maybe you just don't do it, what happens?

P: Last year in October or November we conducted a meeting and discussed that the patients especially those on tracheostomy care should be followed up by ICU nurses but it was not practiced because of shortage of nurses and time to do it.

I: Ok, so you are doing that, you are following up those on tracheostomy care as nurses?

P: No, currently no, we are not doing it, yah.

I: Ok, because of the time

P: Yah, but we planned to do it, but actually we did not start.

I: Ok, so the plan was especially for those on tracheostomy?

P: Yes, because most of them, most of them die when they go to the wards, sure.

I: Ah, ok I see, thank you so much. So, when you provide this care to patients to prepare them for transfer before, during and after, what are the challenges or what are the barriers that you meet in the course of doing that work? Are there any challenges, apart from the time and the shortage which you mentioned?

P: Ah, I would say the main barriers are time and shortage but there are no other except time and shortage, sure.

I: So, when you say time, exactly what is it?

P: It's like, like…today we are supposed to be four staff nurses but we are two, ah, the others are on orientation, the others are students. So, if I get out of here, to go to the ward to follow up that patient that means the patients that are still here in ICU are going to suffer. So, I can't really manage to do those things at once.

I: Now you have said you (ICU) had plans to follow patients in the wards but you are failing to do that because of time and shortage, what other strategies or what mechanisms have you tried to put in place so that maybe one day your plans should work because they were beautiful plans but time and shortage are limiting you…?

P: Speaking rightly, we have not taken any step to try to do a strategy to try to achieve the goal seriously.

I: And if you were given a chance to ensure that follow up should really take place, what are your suggestions on what should happen to improve the current practice?

P: Of follow up?

I: Yah, of follow up, shortage and all other challenges, what should happen, any suggestion?

P: Yah, more nurses should be allocated to ICU and ah, let's say we are mostly four nurses on day duty, I would suggest if there could be like five nurses or six nurses so that four nurses should be in ICU, two or one should go to the ward to assist the patients, to do the follow up, yah, that's my suggestion.

I: How does follow up help the patients in the wards? How is it important?

P: the patient will feel that he is valuable and that we (ICU nurses) still want him or her to get well. That is going to, psychologically help the patient and even the guardians to feel secure... And also, if we go there as ICU nurses, we can see that something is going wrong in the wards, so we can help the guardians or the nurses in the wards in caring for patients. …

I: Ok, so what am getting is that the shortage mainly is here in ICU but you have also said in the wards?

P: In the wards too, in the wards too.

I: Any suggestion on how to help the wards as well, because in the end these patients are their patients also?

P: Yah, as for the nurses in the wards, I would suggest if they would be also oriented to ICU care because I think somehow, they are not very competent in taking care of them. … it's like a lot is not done in the wards than ICU does. So maybe the ward nurses are not well oriented to how to take care of the, ah, ICU transferred patients.

I: Ok, I see, so that's one suggestion, no, maybe two.

P: Yah

I: Follow up, increase the number of nurses here in ICU and also train the people in the wards….

P: Yes

I: Any other suggestions in an effort to improve the situation?

P: Even the ward nurses also, there are shortages, so if also the number of nurses there could be increased it would also help… it means that there could be two or one nurse allocated in the HDU specially on that day to take care of the ICU patients and the other nurses would be allocated in the main ward.

I: Ok, so currently it's not like that?

P: I think it's not like that because of this shortage they are just like maybe this nurse who has been allocated to look after the HDU patients is also helping the patients in the main ward. So, it's like workload, yah, there is too much workload.

I: Ok, more suggestions you can think of to improve the situation?

P: Currently, I think also maybe if the nurses would be specially trained in ICU care that would also increase (improve) patient care, yah, because we just do it based on the job training but formal training, because knowledge is power, yes, knowledge is power, sure.

I: So which nurses now, the ones in ICU or those in the wards?

P: The HDU and ICU nurses.

I: Ok, so both need to be trained …

P: Yes, yes

I: Ok, now if those in the wards are trained in ICU so the ward would turn to be ICU or how would that help?

P: It will help for those patients that have been transferred from ICU when they go to the ward, this nurse because she was trained, she will know how to handle this patient, sure.

I: Ok, thank you so much, anything more

P: Ah, nothing

I: Aliright, but in case you think of something else please feel free to contact me because I want to make this guideline to be as rich as possible with your (ICU)experience.

P: Yes

I: Now with all this information that you have told me on how the current practice is, the challenges, what you would want to be done, what do you think the patients and families feel about the whole experience of transitional care from ICU before, during and after…?

P: I think especiallycare after ICU …I think we are failing the guardians and patients really, I think they feel neglected because when they are out of ICU we just leave them there. So, they tend to compare the ward care and the ICU care because I think we (ICU nurses) try …

I: Ok, now, on your personal point of view, yourself, of course you have already said you feel that you try very much, any other feelings, how you feel about the whole thing yourself?

P: Ah, honestly, I regret to see a patient whom I have taken care of … little by little the patient improved, …has been transfer, communicating, talking or trying to talk. When that patient goes to the ward and I hear that the patient has died, surely, I regret. Mostly I regret that, ah, had we not transfer that patient to the ward, maybe if we had at least given him or her much time to still stay in ICU maybe, the patient would have been alive, yah. I feel like I have failed.

I: Ok, so your feeling is like you do transfer patients early is it that what I am getting or?

P: Ah, I feel like the patient should not go to the ward, I think the patient should be assisted in ICU, be transferred from ICU going back home which is not possible, but I just feel like, that patient should have not died, yah.

I: So, in that case, where do you see is the problem then because this patient or patients after being nursed in ICU, they have to be transferred to the ward environment or to HDU? So, if they die in the ward and then you feel you have neglected them, that's why I am asking, is it that you transfer them early before they get better or where is the problem?

P: Ah, the problem is the ward care I think, it's not all that adequate, it's not all that effective …

I: Ok, thank you so much for the clarification. And, those are the questions which I prepared for this interview but you maybe in the course of our discussion you have thought of something which you feel you should share with me, please do so. Anything that you want me to know?

P: No, that's all

I: Ok, please as we part and when you think of something else, tell me, I will have to hear more from you. But thank you so much for accepting to be interviewed in this very busy environment and I take it not for granted.

P: You are welcome.

APPENDIX R

FULL-TEXT STUDIES EXCLUDED WITH REASONS ORDERED BY AUTHOR (n=26)

Author and year	Design/Main Findings	Reason for exclusion
Participants were former patients and/or families, not congruent with the criteria for the present study (n=9).		
1. Chaboyer, Kendall, *et al*. (2005)	Descriptive qualitative case study design. The findings highlight the complex and highly emotional nature of the experience. Four themes emerged and included: (1) a sense of sudden abandonment, (2) pervasive feelings of vulnerability and helplessness, (3) feelings of unimportance and (4) an ambivalence about the experience (or the presence of both positive and negative emotions.	Participants were interviewed at one month after ICU discharge.
2.Bench, Day and Griffiths (2012)	user-centered critical care discharge information pack (UCCDIP) acknowledges the patients' need to understand what they have been through and the progress they have made. It provides for the different information needs of patients and relatives, recognizing their physical and psychological vulnerability. Through its use of reflection and participation, UCCDIP has the potential to optimize support of adult patients and their families during early critical illness rehabilitation.	Involved former patients and relatives of up to three years post ICU.
3.Bench, Day, and Griffiths (2011)	Qualitative focus group study. Three key themes were identified from the data: (1) considerations related to effective discharge information, (2) goals of critical care discharge information, and (3) resource	Participants were ICU patients beyond 12 months. Included discharges from HDU to the ward
4.Bench *et al*. (2015)	Prospective assessor-blinded pilot cluster randomized controlled trial (RCT; in conjunction with a questionnaire survey of trial participants' experience) There were no statistically significant differences	Included data collected from patients and families at hospital discharge or 28 days, whichever was sooner.

	in the primary outcome. The a priori enrolment goal was not reached and attrition was high.	
5.Forsberg, Lindgren and Engström (2011)	An inductive, descriptive qualitative study. The findings showed the importance of being prepared for the transfer and knowing what was going to happen. -Some participants felt secure in the ICU and excluded on the ward, others appreciated leaving the stressful environment in the ICU for a more peaceful ward. -Feelings of anxiety and exposure were experienced during the transfer and it was helpful if staff involved were known to the participants	Encompassed former patients discharged from ICU to a ward during the last year.
6.Häggström , Asplund and Kristiansen (2014)	The study had a mixed method design. A majority perceived the transfer process as important, but analysis also showed that the participants rated it as an area for improvements. The relatives wanted participation, personal insight and control, respectful encounters, proximity, reassurance, continuous quality, reconnection and feedback. The relatives' participation in the transfer process was perceived as inadequate by 61 per cent, and the support that was received after the ICU discharge was perceived as inadequate by 53 per cent. The patients' length of stay in the ICU affected the relatives' perceptions of the quality of care. Overall, the relatives seemed to desire that the transfer process includes a continuous care, a competent staff, available information throughout the transfer process and personal involvement in the care, both before and after the transfer from the ICU.	Follow-up was beyond the general wards and continued up to 12 months after ICU discharge.
7.Pattison *et al*. (2007)	A prospective, longitudinal and exploratory study. Patient Expert Advisory Groups were invited to participate in research design. Patients were visited in the ward at days 1 and 5 after discharge, invited to nurse-led follow-up clinic and interviewed at three and six months. Short questionnaires were administered at six and 12 months.	Participation times were 6 and 12 months after ICU discharge.
8. Ramsay *et al*. (2014).	Qualitative focus group study	Participants were survivors of prolonged critical illness

	Psychosocial distress was a prominent feature of their accounts, prompting secondary data analysis using Meleis *et al*.'s mid-range theory on experiencing transitions. Participants described a sense of disconnection in relation to profound debilitation and dependency and were often distressed by a perceived lack of understanding, indifference or insensitivity among ward staff to their basic care needs. Negotiating the transition between dependence and independence was identified as a significant source of distress following ward transfer. Participants varied in the extent to which they were able to express their needs and negotiate recovery within professionally mediated boundaries.	at up to six months following hospital discharge.
9.van Mol, Nijkamp, Markham and Ista (2017)	Qualitative descriptive study Four former ICU patients and two relatives underlined the importance of the need for effective discharge information and supportive written material. They also reported a lack of knowledge regarding the consequences of ICU admission. ICU and general ward nurses identified benefits and barriers regarding discharge procedures using three vignettes framed by literature. Some discrepancies were found. For example, ICU nurses were skeptical about the impact of writing a lay summary despite extensive evidence of the known benefits for the patients. ICU nurses anticipated having insufficient skills, not knowing the patient well enough, and fearing legal consequences of their writings.	Participants included former ICU patients One key informant was a social worker who might have different experiences from other stakeholders
Participants were from various settings with variations of experiences and backgrounds including paediatric and other unspecified settings (n=5).		
1.Bunn (2007)	A qualitative descriptive methodology: Five themes emerged– Patients as intensive care staff say they are; time to prepare the biggest thing; documentation as a continuation of patient care; they forget what it's like; and families, a need to know about them. Conclusion: Communication is the paramount factor that impacts on a 'smooth transition for ward nurses.	Setting included Paediatric ward.
2.Häggström, Asplund and Kristiansen (2012)	Qualitative: grounded theory The substantive theory shows the process of nursing care activities from the contexts of the ICU and the general ward. The main concern was to achieve a coordinated, strengthening, person-cantered standard of care to facilitate patient transitions. The core category ''being perceptive and adjustable'' was a strategy to individualize, which was related to the other categories: ''preparing for a change'' and ''promoting the recovery.''	Participants were from varying settings, backgrounds including five general wards specialising in surgical, medical or unspecified general fields.

	However, the nurses were forced to ‘‘balance between patient needs and the caregivers’ resources’’ and consequently were compromising their care.	
3. Häggström, Asplund and Kristiansen (2009)	Qualitative: grounded theory using individual and focus groups interviews and observations The main concern was the nurses’ ‘‘struggling with a gap.’’ -The ‘‘gap’’ was caused by differences in the altered level of care and contributed to difficulties for nurses encountering an overlap during the transitional care. -The nurses sought improved collaboration, and employed patient-centered routines. -They wanted access to necessary tools; they relayed or questioned their own competence and sought assurance of the patients’ ability to be transferred. -If the nurses felt a loss of control, lack of intertwining and lack of collaboration, they sheltered their patients and themselves.	Different groups of nurses involved in ICU transitional care were recruited in three ICUs and five general wards including medical wards and other unspecified wards.
4.Häggström and Bäckström (2014)	Interviews of 15 participants were conducted, audio-taped, transcribed verbatim, and analyzed using qualitative content analysis. The results showed that the categories *secure*, *encourage*, and *collaborate* are strategies used in the three phases of the ICU transitional care process. The main category; a safe, interactive rehabilitation process, illustrated how all strategies were characterized by an intention to create and maintain safety during the process. A three-way interaction was described: between staff and patient/families, between team members and involved units, and between patient/family and environment	Setting included five general wards specializing in surgical, medical, or unspecified general fields care.
5. Lin *et al*. (2013)	This ethnographic study. Activity theory was the theoretical framework that underpinned this study. Three patient activity systems were identified: intensive care patient discharge activity, acute care unit accepting patient activity, and hospital bed management activity.	The participants included patients who were discharged home directly from ICU.

	Analysis of the interactions among these activity systems revealed conflicting objects (goals), communication breakdowns, and teamwork issues.	
Key informants included those working on part time basis, casually employed or not directly involved in bedside care (n=5).		
1.Cognet and Coyer (2014)	A qualitative grounded theory design Results yielded a core category of 'two worlds' stressing the disconnectedness between ICU and the ward setting. This category was divided into sub categories of 'communication dis-connect' and 'remember the family'. Properties of 'what we say', 'what we write', 'transfer' and 'information needs' respectively were developed. The discharge process for patients within the ICU setting is complicated and largely underappreciated. There are fundamental, misunderstood differences in prioritisation and care of patients between the areas, with a deep understanding of practice requirements of ward-based RNs not being understood.	Participants included RNs working full time, part time or casually in the study setting.
2.Li *et al*. (2015)	Survey Administrator and provider respondents reported that ICU physicians are primarily responsible for determining the timing (70% and 77%, respectively) and safety (94% and 96%) for patients discharged from ICU. The majority of respondents indicated that patient summaries (87% and 85%) and medication reconciliation (78% and 79%) were part of their institutions' discharge process. One-half of respondents reported the use of discharge protocols, while a minority indicated that checklists (46% and 44%), electronic tools (19% and 28%) or outreach follow-up (44% and 33%) were used. The majority of respondents rated current ICU discharge practices to be of medium quality (57% and 58% scored 3 on a five-point scale). Suggested opportunities for improvement included the information provided to patients and families (71% and 59%) and collaboration among hospital units (65% and 66%).	key informants included ICU administrators to obtain an institutional perspective and members of professional critical care associations to obtain a provider perspective.
3.Ohanga (2009)	Qualitative descriptive design. The results showed that communication as a form of information sharing was an important aspect in this study, time to prepare was perceived as important by ward nurses when receiving ICU patients, whereby nurses know what to expect when the patient arrives, what equipment is required, aspects of staffing levels and having appropriately experienced staff on the wards. Documentation as a continuation of patient care focuses on fluid balance and observation charts, medication charts and transfer forms. Families' need is recognised as a part of nursing care and the transition process,	Participants worked either full time or part time

	and lastly post ICU visits whereby introducing an ICU nurse or doctor who goes to see the patients in the wards after discharge.	
4.Watts, Gardner and Pierson (2005)	Prospective exploratory descriptive study. Participants reported that a lack of time was a barrier to discharge planning. Communication however, could enhance or impede the discharge planning process in critical care. Participants considered that the critical pathway, used in the care of cardiothoracic patients, did assist with communication of discharge planning processes, hence enhancing the process.	Participants worked either full time or part time.
5.Watts, Pierson and Gardner (2006)	An exploratory descriptive design The current discharge planning processes are ad hoc and influenced by patient acuity. Critical care nurses believe that workload issues, unplanned discharges and inadequate communication contribute to difficulties implementing the discharge plan.	Participants could work full- or part-time.
Absence of full research reports. It was difficult to determine the inclusion and exclusion criteria based on the abstracts only (n=3).		
1.Bhengu (2007)	Descriptive qualitative study. ICU directors kept patients longer in the ICUs for the following reasons: * Lack of intermediate units (step down and high dependency units). * A problem of perception whereby long-term ICU patients were perceived as usual general ward patients * Sub-optimal staff and equipment in the general wards * Anecdotal and empirical evidence of re-admissions linked with early ICU discharge * Anecdotal and empirical evidence of being called to certify death rather than resuscitate	Abstract only
2.Kitchens (2009)	A quasi-experiment design. Key findings: Reduced levels of anxiety (P= .02)	Abstract only

	Increased transfer knowledge. A paired t test (P=.05) was statistically significant for pretest and posttest anxiety scores (P=.021). The positive survey response supported an increase in transfer knowledge. Conclusion: This study provided the value of providing family members with written and verbal transfer information to increase knowledge and decrease transfer anxiety.	
3.Son, Suh and Hong (2009)	Focus group interviews. Seven major categories were identified in the analysis of the data. These were 'mixed feeling about transfer', 'lack of transfer readiness', 'increase in family burden', 'uncertainty with unfamiliar environment', 'difficulty in decision making', 'difference of perception of the relationships between patients and health care providers', 'need for continuity of nursing care'.	Abstract only in English Full article in Korean language
Various other reasons (n=4).		
1.Jung and Chon (2014)	Q methodology As a result of analysis using QUANL PC program, 4 types of attitudes appeared. The patients of the 1st type were obeying medical staff, the patients of the 2nd type were afraid of being transferred to general ward, feeling safer in ICU where intensive care is conducted, those of the 3rd type felt safe in ICU, hoping to transfer to general ward as soon as possible, and the patients of the 4th type thought that it is natural that he/she should start as an ICU patient recovering as it be.	Q methodology was not congruent with the three common methodological domains for the present study.
2.Li, Stelfox and Ghali (2011)	Observational study. Overall, the levels of satisfaction with communication (scored on a 10-point scale) for sending physicians, receiving physicians, and patients were 7.9_1.1, 8.1_1.0, and 7.9_1.7, respectively. The overall levels of satisfaction with communication during ICU-to-ward patient transfer were reasonably high among the stakeholders.	Outcomes measured included medical errors and near miss events as a measure of quality of care.

3.St-Louis and Brault (2011)	The introduction of a formal assessment, consultation, and follow-up process conducted by a clinical nurse specialist. The CNS led initiative decreased stress for patients and families; facilitated the transition process; optimized continuity of care; increased feeling of competency for the receiving team; and increased levels of patient, family, and staff satisfaction.	Feature/expert/ opinion article (non-original research)
4.Watts and Gardner (2005)	A qualitative descriptive study. All participants stated emphatically that they were involved in the discharge planning process although differing levels of involvement existed. 'Organizing' and 'planning' were key words used by participants to define the term discharge planning. All but one participant considered the nurse to be the coordinator of the discharge planning process. How participants communicated with other nursing staff regarding the discharge planning needs of individual patients depended on the policy of each individual ward. Communication was perceived to be a major factor that either enhanced or impeded the discharge planning process.	The study was not specific to ICU discharge

APPENDIX S

EXPLANATORY COVER LETTER FOR EXPERTS

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

Dear Colleague,

My name is Wyness Gondwe, a critical care nurse educator currently registered to read for a PhD at the University of the Witwatersrand. I am hoping to complete a research project for the development and pilot testing of a clinical nursing guideline for transition of psychosocial care of patients recently transferred from ICU to the ward and their families before, during and after the transfer at one tertiary hospital in Malawi.

The purpose of the study is to provide safe and efficient transitional care to patients and families transferred from ICU to the ward. The study will be conducted in three phases: exploratory, development and verification and pilot testing phase. In phase one, semi structured researcher administered individual interviews will be conducted with patients recently transferred from ICU and families, multidisciplinary team including medical clinicians and nurses to solicit their expert opinions and/or experiences with transition of care in order to include them in the clinical guideline to make it effective. In phase two, data obtained from phase 1 will be analysed and presented in narrative form. Integrative review of literature will also be conducted to provide evidence-based practice on transition of care from ICU. A draft clinical guideline will be developed based on results of phase 1 and integrative literature review. The draft guideline will be verified by external and internal stakeholders in order to seek and incorporate their experts' opinion and/or experiences with transition of care from ICU. In phase three, the clinical guideline will be pilot tested and outcomes assessed on patients recently transferred from ICU and their families. Structured individual researcher administered interviews, will be conducted to assess anxiety as primary outcome and satisfaction with care as secondary outcome pre- and post-intervention. Participant data on anxiety levels and degree of satisfaction with care will be presented. Post-intervention, semi structured focus group researcher facilitated interviews with medical clinicians and nurses will be conducted to elicit their experiences or views in the safety and efficiency of the developed clinical guideline on transition of care from ICU**.**

I therefore invite you as an expert in the field to be part of an expert group in assisting me to verify the developed clinical guideline in order to inform nursing practice of transition of care from intensive care unit to the ward. To verify the clinical guideline, you will be required to complete a questionnaire on recommendations and their explanations which will be developed and self-administered by you. This will require you indicating "**Agree", "Disagree" or "Unsure"** against the statements giving rationales for the decision.

Participation in the verification process is completely voluntary. Due to the need to contact you, I would kindly request that you provide personal details on the questionnaire that will be presented to you. As you are an acknowledged expert in the area under study, you will appreciate that your anonymity will be compromised. However, I undertake to ensure that no identification of your personal information will be given in reporting on your opinions so as to ensure your confidentiality. If you consent to be part of pthe expert group, please complete the attached consent form and return it to me.

I appreciate that you will derive no direct benefit from participating. However, I hope that the completed study will assist nurses working in the intensive care unit and surgical wards to understand and provide a safe and efficient transition of care.

The study and its procedures have been approved by appropriate authorities and research committees of the University of the Witwatersrand in South Africa, the College of Medicine Research and Ethics Committee and Queen Elizabeth Central Hospital in Malawi.

Thank you for taking the time to read this explanatory letter. Should you have any further questions about the study, please do not hesitate to contact me by email on wynessgondwe@kcn.unima.mw or call 0888738294 or write the chairperson, College of Medicine Research and Ethics committee (COMREC), College of Medicine, P/Bag 360, Chichiri, Blantyre 3, Malawi or telephone 01 877 245.

APPENDIX T

STAKEHOLDERS' VERIFICATION QUESTIONNAIRE FOR ICU TRANSITIONAL CARE CLINICAL GUIDELINE

A. PERSONAL DETAILS

Instruction: *Please supply the following information:*

Please list your professional qualifications/level of education whichever is applicable.

State the name of the institution that you are affiliated with where applicable.

Indicate your position in critical care by ticking the appropriate box.

Clinical expert	Academic expert	Representative of professional body	Representative Ministry of Health	Recently transferred ICU patient	Family of recently transferred ICU patient

State your experience with critical care in years for professionals and number of days in ICU and wards combined for patients and families in the appropriate box.

By work	By affiliation	As patient	As family

Please state your contact telephone number.

B. RATING OF GUIDELINE RECOMMENDATIONS

Instruction: *Please rate the relevance of the recommendations and their explanations in the clinical guideline by indicating "Agree", "Disagree" or "Unsure" against the statements and give rationales for your decision. Also feel free to provide additional information or comments in the space provided.*

RECOMMENDATION STATEMENT	RATE	RATIONALE

COMMENTS:……
……...…
……...…

APPENDIX U

ENGLISH STRUCTURED QUESTIONNAIRE FOR THE PATIENT

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

Instruction: Complete the following interviewee information:

1.0 PATIENT DEMOGRAPHICS

1.1 RESEARCH CODE

1.2 AGE

< 20 years	20 – 39 years	40 – 59 years	60 – 79 years	>79 years

1.3 GENDER

Male	Female

1.4 DATE OF ADMISSION TO ICU

1.5 REASON FOR ICU ADMISSION

Medical	Scheduled surgery	Emergency surgery

1.6 DATE OF TRANSFER FROM ICU

1.7 NUMBER OF DAYS IN THE WARD

Instruction: For each item below, please place a check mark (√) in the column which best describes how often you felt or behaved this way during the past several days that you were in ICU and now that you are in the ward.

2.0 20 ITEM ZUNG SELF-RATING ANXIETY SCALE (SAS) ASSESSING PATIENT ANXIETY LEVELS

Place check mark (√) in correct column.	**A little of the time**	**Some of the time**	**Good part of the time**	**Most of the time**
2.1 I feel more nervous and anxious than usual.				
2.2 I feel afraid for no reason at all.				
2.3 I get upset easily or feel panicky.				
2.4 I feel like I'm falling apart and going to pieces.				
2.5 I feel that everything is all right and nothing bad will happen.				
2.6 My arms and legs shake and tremble.				
2.7 I am bothered by headaches neck and back pain.				
2.8 I feel weak and get tired easily.				
2.9 I feel calm and can sit still easily.				
2.10 I can feel my heart beating fast.				
2.11 I am bothered by dizzy spells.				
2.12 I have fainting spells or feel like it.				
2.13 I can breathe in and out easily.				
2.14 I get feelings of numbness and tingling in my fingers and toes.				
2.15 I am bothered by stomach aches or indigestion.				
2.16 I have to empty my bladder often.				
2.17 My hands are usually dry and warm.				
2.18 My face gets hot and blushes.				
2.19 I fall asleep easily and get a good night's rest.				
2.20 I have nightmares.				

3.0 14-ITEM SHORTENED VERSION OF THE CRITICAL CARE FAMILY NEEDS INVENTORY ASSESSING PATIENT SATISFACTION WITH CARE IN ICU

3.1 Do you feel that the best possible care was given to you?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.2 Do you feel the hospital personnel care about you?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.3 Have explanations given to you about your condition been in terms you can understand?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.4 Do you feel that you have been given honest information about your condition?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.5 Do you understand what is happening to you and why things are being done?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.6 Have the staff members been courteous to you?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.7 Have any of the staff members shown interest in how you are doing?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.8 Do you believe that someone from the ICU would call your family at home with any major or significant change in your condition?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.9 Have the hospital staff explained the equipment being used?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.10 I am very satisfied with the medical care I am receiving.

Almost all of the time	Most of the time	Only some of the time	None of the time

3.11 There are some things about the medical care you receive that could be better?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.12 Do you feel your family felt comfortable when they visited you in the intensive care unit?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.13 Do you think the waiting room is a comfortable place for family to wait?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.14 Do you think your family would feel alone and isolated in waiting room?

Almost all of the time	Most of the time	Only some of the time	None of the time

4.0 16-ITEM PICKER ADULTS IN PATIENT QUESTIONAIRE FOR ASSESSING PATIENT SATISFACTION OF CARE IN THE WARD.

4.1 When you had important questions to ask a clinician, did you get the answers that you could understand?

Yes, always	Yes, sometimes	No, I had no need to ask

4.2 When you had important questions to ask a nurse, did you get the answers that you could understand?

Yes, always	Yes, sometimes	No, I had no need to ask

4.3 Sometimes in a hospital, one clinician or one nurse will say one thing and another will say something quite different. Did this happen to you?

Yes, often	Yes, sometimes	No

4.4 If you had anxieties or fears about your condition or treatment, did a clinician discuss them with you?

Yes, completely	Yes, to some extent	No, I didn't have any anxieties or fears

4.5 Did medical clinicians talk in front of you as it you weren't there?

Yes, often	Yes sometimes	No

4.6 Did you want to be more involved in decisions made about your care and treatment?

Yes, definitely	Yes, to some extent	No

4.7 Overall, did you feel you were treated with respect and dignity while you were in hospital?

Yes, always	Yes, sometimes	No

4.8 If ever you had anxieties or fears about your condition or treatment, did a nurse discuss them with you?

Yes, completely	Yes, to some extent	No I didn't have any anxieties or fears

4.9 Did you find someone on the hospital staff to talk to about your concerns?

Yes, definitely	Yes, to some extent	No/ I had no concerns

4.10a Were you ever in pain?

Yes	No

4.10b Do you think the hospital staff did everything they could to help control your pain?

Yes, definitely	Yes, to some extent	No

4.11 If your family or someone else close to you wanted to talk to a clinician, did they have enough opportunity to do so?

Yes, definitely	
Yes, to some extent	
No family or friends were involved?	
My family did not want or need information	
I didn't want my family or friends to talk to a clinician?	

4.12 Did the medical clinicians or nurses give your family or someone close to you all the information they needed to help you recover?

Yes, definitely	
Yes, to some extent	
No family or friends were involved	
My family or friends didn't want or need information	

4.13 Did a member of the staff explain the purpose of the medicines you were to take at home in a way that you could understand?

Yes completely	
Yes, to some extent	
No, I didn't need an explanation	
I had no medicines	

4.14 Did a member of staff tell you about medication side effects to watch out for when you go home?

Yes completely	
Yes, to some extent	
No, I didn't need an explanation	
I had no medicines	

4.15 Did someone tell you about the danger signals regarding your illness or treatment to watch for after you go home?

Yes, completely	Yes, to some extent	No

Is there anything else you wish to add: please use the space provided below:

THANK YOU FOR YOUR TIME

APPENDIX V

CHICHEWA STRUCTURED QUESTIONNAIRE FOR THE PATIENT

KUKHAZIKITSA NDI KUYESA NDONDOMEKO YA KUSINTHA KWA CHISAMALIRO CHOMWE CHIMAPEREKEDWA POCHOKA MU CHIPINDA CHA ANTHU ODWALIKA KWAMBIRI KUFIKILA MU WODI KU MALAWI

Langizo: Lembani yankho lanu pa zomumuyenereza wonfunsidwa

1.0 MBIRI YA WODWALA

1.1 NAMBALA YA KAFUFUKU

1.2 ZAKA

< 20 Zaka	20 – 39 Zaka	40 – 59 Zaka	61 – 79 Zaka	>79 Zaka

1.3 JENDA

Mamuna	Mkazi

1.4 TSIKU LOMWE MUNAGONEKEDWA MU ICU

1.5 CHIFUKWA CHOMWE MUNAGONEKEDWERA MU ICU

Matenda	opareshoni wochita kukhonzekeredwa	opareshoni wadzidzdizi

1.6 TSIKU LOTULUKA MU ICU

1.7 NAMBALA YA MASIKU OMWE MUNAKHALA MU WODI

LANGIZO : Pa mphambu iliyonse mmusimu, chonde ikani chizindikiro ichi (√) pa malo amene akufotokoza bwino mmene inuyo munaonera kapena munakhalira chonchi masiku angapo mmbuyomu pamene munali mu ICU ndi nthawi ino pamene muli mu wodi.

2.0 20 ITEM ZUNG SELF-RATING ANXIETY SCALE (SAS) ASSESSING PATIENT ANXIETY LEVELS

Ikani chizindikiro ichi (√) pa malo oyenelera.	**Pang'ono**	**Nthawi zina**	**Nthawi yochulukirapo**	**Nthawi zambiri**
2.1 Ndimakhala ndi vinjenje kwambiri ndinso nkhawa moposera muyeso				
2.2 Ndimakhala ndi mantha popanda chifukwa nkomwe				
2.3 Ndimakhumudwa ndizopanda pake komanso ndimatanganidwa kwabasi				
2.4 Ndikumva ngati ndikugawanika mtidziduswa ting'onoting'ono.				
2.5 Ndikumva ngati zonse zili bwino ndipo choipa chilichonse sichichitika				
2.6 Manja ndi miyendo yanga imagwedezeka ndi kunjenjemera				
2.7Ndimamva kupweteka mutu, khosi ndi msana.				
2.8 Ndimamva kufooka ndi kutopa mwachangu				
2.9 Ndimamva kudekha ndiponso ndimatha kungokhala pansi mosavuta				
2.10 Ndimakhoza kumva mtima wanga ukugunda mothamanga				
2.11 Ndimamva chizumbazumba pafupipafupi				
2.12 Ndimakomokakomoka komanso kulenguka				
2.13 Ndimatha kupumira nkati komanso kunja mosavuta.				
2.14 Ndimamva zanzi ndi kulasalasa mdzala zammanja ndi ku mapazi				
2.15 Ndimavutika ndi kupweteka mmimba komanso kudzimbidwa.				
2.16 Ndimayenera kumataya madzi pafupipafupi				
2.17 Manja anga nthawi zambiri amakhala owuma ndi ofunda.				
2.18 Nkhope yanga imatentha ndi kufiira.				
2.19 Sindichedwa kupeza tulo komanso ndimagona mokwanira usiku				
2.20 Ndimadzidzimuka dzidzimuka ndikagona.				

3.0 14-ITEM SHORTENED VERSION OF THE CRITICAL CARE FAMILY NEEDS INVENTORY ASSESSING PATIENT SATISFACTION WITH CARE IN ICU

3.1 Kodi mukuona kuti chisamaliro chimene munalandira chinali choyenerera?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina zokha	Olo nkamodzi komwe

3.2 Kodi mukuona kuti achipatala amalabadira za inuyo?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.3 Kodi mafotokozedwe a za matendawa kwa inu anaperekedwa mundondomeko yakuti mukanamvetsetsa?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.4 Kodi mukuona kuti mwauzidwa fundo zolondola zokhudzana ndi matenda anuwa?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.5 Kodi mukumvetsetsa zomwe zikukuchitikirani inuyo ndiponsi chifukwa chimene zinthu zikuchitikira chonchi?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.6 Kodi ogwira ntchito amakuonetserani khalidwe labwino inuyo?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.7 Pali aliyense mwa wogwira ntchito amene amaonetsa chidwi ndi momwe zinthu zanu mukukhalira?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.8 Kodi mumakhulupilira kuti wina wochokera ku ICU angathe kuyimbira lamya wachibale wanu ku nyumba ngati patakhala kusintha kwakukulu pa matenda anu?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.9 Kodi a chipatala anafotokoza za zida zimene akugwilira ntchito?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Palibepo

3.10 Ndili wokhutitsidwa kwambiri ndi chisamaliro chimene ndikulandira.

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.11 Pali zinthu zina zokhuza chisamaliro chimene mukulandira zomwe zinayenera kukhala bwino?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.12 Kodi mukuona kuti achibale anu anali otakasuka nthawi imene amadzakuonani mu chipinda chogonekamo anthu odwalika kwambiri (ICU)?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.13 Kodi mukuganiza kuti chipinda chodikiliramo ndi malo otakasuka kuti achibale akhoza kukhalamo?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.14 Mukuganiza kuti achibale anu akhoza kukhala osungulumwa ndi opatulidwa mu chipinda chodikilira odwalacho?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

4.0 16-ITEM PICKER ADULTS IN PATIENT QUESTIONAIRE FOR ASSESSING PATIENT SATISFACTION OF CARE IN THE WARD.

4.1 Pamene munali ndi mafunso ofunikira kwambiri oti mufunse a dotolo, kodi munapeza mayankho amene munatha kuwamvetsa?

Eya, nthawi zonse	Eya, nthawi zina	Ai, ndinalibe khumbokhumbo lofunsa

4.2 Pamene munali ndi mafunso ofunikira kwambiri kuti muwafunse namwino, kodi munalandira mayankho omwe munamvetsetsa?

Eya, nthawi zonse	Eya, nthawi zina	Ai, ndinalibe khumbokhumbo lofunsa

4.3 Nthawi zina muchipatala, dotolo mmodzi kapena anamwino mmodzi amanena chinthu china ndipo winanso amanena china chosiyananirantu. Kodi izi zinakuchitikiramponi inuyo?

Eya, nthawi zambiri	Eya, nthawi zina	Ai

4.4 Ngati munali ndi nkhawa kapena mantha pa matenda anu kapena thandizo limene mumalandira, kodi a dotolo anakambirana nanu za zimenezi?

Eya, motsimikizika	Eya, mwachonchobe	Ai ndinalibe nkhawa kapena mantha aliwonse

4.5 Kodi madotolo amatha kuyankhula pa maso panu ngati kuti inuyo panalibepo?

Eya, nthawi zambiri	Eya, nthawi zina	Ai

4.6 Kodi mumafuna mutamatenga nawo mbali yaikulu pa malingaliro okhuza chisamaliro ndi thandizo lanu?

Eya, kwambirikwake	Eya, mwachonchobe	Ai

4.7 Mongophatikiza zonse, kodi munaona kuti munathandizidwa mokulemekezani pa nthawi imene munali mchipatala?

Eya, nthawi zonse	Eya, nthawi zina	Ai

4.8 Ngati munakhalapo ndi nkhawa kapena mantha pa matenda kapena thandizo lanu, kodi namwino anakambirana nanu za zimenezi?

Eya, motsimikizika	Eya, mwapatalipatali	Ai ndinalibe nkhawa kapena mantha aliwonse

4.9 Kodi munapeza wina wake mwa ogwira ntchito mchipatala woti munamuuza za nkhawa zanu?

Eya, kwanthuthu	Eya, mwapatalipatali	Ai, ndinalibe nkhawa

4.10a Kodi mumamva kupweteka?

Eya	Ai

4.10b Kodi mukuganiza kuti ogwira ntchito mchipatala anapanga china chili chonse kuthandizani kuti ululu wanu uchepe?

Eya. kwanthuthu	Eya, mwapatalipatali	Ai

4.11 Ngati achibale anu kapena wina aliyense amene ali mzanu amafuna kulankhula ndi a dotolo, kodi amapatsidwa mwawi wokwanira woterowo?

Eya, kwambirikwake	
Eya, mwachonchobe	
Palibe achibale kapena abwenzi amene anakhuzidwa	
Achibale sanafune kapena kuti analibe chidwi chofuna kudziwa	
Sindinafune achibale kapena abwenzi kuti ayankhule ndi a dotolo	

4.12 Kodi ma dotolo kapena anamwino amawapatsa achibale anu kapena wina aliyense amene ali mzanu ndondomeko imene imafuna kuti ithe kukuthandizirani inuyo kuchila?

Eya, kwambirikwake	
Eya, mwachonchobe	
Palibe achibale kapena abwenzi amene anakhuzidwa	
Achibale sanafune kapena kuti analibe chidwi chofuna kudziwa	

4.13 Kodi ogwira ntchito anafotokoza za cholinga cha mankhwala amene mumayenera mudzikamwa mukapita ku nyumba mundondomeko yomveka?

Eya, kwathunthu	
Eya, mwachonchobe	
Ai, sindinafune kufotokozeredwa	
Ndinalibe mankhwala	

4.14 Kodi ogwira ntchito anafotokoza za zovuta za mankhwalawa zomwe muyenera kukhala nazo tcheru mukapita ku nyumba?

Eya, kwathunthu	
Eya, mwachonchobe	
Ai, sindinafune kufotokozeredwa	
Ndinalibe mankhwala	

4.15 Kodi pali amene anakufotokozerani za zizindikilo zoopsa zomwe muyenera kukakhala nazo tcheru zokhuzana ndi matenda kapena thandizo lanu mukapita kunyumba?

Eya, kwathunthu	Eya, mwachonchobe	Ai

Pali china chilichonse chimene mukufuna mutaonjezera: Chonde gwiritsani malo aperekedwa munsimu:

ZIKOMO KWAMBIRI CHIFUKWA CHA NTHAWI YANU

APPENDIX W

ENGLISH DATA COLLECTION QUESTIONNAIRE FOR FAMILY MEMBER

DEVELOPMENT AND PILOT TESTING OF A CLINICAL NURSING GUIDELINE FOR TRANSITION OF PSYCHOSOCIAL CARE FROM INTENSIVE CARE TO THE WARD IN MALAWI.

Instruction: Complete the following interviewee information:

1.0 FAMILY MEMBER DEMOGRAPHIC DATA

1.1 RESEARCH CODE

1.2 AGE

< 20 years	20 – 39 years	40 – 59 years	62 – 79 years	>79 years

1.3 GENDER

Male	Female

1.4 EDUCATIONAL LEVEL

<high school	High school	Some college	University	Advance degree

1.5 PREVIOUS INTENSIVE CARE EXPERIENCE

Yes	No

1.6 RELATIONSHIP TO FAMILY MEMBER

Spouse	Significant other	Parent	Son/daughter	Brother/sister

1.7 FAMILY SIZE

None	1	2-3	4-6	>6

3.15 DISTANCE TO THE HOSPITAL

In city	<1 hr drive	1-3 hr drive	>3hr drive

3.16 VISITING DURATION/DAY

<2 hrs	2-4 hrs	4-6 hrs	6-12hrs	>12 hrs

Instruction: For each item below, please place a check mark (√) in the column which best describes how often you felt or behaved this way during the past several days that you were in ICU and now that you are in the ward.

2.0 20 ITEM ZUNG SELF-RATING ANXIETY SCALE (SAS) ASSESSING FAMILY ANXIETY LEVELS

Place check mark (√) in correct column.	**A little of the time**	**Some of the time**	**Good part of the time**	**Most of the time**
2.1 I feel more nervous and anxious than usual.				
2.2 I feel afraid for no reason at all.				
2.3 I get upset easily or feel panicky.				
2.4 I feel like I'm falling apart and going to pieces.				
2.5 I feel that everything is all right and nothing bad will happen.				
2.6 My arms and legs shake and tremble.				
2.7 I am bothered by headaches neck and back pain.				
2.8 I feel weak and get tired easily.				
2.9 I feel calm and can sit still easily.				
2.10 I can feel my heart beating fast.				
2.11 I am bothered by dizzy spells.				
2.12 I have fainting spells or feel like it.				
2.13 I can breathe in and out easily.				
2.14 I get feelings of numbness and tingling in my fingers and toes.				
2.15 I am bothered by stomach aches or indigestion.				
2.16 I have to empty my bladder often.				
2.17 My hands are usually dry and warm.				
2.18 My face gets hot and blushes.				
2.19 I fall asleep easily and get a good night's rest.				
2.20 I have nightmares.				

3.0 14-ITEM SHORTENED VERSION OF THE CRITICAL CARE FAMILY NEEDS INVENTORY ASSESSING FAMILY MEMBERS'SATISFACTION WITH CARE IN ICU

3.1 Do you feel that the best possible care is being given to your relative?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.2 Do you feel the hospital personnel care about your relative?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.3 Have the explanations given to you about your relative's condition been in terms you can understand?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.4 Do you feel that you have been given honest information about your relative's condition?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.5 Do you understand what is happening to your relative and why things are being done?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.6 Have the staff members been courteous to you?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.7 Have any of the staff members shown interest in how you are doing?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.8 Do you believe that someone will call you at home with any major or significant change in your relative's condition?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.9 Have the hospital staff explained the equipment being used on your relative?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.10 I am very satisfied with the medical care my relative receives.

Almost all of the time	Most of the time	Only some of the time	None of the time

3.11 There are some things about the medical care my relative receives that could be better?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.12 Do you feel comfortable visiting your relative in the intensive care unit?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.13 Is the waiting room comfortable?

Almost all of the time	Most of the time	Only some of the time	None of the time

3.15 Do you feel alone and isolated in the waiting room?

Almost all of the time	Most of the time	Only some of the time	None of the time

4.0 16-ITEM PICKER ADULTS IN PATIENT QUESTIONAIRE FOR ASSESSING FAMILY MEMBERS' SATISFACTION OF CARE IN THE WARD.

4.1 When you had important questions to ask a clinician, did you get the answers that you could understand?

Yes, always	Yes, sometimes	No, I had no need to ask

4.2 When you had important questions to ask a nurse, did you get the answers that you could understand?

Yes, always	Yes, sometimes	No, I had no need to ask

4.3 Sometimes in a hospital, one clinician or one nurse will say one thing and another will say something quite different. Did this happen to you?

Yes, often	Yes, sometimes	No

4.4 If you had anxieties or fears about the condition or treatment of your relative did a clinician discuss them with you?

Yes, completely	Yes, to some extent	No, I didn't have any anxieties or fears

4.5 Did medical clinicians talk in front of you as it you weren't there?

Yes, often	Yes sometimes	No

4.6 Did you want to be more involved in decisions made about care and treatment of your relative?

Yes, definitely	Yes, to some extent	No

4.7 Overall, did you feel you were treated with respect and dignity while you were in hospital?

Yes, always	Yes, sometimes	No

4.8 If ever you had anxieties or fears about your relative's condition or treatment, did a nurse discuss them with you?

Yes, completely	Yes, to some extent	No, I didn't have any anxieties or fears

4.9 Did you find someone on the hospital staff to talk to about your concerns?

Yes, definitely	Yes, to some extent	No/ I had no concerns

4.10a Did you ever feel your relative was in pain?

Yes	No

4.10b Do you think the hospital staff did everything they could to help control your relative's pain?

Yes, definitely	Yes, to some extent	No

4.11 If your family or someone else close to you wanted to talk to a clinician, did they have enough opportunity to do so?

Yes, definitely	
Yes, to some extent	
No family or friends were involved?	
My family did not want or need information	
I didn't want my family or friends to talk to a clinician?	

4.12 Did the medical clinicians or nurses give your family or someone close to you all the information they needed to help your relative recover?

Yes, definitely	
Yes, to some extent	
No family or friends were involved	
My family or friends didn't want or need information	

4.13 Did a member of the staff explain the purpose of the medicines your relative is to take at home in a way that you could understand?

Yes completely	
Yes, to some extent	
No, I didn't need an explanation	
I had no medicines	

4.14 Did a member of staff tell you about medication side effects to watch out for when your relative goes home?

Yes completely	
Yes, to some extent	
No, I didn't need an explanation	
I had no medicines	

4.15 Did someone tell you about the danger signals regarding your relative's illness or treatment to watch for after your relative goes home?

Yes, completely	Yes, to some extent	No

Is there anything else you wish to add: please use the space provided below:

THANK YOU FOR YOUR TIME

APPENDIX X

CHICHEWA DATA COLLECTION QUESTIONNAIRE FOR FAMILY MEMBER

KUKHAZIKITSA NDI KUYESA NDONDOMEKO YA KUSINTHIKA KWA CHISAMALIRO CHOMWE CHIMAPEREKEDWA POCHOKA MU CHIPINDA CHA ANTHU ODWALIKA KWAMBIRI KUFIKILA MU WODI KU MALAWI

Langizo: Lembani yankho lanu pa zomumuyenereza wonfunsidwa

4.0 MBIRI YA WACHIBALE

1.1 NAMBALA YA KAFUKUFUKU

1.2 ZAKA

< 20 zaka	20 – 39 zaka	40 – 59 zaka	63 – 79 zaka	>79 zaka

1.3 JENDA

Mamuna	Mkazi

1.4 MLINGO WA MAPHUNZIRO

kuchepera high sukulul	High sukulul	Ma kolege enawa	Sukulu ya ukachenjede	Digiri ya pamwamba

1.5 MUNAYAMBA MWAKHALAPO MU CHIPINDA CAH ANTHU ODWALIKA KWAMBIRI M'MBUYOMU

Eya	Ai

1.6 UBALE WANU NDIWOTANI

Banja	Ongodziwana nawo	kholo	Mwana wamamuna/wamkazi	Mchimwene/chemwali

1.7 KUKULA KWA BANJA

Palibe	Mmodzi	Awiri mpaka atatu	Anai mpaka asanu ndi mmodzi	kuposera asanu ndi mmodzi

3.17 MTUNDA WOKAFIKA KU CHIPATALA

Ndi mkatikati mwa tauni	mtunda wochepera ola limodzi pagalimoto	mtunda wa ola limodzi mpaka ma ola atatu pagalimoto	mtunda woposera maola atatu pagalimoto

3.18 NTHAWI YOZONDERA MATENDA

Kuchepera maola awiri	Maola awiri mpakana anai	Maola anai mpakana maola asanu ndi limodzi	Maola asanu ndi limodzi mpakana maola khumi ndi mphambu ziwiri	Kuposera maola khumi ndi mphambu ziwiri

Langizo: Pa mphambu iliyonse mmusimu, chonde ikani chizindikiro ichi (√) pa malo amene akufotokoza bwino mmene inuyo munaonera kapena munakhalira chonchi masiku angapo mmbuyomu pamene munali mu ICU ndi nthawi ino pamene muli mu wodi.

5.0 20 ITEM ZUNG SELF-RATING ANXIETY SCALE (SAS) ASSESSING PATIENT ANXIETY LEVELS

Ikani chizindikiro ichi (√) pa malo oyenelera.	**Pang'ono**	**Nthawi zina**	**Nthawi yochulukirapo**	**Nthawi zambiri**
2.1 Ndimakhala ndi vinjenje kwambiri ndinso nkhawa moposera muyeso				
2.2 Ndimakhala ndi mantha popanda chifukwa nkomwe				
2.3 Ndimakhumudwa ndizopanda pake komanso ndimatanganidwa kwabasi				
2.4 Ndikumva ngati ndikugawanika mtidziduswa ting'onoting'ono.				
2.5 Ndikumva ngati zonse zili bwino ndipo choipa chilichonse sichichitika				
2.6 Manja ndi miyendo yanga imagwedezeka ndi kunjenjemera				
2.7Ndimamva kupweteka mutu, khosi ndi msana.				
2.8 Ndimamva kufooka ndi kutopa mwachangu				
2.9 Ndimamva kudekha ndiponso ndimatha kungokhala pansi mosavuta				
2.10 Ndimakhoza kumva mtima wanga ukugunda mothamanga				
2.11 Ndimamva chizumbazumba pafupipafupi				
2.12 Ndimakomokakomoka komanso kulenguka				
2.13 Ndimatha kupumira nkati komanso kunja mosavuta.				
2.14 Ndimamva zanzi ndi kubayabaya mdzala zammanja ndi ku mapazi				
2.15 Ndimavutika ndi kupweteka mmimba komanso kudzimbidwa.				
2.16 Ndimayenera kumataya madzi pafupipafupi				
2.17 Manja anga nthawi zambiri amakhala owuma ndi otenthera.				
2.18 Nkhope yanga imatenthera ndiponso imafiira.				
2.19 Sindichedwa kupeza tulo komanso ndimagona mokwanira usiku				
2.20 Ndimadzidzimuka dzidzimuka ndikagona.				

3.0 14-ITEM SHORTENED VERSION OF THE CRITICAL CARE FAMILY NEEDS INVENTORY ASSESSING FAMILY MEMBERS'SATISFACTION WITH CARE IN ICU

3.1 Kodi mukuona kuti abale anu akulandira chisamaliro choyenerera?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina zokha	Olo nkamodzi komwe

3.2 Kodi mukuona kuti achipatala akulabadira za abale anu?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.3 Kodi mafotokozedwe a za matenda a m'bale wanu kwa inu anaperekedwa mundondomeko yakuti mukanamvetsetsa?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.4 Kodi mukuona kuti mwauzidwa uthenga wolondola wokhuzana ndi matenda a m'bale wanu?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.5 Kodi mukumvetsetsa zomwe zikumuchitikira m'bale wanuyo ndiponso chifukwa chimene zinthu zikuchitikira chonchi?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.6 Kodi ogwira ntchito amakuonetserani khalidwe labwino inuyo?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.7 Pali aliyense mwa wogwira ntchito amene amaonetsa chidwi ndi momwe mukukhalira?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.8 Kodi mumakhulupilira kuti wina kuchokera ku ICU angathe kukuyimbirani lamya ku nyumba ngati patakhala kusintha kwakukulu pa matenda a m'bale wanu?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.9 Kodi a chipatala anafotokoza za zida zimene akugwilira ntchito pa m'bale wanu?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.10 Ndili wokhutitsidwa kwambiri ndi chisamaliro chimene m'bale wanga akulandira.

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.11 Pali zinthu zina zokhuza chisamaliro chimene m'bale wanga akulandira zomwe zinayenera kukhala bwino?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.12 Kodi mumakhala omasuka pamene mumazonda m'bale wanu mu chipinda chogonekamo anthu odwalika kwambiri (ICU)?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.13 Kodi chipinda chodikiliramo ndi malo otakasuka kukhalamo?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

3.14 Kodi mumakhala osungulumwa ndi opatulidwa mukakhala mu chipinda chodikiliracho?

Pafupifupi nthawi zonse	Nthawi zambiri	Nthawi zina	Olo nkamodzi komwe

4.0 16-ITEM PICKER ADULTS IN PATIENT QUESTIONAIRE FOR ASSESSING FAMILY MEMBERS' SATISFACTION OF CARE IN THE WARD.

4.1 Pamene munali ndi mafunso ofunikira kwambiri oti mufunse a dotolo, kodi munapeza mayankho amene munatha kuwamvetsa?

Eya, nthawi zonse	Eya, nthawi zina	Ai, ndinalibe khumbokhumbo lofunsa

4.2 Pamene munali ndi mafunso ofunikira kwambiri kuti mufunse namwino, kodi munalandira mayankho omwe munamvetsetsa?

Eya, nthawi zonse	Eya, nthawi zina	Ai, ndinalibe khumbokhumbo lofunsa

4.3 Nthawi zina muchipatala, dotolo mmodzi kapena namwino mmodzi amanena chinthu china ndipo winanso amanena china chosiyaniranatu. Kodi izi zinakuchitikiramponi inuyo?

Eya, nthawi zambiri	Eya, nthawi zina	Ai

4.4 Ngati munali ndi nkhawa kapena mantha pa matenda anu kapena thandizo limene mumalandira, kodi a dotolo anakambirana nanu za zimenezi?

Eya, kwathunthu	Eya, mwachonchobe	Ai ndinalibe nkhawa kapena mantha aliwonse

4.5 Kodi madotolo amatha kuyankhula pa maso panu ngati kuti inuyo panalibepo?

Eya, nthawi zambiri	Eya, nthawi zina	Ai

4.6 Kodi mumafuna mutamatenga nawo mbali yaikulu pa malingaliro okhuza chisamaliro ndi thandizo la m'bale wanu?

Eya, kwambirikwake	Eya, mwachonchobe	Ai

4.7 Mongophatikiza zonse, kodi munaona kuti munathandizidwa mokulemekezani pa nthawi imene munali mchipatala?

Eya, nthawi zonse	Eya, nthawi zina	Ai

4.8 Ngati munakhalapo ndi nkhawa kapena mantha pa matenda kapena thandizo la m'bale wanu, kodi namwino anakambirana nanu za zimenezi?

Eya, kwathunthu	Eya, mwachonchobe	Ai ndinalibe nkhawa kapena mantha aliwonse

4.9 Kodi munapeza wina wake mwa ogwira ntchito mchipatala woti mumauza za nkhawa zanu?

Eya, kwambirikwake	Eya, mwachonchobe	Ai, ndinalibe nkhawa

4.10a Kodi munayamba mwaganizapo kuti m'bale wanu amamva kupweteka?

Eya	Ai

4.10b Kodi mukuganiza kuti ogwira ntchito mchipatala anapanga china chili chonse kuthandiza kuchepesa ululu wa m'bale wanu?

Eya, kwambirikwake	Eya, mwachonchobe	Ai

4.11 Ngati achibale anu kapena wina aliyense amene ali mzanu amafuna kulankhula ndi a dotolo, kodi amapatsidwa mwawi wokwanira woterowo?

Eya, kwambirikwake	
Eya, mwachonchobe	
Palibe achibale kapena abwenzi amene anakhuzidwa	
Achibale sanafune kapena kuti analibe chidwi chofuna kudziwa	
Sindinafune achibale kapena abwenzi kuti ayankhule ndi a dotolo	

4.12 Kodi ma dotolo kapena anamwino amawapatsa achibale anu kapena wina aliyense amene ali mzanuI uthenga umene amawufuna kuit imuthandizire m'bale wanu kuchila?

Eya, kwambirikwake	
Eya, mwachonchobe	
Palibe achibale kapena abwenzi amene anakhuzidwa	
Achibale sanafune kapena kuti analibe chidwi chofuna kudziwa	

4.13 Kodi ogwira ntchito anafotokoza za cholilnga cha mankhwala amene m'bale wanu amayenera kukamwera mukapita ku nyumba mundondomeko yomveka?

Eya, kwathunthu	
Eya, mwachonchobe	
Ai, sindinafune kufotokozeredwa	
Ndinalibe mankhwala	

4.15 Kodi ogwira ntchito anafotokoza za zovuta za mankhwalawa zomwe muyenera kukakhala nazo tcheru m'bale wanu akapita ku nyumba?

Eya, kwathunthu	
Eya, mwachonchobe	
Ai, sindinafune kufotokozeredwa	
Ndinalibe mankhwala	

4.16 Kodi pali amene anakufotokozerani za zizindikilo zoopsa zomwe muyenera kukakhala nazo tcheru zokhuzana ndi matenda kapena thandizo pamene m'bale wanu akapita kunyumba?

Eya, kwathunthu	Eya, mwachonchobe	Ai

Pali china chilichonse chimene mukufuna mutaonjezera: Chonde gwiritsani malo aperekedwa munsimu:

ZIKOMO KWAMBIRI CHIFUKWA CHA NTHAWI YANU

APPENDIX Y

LANGUAGE PROOFREADING AND EDITTING

Gill Smithies

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Work Certificate

To	Dr. Shelley Schmollgruber
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Subject	Thesis: Development and pilot testing of a clinical guideline for transition of care from Intensive Care Unit to ward in Malawi
Ref	SS/GS/34

I, Gill Smithies, certify that I have proofed the following for language, grammar and style:

Thesis: Development and pilot testing of a clinical guideline for transition of care from Intensive Care Unit to ward in Malawi, by W.T.M. Gondwe

to the standard as required by the University of Witwatersrand.

Gill Smithies