Anglia Ruskin University

Faculty of Health, Social Care and Education

Exploring the transition of patients from the Intensive Care Unit to the ward in Nigeria: an exploration of the experiences of nurses

Geraldine Awele Ezirim

(Student No: 1219318)

A Thesis in partial fulfilment of the requirements of Anglia Ruskin University for the degree of Doctor of Philosophy in Health Social Care and Education

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# Abstract

**Anglia Ruskin University**

**Faculty of Health, Social Care and Education**

Exploring the transition of patients from Intensive Care Unit to the ward in Nigeria: an exploration of the experiences of nurses

**Aim:** To explore the experiences of Nigerian nurses regarding the transition of patients from the Intensive Care Unit (ICU) to the ward following a period of critical illness.

**Design:** An explanatory mixed methods approach was adopted in this study.

**Method:** This study was conducted in a tertiary hospital in southern Nigeria. There were two groups of participants in the study; ICU and ward nurses. The study was carried out in two phases, using both quantitative and qualitative approaches to collect and analyse data. The quantitative approach engaged the use of questionnaires which were analysed using descriptive statistics. The outcome of the survey informed the qualitative phase of the study. The qualitative approach involved the use of semi-structured interviews to collect data which were thematically analysed. Semi-structured interviews were audio-recorded and transcribed verbatim before thematically analysed using Braun and Clarke‘s tools to generate various themes and subthemes.

**Result:** A total of 100 questionnaires were distributed for the quantitative survey with a response rate of 56%. 18 ICU and ward nurses participated in the qualitative stage of the study. Findings of the quantitative study provided a contextual overview such as nurse’s involvement, composition of the transitional care team and measures to promote patients transition from ICU to ward. Five themes emerged from the qualitative aspects of the study. These are knowledge of transitional care, transitional care; huge responsibility for ICU and ward nurses, transitional care: challenging for nurses, patients and relatives, ICU discharge: a positive sign for patients and their relatives and suggested measures for improving transitional care.

**Conclusion:** This study provides a contextual insight into the nurse’s perception of the patient’s transition from ICU to the ward following a period of critical illness. Findings of this study can potentially be used within the healthcare setting to improve patients care throughout the transitional care period.

**Keywords**: Transition, Intensive Care Unit, Nigerian nurses, ward, critical illness, Patients.

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**List of Key Abbreviations ………………………………… ix**

ICU: Intensive Care Unit

CCOS: Critical Care Outreach Service

CCPTM: Critical Care Patient Transition Model

NGOs: Non Governmental Organizations

PHC: Primary Health Care

THC: Tertiary Health Care

SHC: Secondary Healthcare

FMC: Federal Medical Centre

UK: United Kingdom

DoH: Department of Health

NHS: National Health Service

MTH: Memorial Teaching Hospital

HDUs: High Dependency Units

NICE: National Institute for Health and Care Excellence

SBT: Spontaneous Breathing Trial

ICT: ICU Liaison Team

CCCM: Comprehensive Critical Care Model

MET: Medical Emergency Team

ALS: Advanced Life Support

ICS: Intensive Care Society

EWS: Early Warning Score

NCEPOD: National Confidential Enquiry into Patients Outcome and Death

RCP: Royal College of Physicians

NEWS: National Early Warning Score

WHO: World Health Organization

SBAR: Situation Background Assessment and Recommendation

ISOBAR: Identify Situation Observation Background Agree a plan and Read

back

NMC: Nursing and Midwifery Council

LOS: Length of Stay

DREP: Department Research Ethics Panel

FREP: Faculty Research Ethics Panel

PIS: Participants Information Sheet

SPSS: Statistical Package for Social Sciences

OSSIE: Organizational leadership Simple solution development Stakeholder

engagement Implementation Evaluation and maintenance

# Copyright Declaration

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A thesis in partial fulfilment of the requirements of Anglia Ruskin University for the degree of Doctor of Philosophy in Health and Social Care

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# Chapter One

## 1.1 Introduction

This thesis explores Nigerian nurses’ experiences of patients’ transition from the Intensive Care Unit (ICU) to the ward following a period of critical illness. Transition is a general term used to describe the process characterised by change from one life phase, form or activity to another (Ramsay, et al., 2013). Patients that require a high level of care using advanced life interventions and technologies to support their health are often admitted to the ICU (Stelfox, et al., 2013). It is estimated that 1in 10 patients admitted to the hospital, could be admitted to the ICU and 90% of patients admitted to the ICU are discharged to other areas of care such as hospital wards (Watts, Gardner and Pierson, 2005; Stelfox, et al., 2013). This implies that numerous patients will be prone to transitions from ICU to the ward following a period of critical illness. Patients discharged from the ICU initiates a reduction in the level of care patients receives because of the drop in clinical interventions provided to patients post-critical illness period (Haggstrom and Backstrom, 2014). Patient’s transition is crucial in nursing, given its relevance across a range of clinical issues relating to health and illness (Meleis, 2010). Also, nursing has been a significant feature throughout the evolution of ICU globally (Crocker, 2007), and in Nigeria, it has been identified as a profession that plays a vital role in the management of critically ill patients (Oguariri and Kabara, 2008). Although patient transition cuts across every unit and ward within a hospital, this study is limited to the transition of patients from ICU to the ward. This is partly because there has been no published research on the transition of patients from ICU to the ward in Nigeria so, little is known about this phenomenon in Nigeria.

The ICU is an area within the healthcare institution that is designated for patients that have been assessed to be very sick with a potentially life-threatening condition and vital organ dysfunction (Onyekwulu and Anya, 2015). Also, great mechanical medical assistance is used to facilitate the monitoring and treatment of critically ill patients (Navalesi, et al., 2014; Tullock, et al., 2007). Nevertheless, it is expected that upon recovery, patients are transferred to other care units for further management. The transition of patients from ICU to the ward is a routine activity for ICU nurses with possible effects on patients (Campos, et al., 2011). Patients discharged from the ICU could be at risk of adverse events resulting in increased morbidity and mortality rate, and possible readmission to the ICU (Chayober, et al., 2008; Haggstrom and Backstrom, 2014). This then informs the decision to explore patient’s transition from ICU to the ward following a period of critical illness.

Although patients transition is not a new concept in healthcare settings, there is limited evidence within the published literature that has explored this concept within the Nigerian healthcare context. A few retrospective studies conducted in Nigeria focused primarily on ICU utilization, pattern of admission and patients’ outcome following ICU admission (Osinaike, Akinyemi and Sanusi, 2012; Onyekwulu and Anya, 2015; Isamade, et al., 2007; Onotai and Ebong, 2013; Adudu and Adudu, 2004; Ilori and Kalu, 2012). The retrospective approach adopted in these studies did not provide the avenue for nurses to offer their opinion regarding patient transition to be explored. Similarly, studies within Africa, are equally limited as they do not provide evidence of an account of patients transition from ICU to the ward. Therefore, it is intended that undertaking this study will provide evidence on account of patients transition from ICU to the ward in Nigeria and identify measures that can be implemented to maximise patient safety following a period of critical illness.

## 1.2 Study Outline

This study is presented in nine chapters:

Chapter one provides a general introduction into the study as well as an outline of the thesis.

Chapter two introduces the reader to the context of this study by providing information on the background of the study, overview of Nigeria and healthcare delivery systems in Nigeria. Furthermore, it contains information about factors affecting transitional care in Nigeria as well as the evolution of critical care and intensive care in Nigeria. This chapter concludes by providing information on the study setting.

Chapter three reviews pieces of literature relating to transitional care of patients. It begins by providing an overview of how the literature included in this study were identified. The critical review of literature discusses the role of discharge planning, optimising patients physiological function, Critical Care Outreach Services (CCOS), models for identifying deteriorating patients, nurses handover practices, communication and documentation in transitional care. Also, a summary of the challenges facing effective patient’s transition is provided in this chapter. This chapter concludes by providing a statement of the research problem, the significance of the research to Nigerian healthcare setting, research objectives and summary of key literature included in the study.

Chapter four provides information on the conceptual framework of this study. It presents some transition models and theories such as Meleis, et al. (2000), Schlossberg (1997) transition theory and Bridges (2009) model. The Critical Care Patient Transition Model (CCPTM) developed from these theories and models were equally presented in this chapter.

Chapter five outlines the methodology of the research as it highlights the paradigmatic stance and philosophical underpinnings of the research. It equally provides justification for the paradigm adopted in the study.

Chapter six addresses the research methods, including the different phases of data collection and analysis. Each phase describes the process of sampling, recruitment of participants, data collection and analysis processes. A section of this chapter also presents the pilot study undertaken in the research. Equally, the research rigour and ethical considerations is presented in this chapter.

Chapter seven presents the findings of the research. The findings are presented in two phases; quantitative and qualitative findings.

Chapter eight discusses the findings of the study.

Chapter nine presents the limitation of the study, recommendation for future research and recommendation for practice. Finally, the chapter ends with the conclusion of the whole thesis.

The remaining part of the research contains the reference list, list of tables and list of figures. Also, essential documents used during the courses of the study, such as the draft of the questionnaire, interview guide and ethical approval letters are attached to the appendix.

# Chapter Two

## 2.1 Background and Context

Critically ill patients that require multiple organ support are often admitted into the Intensive Care Unit (ICU) because of the availability of specialised equipment, monitoring and human resources required to maintain normal physiological function (Chayober, et al., 2012; Poluyi, et al., 2016). In Nigeria, the annual estimate of patients admitted to the ICU varies considerably among healthcare institutions. For example, in the western part of Nigeria between 2007 and 2009, 2010 and 2015 there were 1,207 and 647 ICU admissions respectively (Osinaike, Akinyemi and Sanusi, 2012; Poluyi, et al., 2016). A ten-year retrospective analysis conducted in southern Nigeria revealed that 1,447 patients were admitted to the ICU between 1996 and 2005 (Mato, Onwuchekwa and Aggo, 2009). While in Northern and Eastern Nigeria, a slightly lower rate of ICU admissions; 738 and 766 respectively were recorded (Onyekwulu and Anya 2015; Isamade, et al., 2007). Regarding the figures above, there are differences in the number of ICU admissions based on geographical location. These difference in in the number of admissions based on geographical locations has been attributed to several factors such as the nature of healthcare delivery system in Nigeria, cost of ICU care and limited availability of ICU services (Isamade, et al., 2007; Ilori and Kalu, 2012). Despite these, post critically ill patients are often discharged from the ICU to other areas of care, including surgical and medical units. Therefore, the period when a patient is deemed fit for ICU discharged and arrives on the ward is known as the transition period.

Transitions can be challenging as it involves a change in one’s circumstance, pattern or approach (Stelfox, et al., 2013). This can be challenging for the patient, their family members and the staff because they are expected to adapt to the changes that transition brings, which may be difficult (Haggstrom and Backstrom, 2014). Studies have shown that patients following a period of critical illness are prone to increased length of hospital stay, deterioration thereby requiring readmission to the ICU, high morbidity and mortality rate (Campos, et al., 2011; Ouanes, et al., 2012). Optimal management of patients following a period of critical illness is required to ensure that patients transitioning from ICU to the ward experience minimal risks throughout the process (Blackwood, et al., 2010). However, studies undertaken within the Nigerian healthcare setting adopted a retrospective approach and does not consider the views of healthcare professionals. The transition of patients from the ICU to a general ward has been identified as a vital component of nursing care because patients undergo various phases through the recovery process (Ramsay, et al., 2013). Therefore, exploring nurses’ views of patients transition from ICU to the ward could provide an understanding of transition processes in Nigeria and measures that can be adopted to maximise patient safety throughout the transition process.

Therefore, in this section, an overview of Nigeria, its healthcare delivery system and factors affecting healthcare delivery in Nigeria will be explored. A brief discussion about the evolution of critical care and modern reforms in the ICU will be done. Finally, an overview of the study setting will be provided.

## 2.2 Overview of Nigeria

Nigeria is situated in western Africa, with an estimated population of over 182 million people (National Population Commission, 2016). The main boundaries of Nigeria are Benin in the west, Cameroon in the east, Niger in the north, the Gulf of Guinea and Atlantic Ocean in the south (Babatola, 2015). The Federal Republic of Nigeria operates a three-tiered governance structure, including federal, state and local governments (Oyibocha, et al., 2014). Presently, there is one federal capital territory, 36 states and 774 local government areas in Nigeria (National Planning Commission, 2008). The local government is a subdivision of the state. However, the number of local government areas within a state varies considerably depending on the state (Oyibocha, et al., 2014). Nigeria is made of three ethnic groups; Igbo, Yoruba and Hausa with over 500 different languages spoken (Blench, 2012). The official language used in the Nigerian public and private sectors, including hospitals, is English (Aito, 2005). However, unofficial language such as pidgin is still commonly used in public and private settings (Osoba and Alebiosu, 2016). This gives Nigeria the characteristic feature of being socioculturally, economically and geographically diverse with different cultural beliefs.

## 2.3 Healthcare Delivery in Nigeria

The national health system in Nigeria operates three levels of care; primary, secondary and tertiary (Akande, 2004). As shown in figure 1.1 below, these strata of care are arranged in a hierarchical order and are linked to the three levels of government; local, state and federal that is currently adopted in Nigeria (Ademiluyi and Aluko-Arowolo, 2009). Other types of healthcare system that operates in Nigeria include Non-governmental organisations (NGOs) and private practitioners (Adeyemo, 2005). Although NGOs and private practitioners do not fall within any of the three levels of healthcare delivery system, the federal government regulates the policies of all the hospitals owned and managed by NGOs and private practitioners (Federal Ministry of Health, 2005).

**Figure 2.1 The National Health Service in Nigeria**

Nigerian Healthcare Service

State ministry of health:

General and central hospitals

Local government:

Primary healthcare centres

Federal ministry of health:

Teaching hospitals, Federal Medical Centres

NGOs and Private practice:

Hospitals, maternity centres

### 2.3.1 The Primary Healthcare System

The provision of primary healthcare (PHC), under the supervision of the local government, has a national healthcare policy that recommends it as the point of first contact for patients (Health Reform Foundation of Nigeria, 2007; Adebanjo and Oladeji, 2006). The goal of the PHC is to provide accessible healthcare services to patients with minor conditions such as fever, cold and malaria (Ademiluyi and Aluko-Arowolo, 2009). This may well explain why PHC centres are found in both rural and urban areas of the country. Currently, in Nigeria, there are 20,278 PHC centres (Omoruan, Bamidele and Philips, 2009). However, there is limited availability of healthcare personnel and medical facilities at the PHC level, which means they can only operate a referral system when they are faced with severe conditions that are beyond their capability (Health Reform Foundation of Nigeria, 2007; Abdulraheem, Olapipo and Amodu, 20012). PHC services ensure that everyone, irrespective of their geographical location and socioeconomic status, have access to basic healthcare services.

### 2.3.2. The Secondary Healthcare System

The secondary healthcare (SHC) system is governed by the state Ministry of Health (Menizibeya, 2011) and are responsible for providing healthcare services at this level (Ademiluyi and Aluko-Aruwolo, 2009). The hospitals under this category are the general and central hospitals owned by the state where they are located (Mabogunje, 2007). Presently, there are about 33,303 general and central hospitals in Nigeria (Omoruan, Bamidele and Philips, 2009). Patients treated at this level are those referred from the PHC with less complicated health conditions that could require invasive procedures and hospitalisation (Akande, 2004). Unlike the PHC, the SHC are commonly located in larger cities and are not usually found in remote areas of the country (Menizibeya, 2011). Also, the availability of infrastructures, medical personnel and equipment are more readily available in SHC than in the PHC (Ademiluyi and Aluko-Aruwolo, 2009). This may help to explain why SHC can provide a higher and more complex forms of medical services to patients than is available in the PHC. Nevertheless, patients that cannot be managed at this level of care are often referred to tertiary healthcare centres (Mabogunje, 2007). Therefore, the simplest differentiation is that SHC provides intermediate healthcare services to patients that cannot be managed in either the PHC or tertiary healthcare centres.

Despite functioning at the intermediate level to receive patient referrals from PHC centres and referring patients to tertiary healthcare institutions when necessary, some patients may present directly to the SHC centres through emergencies and self-referrals (Akande, 2004). This level of care is often described as the first level for providing specialist healthcare services.

### 2.3.3. The Tertiary Healthcare System

The federal government delivers healthcare services provided at the Tertiary Healthcare (THC) level through the Federal Ministry of Health (Ademiluyi and Aluko-Aruwolo, 2009). This is the highest level of healthcare service provided in Nigeria, and they are responsible for providing specialist services to patients with severe health conditions referred to SHC institutions (Menizibeya, 2011). THCs are limited in number with only 59 currently operating in Nigeria (Omoruan, Bamidele and Philips, 2009). A characteristic feature of the THC is that they are teaching hospitals and are affiliated with universities and colleges which means they have a large number of trainee students from different healthcare fields (Oyibocha, et al., 2014). Similar to SHC, patients with emergency healthcare conditions may present directly to THC centres without necessarily being referred from SHC centres (Abdulraheem, Olapipo and Amodu, 2012).

Presently in Nigeria, there are 23 teaching hospitals (Federal Ministry of Health Nigeria, 2017) and considering the Nigerian population which is considered inadequate to meet the high demand for tertiary healthcare services in the country. In order to compensate for the limited availability of THC centres, Federal Medical Centres (FMC) were developed with about 36 of them currently functioning in Nigeria (Oyibocha, et al., 2014; Federal Ministry of Health Nigeria, 2017). FMCs are similar to THC centres in that the federal government manages them through the Federal Ministry of Health (Menizibeya, 2011). THC and FMCs provides the highest level of healthcare services which includes critical care services (Federal Ministry of Health Nigeria, 2017), so ICUs and other specialist units are found there. However, the availability of healthcare equipment and personnel is limited, which then restricts the severity of healthcare services that can be provided in FMCs. Apart from the above-listed healthcare delivery pathways, healthcare services are also provided by non-governmental organisations and private practitioners.

### 2.3.4 Non-Governmental Organizations (NGOs) and Private Practitioners

In Nigeria, there are currently about 53,640 healthcare facilities, of which 38% and 10% are owned by private sectors and NGOs, respectively (Federal Ministry of Health, 2005). These healthcare delivery systems equally adopt a referral approach as patients can be referred to them from government hospitals and vice versa depending on the availability of resources to provide medical treatments (Ogunbekun, Ogunbekun and Orobaton, 1999). However, the federal government regulates the policies of all the hospitals owned and managed by NGOs and private practitioners (Federal Ministry of Health, 2005). The NGOs and private practitioners also collaborate with the SHC and THC institutions to provide healthcare services to patients (Adeyemo, 2005). These healthcare delivery systems have been appraised for their effectiveness in buffering the inadequacies of the public sectors in providing healthcare services (Menizibeya, 2011). Despite the availability of numerous healthcare facilities, Nigeria is still struggling to cope with providing healthcare services to all of its citizens (Oyibocha, et al., 2014). This has been attributed to several factors which are considered in greater depth in the following section.

## 2.4. Factors Affecting Healthcare Delivery in Nigeria

Being healthy and maintaining a state of good health is one of the fundamental human rights that every individual should be free to enjoy (Oyibocha, et al., 2014). The healthcare system of any country is responsible for providing healthcare services to meet the health needs of its citizens (Menizibeya, 2011). The Federal Republic of Nigeria is committed to ensuring that its citizens have access to healthcare facilities that will enable them to maintain a state of wellbeing through the provision of healthcare services at the three tiers of government (Mato, Onwuchekwa and Aggo, 2009). Nevertheless, healthcare services are faced with several problems which affect the delivery of quality healthcare to its citizens. In developing countries such as Nigeria, some of the problems healthcare services face includes poor referral systems, inadequate healthcare facilities, inadequate healthcare personnel and poor funding of health care services.

### 2.4.1. Poor Referral Systems

Healthcare delivery systems in Nigeria were designed to ensure that healthcare services are made available to every individual irrespective of their location (Ademiluyi and Aluko-Arowolo, 2009). This system has been criticised for being ineffective in delivering such mandate as most of the PHCs are non-functional due to poor management and underfunding (Oyibocha, et al., 2014). Also, the SHC and THC institutions are inadequate to cope with the growing population in Nigeria (Obansa and Orimisan, 2013). Furthermore, the referral system used among these tiers of healthcare are being misused. Akande's (2004) cross-sectional study revealed that THC institutions were overcrowded as only 12.3% of patients seen at the THC institution in Nigeria were referred from either the SHC or PHC. Most of the patients that were self-referred presented with minor ailment, which could be treated at either the PHC or SHC level (Akande, 2004). Although there is limited evidence based on the available literature to support or disprove this claim, given the large number of self-referrals identified in Akande’s (2004) study, questions should be asked about how this has happened. In addition, considering Obansa and Orimisan (2013) view regarding inability of SHC and THC to cope with the growing population of Nigeria, it can be argued that this can have a direct impact on the services provided at these level of care. These services, including critical care services (Federal Ministry of Health Nigeria, 2017) presumably would be diverted to manage minor conditions that could be easily managed at lower health care settings. Therefore, having appropriate referral systems in place might help to effectively manage patient flow through the healthcare delivery systems, thereby ensuring that healthcare services provided at every level in Nigeria is maximised.

### 2.4.2. Inadequate Healthcare Facilities

Provision of healthcare facilities is essential in ensuring that the provision of healthcare services to everyone within the country is achieved (Ademiluyi and Aluko-Arowolo, 2009). Nevertheless, there seems to be limited availability of basic healthcare facilities in Nigeria. The World Health Organisation (2006) identified that the majority of Nigerians live an average of ten miles away from clinics, hospitals and health centres, including PHC and SHC centres. The limited availability of power supply, hospital equipment and medications has resulted in people having to travel far in order to access medical treatment (Obansa and Orimisan, 2013). Furthermore, non-availability of essential equipment cuts across all the levels of healthcare delivery settings in Nigeria. For instance, Ilori and Kalu (2012), identified that there were no mechanical ventilators, infusion/syringe pumps and other devices for carrying out treatment and basic observations in a THC institution. This resulted in patient observations being performed manually and the inability of critically ill patients to be ventilated (Mato, Onwuchekwa and Aggo, 2009). In clinical settings that did have the necessary equipment, their use was hampered due to the absence of a constant electricity supply which is very important for efficient functioning of electrically powered medical appliances (Osanike, Akinyemi and Sanusi, 2012). Nevertheless, it is important to note that these studies (Mato, Onwuchekwa and Aggo, 2009; Ilorin and Kalu, 2012; Osanike, Akinyemi and Sanusi, 2012), adopted a retrospective approach so, some of the data reviewed may be incomplete which would impact on their findings. However, these findings are significant as they impact on critical care services provided to critically ill and post critically ill patients. Therefore, the need to provided essential healthcare facilities as well as availability of constant power supply to enable them function is important in enabling critical care services to be effectively delivered.

### 2.4.3. Inadequate Healthcare Personnel

The issue of inadequate healthcare personnel has attracted global attention. Globally, there is a shortage of about 7.2 million healthcare workers, and this is estimated to increase to 12.9 million by the year 2035 (WHO, 2013). In Nigeria, there are 148,129 registered nurses (Nursing and Midwifery Council of Nigeria, 2012) which, when compared to the current population of Nigeria (182 million), can be interpreted as a nurse-to-population ratio of approximately 1:1,229. This is inadequate to deliver safe patient care and ultimately puts patients at risk (National Population Commission, 2016). A descriptive survey conducted by Oyetunde and Ayeni (2014) in a tertiary hospital in Western Nigeria which involved 330 Nigerian registered nurses found a nurse to patient ratio of between1:2 and 1:15. Although this finding suggests that nurses could be adequately staffed to deliver safe patient care, the study failed to differentiate the different healthcare settings where these nurses worked which could account for the differences in the nurse-to-patient ratio.

Factors such as poor remuneration, poor working conditions and limited availability of career progression have been identified as a contributory factor to the high shortage of healthcare services in developing countries, including Nigeria (Oyibocha, et al., 2014). Similarly, healthcare budget and leadership affect the recruitment and retention of nurses in Nigeria as nurses are offered low salaries which deters them from accepting healthcare jobs nationally (Oyetunde and Ayeni, 2014). This has resulted in healthcare workers migrating to developed countries in search of lucrative jobs, thereby further worsening the shortage of healthcare workers in Nigeria and other developing nations (WHO, 2015). Although it is almost impossible to prevent healthcare workers from migrating to developed countries to work, the Nigerian government needs to address these causes in order to maximise the number of healthcare workers remaining in Nigeria.

### 2.4.4. Funding for Healthcare Services

Providing safe and efficient healthcare services is very expensive. Financing healthcare in Nigeria involves a combination of government allocations, out-of-pocket spending and social health contribution (Ademiluyi and Aluko-Arowolo, 2009). Nevertheless, Onwujekwe, et al. (2011) pointed out that despite having healthcare delivery services at the three tiers of government, majority of the total health expenditure (70%) is from patients (out-of-pocket expenditure). This trend has been attributed to inadequate healthcare financing resulting in weak sustainability by the Nigerian government. For instance, in 2003, government spending on healthcare was $288 million and $420 million for SHC and THC institutions, respectively (World Bank CRS Report, 2005). This allocation was inadequate to meet the health needs of the Nigerian population and led to a substantial financial burden being placed on patients and their families (Onwujekwe, et al., 2011).

In developed countries such as the UK, healthcare services are government-funded through the National Health Service, and in 2016, £191.7 billion was spent on healthcare (Office for National Statistics, 2018). Unlike in developing countries like Nigeria, healthcare spending in the UK accounts for 9.8% gross domestic production. This may well explain why individuals, rather than the government mainly fund healthcare services in Nigeria. The use of other healthcare facilities, such as the private hospitals are not uncommon in Nigeria to compensate for the government inability to provide sustainable healthcare to its citizens (Oyibocha, et al., 2014). Onwujekwe, Hanson and Uzochukwu (2012) identified that the majority of healthcare expenditures were made to private healthcare provider. Despite being funded by patients, private hospitals are two to three times more expensive than public hospitals (Obansa and Orimisan, 2013). Nevertheless, this is an option that is readily available in Nigeria and patients often use them.

In 2006, 91% of out-of-pocket healthcare expenditures were made by patients and their family members (WHO, 2006). Inequality in healthcare delivery services was demonstrated in Onwujekwe, Hanson and Uzochukwu’s (2012) survey conducted in four local government areas in southern Nigeria which involved 4873 households. This was evident in the study, as 98.8% of the study population identified that out-of-pocket payment was the predominant method used to pay for their healthcare services (Onwujekwe, Hanson and Uzochukwu, 2012).In a similar study carried out by Ewelukwa, Onoka and Onwujekwe (2013) in the same region but with slightly lower sample of 3071 participants, social inequality in accessing and utilising healthcare services exists as people from low socio-economic class struggled to pay for their healthcare services. This resulted in the use of coping mechanisms such as borrowing money, selling of assets and sometimes differing payments until further notice (Ewelukwa, Onoka and Onwujekwe, 2013). Although, these studies were conducted in a particular region of Nigeria and the study sample may not be representative of the entire Nigerian population, so generalising these findings nationally would not be ideal. Nevertheless, considering the trend identified in these studies where out-of-pocket payment for healthcare services is predominantly used, it can be argued that people from low socio-economic background could be discouraged to seek healthcare services because of their inability to cope with the high cost of healthcare services. This would have a knock-on effect on critical care services as there could be delay in patients seeking clinical help which would impact on their outcome. Therefore, these areas should be addressed to ensure that healthcare services are made available and are accessible to all who require it.

## 2.5 Evolution of Critical Care

The term critical care is used globally to refer to care provided to critically ill patients in the intensive and high dependency units as well as critically ill patients on the wards (DoH, 2000). Nevertheless, for this study, critical care is limited to critically ill patients on the ward and ICU. This section will address the evolution of ICU from the Nigerian perspective.

### 2.5.1. Evolution of ICU in Nigeria

ICUs in Nigeria, like other countries such as the United Kingdom, was developed in response to the need to provide progressive care and to be able to closely monitor critically ill patients (Crocker, 2007; Isamade, et al., 2007). The first ICU in Nigeria was established in 1973 at the University of Nigeria Teaching Hospital (UNTH) Enugu (Oguariri and Kabara, 2008). The initiative was born after the first successful cardiac surgery was carried out in Nigeria, which necessitated the need for complex and continuous monitoring of post-surgery patients (Okafor, 2009). Subsequently, ICUs in Nigeria have developed beyond admitting only post-surgical patients (Ebirim and Ojum, 2012) but are multidisciplinary units that admit patients from other units and wards within the hospital and sometimes from other hospitals (Isamade, et al., 2007). Although ICU has been in existence for over four decades in Nigeria, evidence still shows that intensive care services such as specialist care is still at infancy stage (Ebirim and Ojum, 2012; Okafor, 2009).

Unlike other developed countries, such as the UK, where ICUs are separate departments managed by ICU specialists including nurses (Intensive Care Society, 2009), ICUs in Nigeria are still managed by anaesthetists and non-specialist nurses with the full responsibility of providing care to critically ill patients (Isamade, et al., 2007). Staffing is an important issue which could have particular implications for patients transitioning from ICU to ward. Although, there has been an enormous emphasis on the importance of having specialist ICU personnel in improving the survival rates of ICU patients following a period of critical illness (Intensive Care Society, 2009). Unfortunately, in Nigeria, majority of the nurses working in critical care environments are not ICU specialists (Oguariri and Kabara, 2008) and, therefore, care for critically ill patients are provided by general nurses with or without ICU training or experience. Furthermore, ICUs in Nigeria are very few compared to the entire Nigerian population which is currently 182 million (National Population Commission, 2016) and are mainly found in urban areas where THC services are provided (Okafor, 2007). This implies that people in rural areas requiring specialist intensive care may not have access to such services.

ICUs in Nigeria has evolved over the years, but there are some variations in their sizes and capabilities depending on the location of the healthcare services available (Isamade, et al., 2007). Currently, there are different types of ICUs in Nigeria which include, general, neonatal, cardiothoracic, burns and trauma (Osinaike, Akinyemi and Sanusi, 2012). These ICUs differ significantly depending on the availability of professional staff and technological resources required to provide care to the critically ill. The widely available form of ICU in Nigeria is the general ICU which can provide care to patients with varying degree of clinical pathology (Okafor, 2009). Therefore, it is intended that this study will be conducted in general adult ICU in the southern part of Nigeria.

## 2.6. Overview of the Study Setting

This study was conducted in a THC located in the southern part of Nigeria. The hospital is a teaching hospital whose name will be concealed because of ethical issues. Therefore, for this study and throughout this thesis, the hospital will be referred to as Memorial Teaching Hospital (MTH). MTH was commissioned in 2010 by the former President of the Federal Republic of Nigeria, Dr Goodluck Jonathan, and since then has been delivering high-quality health care (Akaeze, 2014). MTH is a 180-bedded hospital that receives referrals from other hospital within the state and other neighbouring states, including Edo state, Bayelsa state, Rivers state and Anambra state (Akaeze, 2014). Patient admission into the hospital is through the accident and emergency unit, the out-patients department and sometimes directly to the ward, mainly when the patient is referred from another hospital.

There are 12 wards, a general ICU and a neonatal ICU. The wards are gender-specific; male and female patients are not admitted to the same ward. The wards are made up of an average of 30 beds. An estimate of 290 nurses work inwards on a rota shift basis. Unlike the wards, the adult ICU has ten beds, and any adult patient irrespective of their gender can be admitted to the ICU. The ICU has about 45 nurses who work on a shift basis. All the nurses are headed by the ward/unit matrons who take responsibility for the daily running of the wards/unit, which includes preparing the work rota and ensuring the delivery of safe patient care. Although ICU and ward nurses have a similar work pattern, there seems to be some slight difference in other aspects of their roles. The average nurse to patient ratio for ICU nurses is 1:2 while ward nurses is 1:10. Generally, in Nigeria, female, registered nurses are likely to be registered midwives as well while male nurse can take up other specialities such as psychiatric nursing (Oyetunde and Ayeni, 2014). This is normal as they are referred to as double qualified nurses which increases their job prospects (Oguariri and Kabara, 2008). This is also the case for nurses working in MTH as most of them were double qualified, but there were other qualifications such as accident and emergency, orthopaedic, psychiatric and ICU nurses.

The cost of providing ICU care is high globally and, unfortunately, in Nigeria, the financial burden rests on the patients and their families. Nevertheless, there is a striking difference in the cost of ICU care depending on the type of healthcare facility (private or public), the location of the centre, the patient’s length of ICU stay and patient’s response to treatment. For example, Falase, et al., (2013) identified that a 7-day ICU stay for a patient with open heart surgery costs approximately $1535 while Okafor (2009) stated that the daily cost of an ICU bed in another setting is $85 totalling $595 within seven days. In another study, Uche, et al. (2012) retrospective study conducted in southern Nigeria identified that the average cost per day in the ICU ranges between $125.85 and $184.51 depending on the severity of the patient’s condition. Despite the differences in the cost of providing ICU care, patients and their families are responsible for paying for their medical treatment. This poses a substantial financial burden for patients and their families and could complicate a patient’s recovery and impede treatment, resulting in an increased length of hospital stay. In other developed countries, including the UK, approximately £120.512bn is spent on healthcare, out of which £675 million is spent on critical care (NHS Digital, 2017). In addition, healthcare services in most developed countries are funded by the government, which removes the financial burden from the patients and their relatives. The differences in cost among developed and developing countries can be attributed to the fact that more sophisticated equipment and a higher standard of care are available in developed countries compared to developing countries.

The process of patient transition from ICU to the ward in Nigeria differs significantly and is dependent on the reason for the initial admission to the ICU. Mato, Onwuchekwa and Aggo (2009) identified that patients were mainly admitted to the ICUs in southern Nigeria for comfort and lack of bed spaces on the ward, especially if they can afford it. This then implies that patients could be discharged home directly from the ICU. This pattern differs from Poluyi, et al. (2016) study conducted in western Nigeria where patients were admitted into the ICU because they were critically ill so, required ICU care and were discharged to the ward following a period of critical illness. Despite the difference in admission and discharge patterns of ICU patients in Nigeria, this process differs significantly with what is obtainable in developed countries such as UK, USA, Australia and Canada where High Dependency Units (HDUs) are often used. For example, in the UK, HDUs are used as an intermediate level of care for patients transitioning from ICU to the ward and vice versa. These HDUs’ are often incorporated either into the ICU setting or within a ward setting (Prin, et al., 2015). Irrespective of where the HDU is located, it is often used for patients that require less support than in the ICU setting but a higher level of care than can be provided on the ward.

Nevertheless, in Nigeria, patients are transferred directly to the wards following a period of critical illness and the decision to discharge patients from ICU to the ward is often made by the attending physician. The transition process in Nigeria involves an interplay with patients, their families, nurses and other members of the healthcare team. Patients and their relative are informed about their treatment plan, and nurses must ensure that they are adequately prepared for the transition process. Nurses and other members of the healthcare team play an essential role throughout the transition process through liaising with ward nurses and other members of the healthcare team to ensure the transition process is effectively carried out. However, there is limited evidence within the Nigerian healthcare system, regarding the actual process of patient’s transition and measures adopted to ensure patient safety throughout the transitional care period. Therefore, having provided a brief overview of the background of the context where this research was conducted, it is intended that the researcher will have a better understanding. This is important as it could help the reader appreciate how the context of this research could vary from other context where transition from ICU to the ward takes place as well.

# Chapter Three

# LITERATURE REVIEW

## 3.1 Introduction

There has been a global emphasis on the concept of patient transition following a period of critical illness. This is because patient transition from Intensive Care Unit (ICU) to the ward following a period of critical illness can be challenging for the patient, for their family members and members of staff. (Haggstrom and Backstrom, 2014; Ramsay, et al., 2013; Chayober, et al., 2012; Mitcheal and Courtney, 2005). Therefore, in this chapter, an extensive review of the literature around the transition of patients from ICU to the ward will be carried out. Initially, an overview of the search strategy used to identify literature included in this study will be provided. This chapter will be discussed under themes based on the evidence available in the literature. Finally, this chapter will be concluded by providing a statement of research problems, research aim and objectives and a unique contribution to knowledge.

## 3.2 Search strategy

All the literature included in this critical review of the literature was identified through an electronic search using the university library website. The initial search was undertaken through the university website using the term ‘transition’ which yielded 8,093,451 hits. Having so many hits was undoubtedly too much to manage, so it was necessary to refine the search. The following databases Cumulative Index of Nursing and Allied Health literature Plus (CINAHL), Medical Literature Analysis and Retrieval System Online (MEDLINE), British Nursing Index (BNI), OVID, Allied and Alternative Medicine (AMED), SCOPUS, ScienceDirect, PsychINFO, Psychology and Behavioural sciences collection, PEDRO Physiotherapy Evidence Database and Google Scholar, Ethos and Cochrane Library were searched. These databases were searched because they contain health-related literature so, relevant literature around patients transition from ICU to the ward could be contained in them. The search was done independently to ensure that all the available literature around patient’s transition from ICU to the ward were reviewed. A combination of keywords such as transition, transfer, ICU, ward care, nurses, critical illness, critically ill, discharge practices, adverse events, Nigeria, Africa, Europe, America and patient outcome were used to search. Using these keywords were essential to ensure that all available evidence around patient’s transition from ICU to the ward were explored explicitly and included in the literature review. Boolean operators such as “AND” and “OR” were used to expand and restrict the search. Other restrictions used were date of publication as the search was limited to studies published from 2000 to date. This is because recent evidence would be beneficial in the review. However, key literature carried out earlier than the year 2000 were equally considered. Although, there were no restriction to geographical location as studies conducted in any part of the world was required to provide a broader scope of literature around patient transition from ICU to the ward. However, language limiter was used to ensure that only articles published in English were included in the study. This is because the researcher only understands English, so, would not be able to read and interpret literature written in other languages. These helped to streamline the search and reduce the hits to a manageable number. Further hand searching was used to identify other relevant literatures by scrutinising the references and bibliographies of literature.

Unlike a systematic review, the search for literature in this study was an ongoing process that began from the start of the study to the point of completion. Therefore, less attention was paid on the number of hits each search yielded. Nevertheless, the titles and abstracts of all the identified literature were scrutinised to gain an overview of its content, which helped to determine the suitability of studies to be included in this thesis. Critical analysis of the identified literature revealed existing knowledge as well as gaps in knowledge on the concept of patient transition from ICU to the ward with emphasis on nurses’ experiences. The themes discussed in this chapter emerged as important recurring themes when reviewing the literature. Thus, this section will be discussed under different themes.

## 3.3 Definition of Transition

Transition is an English word that depicts several meanings depending on the context that it is being applied. Hence, defining transition is important to provide its meaning within the context of patient’s transition from ICU to the ward. Transition is defined as the passage from one life stage, situation or status to another (Meleis, 2010). For this study, transition refers to the period of critical illness to a point where critical care support is no longer required. At any stage within the healthcare setting, patients often experience a period of transition starting from the time they become unwell until their condition improves and are ready to be discharged to another area of care (Haggstrom, Asplund and Kristiansen, 2009). This suggests that there are multiple periods of transition, including the period of transition from well to unwell. The process described as transition differs among individuals depending on their age, gender and personal characteristics (Enger and Andershed, 2017). Thus, the care of patients transitioning from ICU should be individualised depending on the patient’s health status and their ability to cope with the change in their level of care (Bunn, 2007). Within the ICU, patient transition is perceived as an everyday activity (Elliot, et al., 2011) and ICU nurses are charged with the responsibility to ensure that the process is safe for the patient and their relatives (Ramsay, et al., 2013). Throughout the critical care period, nurses are often involved in providing care either before, during or after transition of patients from ICU to the ward (Ludin, Arbon and Parker, 2013). When a transition process is initiated, the intensity of care provided to patients are reduced from one nurse to a patient or maximum of two patients in the ICU to a nurse to an average of eight patients in the ward (Stelfox, et al., 2015; Intensive Care Society, 2009). In Nigeria, Oyetunde and Ayeni (2014) descriptive survey identified a nurse to patient ratio of fifteen. However, this study did not indicate the clinical area where such exists so; it would be difficult to say if post critically ill patients were discharged to that ward or not. Nevertheless, any drop in the intensity of post critically ill patients could impact on their outcome therefore, patient discharges must be properly planned to ensure that their transition process is safe.

## 3.4 ICU Discharge Planning for ward Transition

Preparing patients adequately following a period of critical illness has been identified as an important aspect of patient care because these patients are at risk of deterioration requiring readmission to the ICU or even death (Ludin, Arbon and Parker, 2013). Also, post critically ill patients are faced with multiple transitions throughout the critical care period as they move from one level of care to another (Williams, et al., 2010). Among other measures, adequate ICU discharge planning for ward transition has been identified as a measure to ensure that each patient’s transition is safe and efficient, but its effectiveness depends on how well the process is coordinated (Cognet and Coyer, 2014). Discharge planning has been appraised for its effectiveness in optimising patient safety by ensuring that patients are not discharged too early or too late from the ICU (Haggstrom and Backstrom, 2014). Various studies have established that early discharge from the ICU is linked to an increased rate of readmission (Campbell, et al., 2008), higher patient care costs and increased patient mortality (Ouanes, et al., 2012). Furthermore, Garland and Connors’ (2013) observational cohort study identified a significant 30-day mortality not only if the patient leaves the ICU too early but also if a patient leaves too late due to any form of transfer delay. This echoes the need for appropriate timing of each patients discharged from the ICU as poor timing of discharges could impact on patient outcome (St-Louis and Brault, 2011). Aside timing of ICU discharges, out-of-hours discharge from the ICU has been reported in several studies as a factor that increases patients mortality and readmission to the ICU (Laupland, et al., 2011; Pilcher, et al., 2007; Singh, et al., 2010; Gantner, et al., 2014). Santamaria, et al. (2015), in their observational study, found a significant difference in this trend as there was no substantial evidence to support ICU out-of-hours discharge and patient’s mortality. Nevertheless, the difference in the findings can be attributed to the difference in the study methodology as the former adopted a retrospective approach

Despite the differences in opinion, providing a safe and robust care post transfer of patients from ICU to the ward is essential. Ranzani, et al. (2012), suggested that discharge planning may need to commence while the patient is still in intensive care and should involve ward nurses to enable them to prepare adequately to receive the patient. This is essential in facilitating the transition process as specific patient needs that require adjustment of ward facilities to accommodate such as changing equipment, medication times and other usual ward routines are considered (St-Louis and Brault, 2011). Furthermore, coordinating ICU discharges effectively has been linked to positive patient outcomes following a period of critical illness. According to Lee, et al. (2009) observational study conducted in Korea, an improved nursing assessment by ward nurses contributed to the reduced number of ICU readmissions within three days. This echoes the role of ward nurses involvement in discharge planning as it ensures that they possess the skills required to identify and escalate deteriorating patients promptly. In other words, ward nurses involvement in transitional care should not be ignored at any stage of the transitional care process. In contrast, Haggstrom, Asplund and Kristiansen, (2012) stated that because ward nurses are charged with the responsibility of providing care to other ward patients as well as post ICU discharged patients, it can be difficult to maximise patients care and identify deteriorating patients. Consequently, patients’ care could be jeopardised, resulting in delayed assessment, diagnosis and escalation of deteriorating patients (Field, Prinjha and Rowan, 2008; Quirke, Coombs and McEldowney, 2011). Nevertheless, evidence shows that ICU nurses are mainly concerned with making patients comfortable and attending to their immediate clinical needs rather than focusing on planned activities that will promote safe patient transition to the ward (Cognet and Coyer, 2014). Owing to this, discharge planning has been advocated as an important practice that can promote patient care by strengthening the process required to deliver a smooth patient transition post-critical illness (Haggstrom and Backstrom, 2014). Therefore, ward nurses and ICU nurses should be actively involved, and their input considered in the transitional care process in order to minimise disruption and optimise patient care.

Discharge planning is an individualised process often implemented by multidisciplinary teams that provide continuity of patient care by incorporating plans that allows patient’s needs to be met post-discharge (Chayober, et al., 2002; St-Loius and Brault, 2011). Therefore, a holistic approach centred on patients’ physical and psychological needs should be adopted when planning each patient’s discharge from the ICU (Cognet and Coyer, 2014). This can be achieved through patient assessment, planning, implementation and evaluation of patients’ care (Chayober, et al., 2002; Ludin, Arbon and Parker, 2013). In essence, these stages have similar phases as the nursing process, which include assessment, planning, implementation and evaluation (Williams, et al., 2010). It could be predicted that proper implementation of patient care using this model might maximise patient safety by ensuring that each patient’s needs are identified pre-transition and adequate plans put in place to ensure that these needs are met post-discharge from the ICU. Findings from these literatures, suggests that discharge planning should be encouraged as it provides a link between the care provided before and after ICU discharge, thereby promoting continuity of patient care following a period of critical illness.

### 3.4.1 Importance of Discharge Planning to Transitional Care

The role of discharge planning in transitional care following a period of critical illness cannot be overemphasised. According to Haggstrom and Backstrom (2014), discharge planning improved the patient’s and their family’s experiences as it allowed time for initial contact with the ward staff before patient transition. Although it would be good if this were to happen, this is not always the case. Sometimes transitions are planned without these pre-transfer interactions between the ICU staff and the ward staff (Campos, et al., 2011), especially when the transfer happens quickly to make a bed available for an unexpected admission (Wu and Coyer, 2007). Furthermore, discharge planning provides patients and their families with all the relevant information about patient’s treatment plans, including referral to other departments for treatment and rehabilitation (St-Louis and Brault, 2011). In addition, it ensures that necessary information about the patient’s condition is provided to the ward staff which in turn improves ward nurses’, patients’ and their family’s understanding of the transition process (Chayober, et al., 2008). This implies that discharge planning promotes a positive approach to continuity of care by incorporating patients’ critically ill state with anticipated needs at the convalescence state when the patient is eventually discharged from the ICU. Therefore, discharge planning should begin early following admission to the ICU in order to allow time to fit in all planned care packages for the patient.

Discharge planning has been identified as an essential measure that assesses patients readiness for ICU discharge, especially when there are high demands for critical care services (Stelfox, et al., 2015). However, the demand for critical care services are often abrupt, and poor discharge planning can hamper patient safety and delay recovery. St-Louis and Brault, (2011) attributes the cause of adverse events following a period of critical illness to the fact that unplanned discharges can lead to non-preparedness of patients and their families, ward nurses and other members of the multidisciplinary team. In another study, unplanned discharges accounted for increased rate of patient mortality and morbidity as well as increased length of hospital stay (Wu and Coyer, 2007). Contrary to this view, Campos, et al. (2011) retrospective study conducted in Spain revealed that there is no correlation between inappropriate discharges and mortality rate as only 202 patients died post ICU discharge out of a total of 5238 patients admitted to the ICU. They based their findings on the fact that some deaths following ICU discharge were expected as patients often deviate from expected normal functioning post ICU discharge (Campos, et al., 2011). Nurses perceive that patients’ acuity and the uncertainty of critically ill patients’ prognosis remains a significant challenge in determining the effectiveness of discharge planning (Chayober, et al., 2004).

Similarly, Ouanes, et al. (2012) retrospective analysis of four ICUs in France found that out of the 3462 patients included in the study, a total of 224 patients either died or were readmitted to the ICU. These discharges were unplanned as most of them occurred at night, which was attributed to the high demand for ICU beds (Ouanes, et al., 2012). Although Ouanes, et al. (2012) study attributed the readmission and mortality that occurred post ICU discharge to unplanned discharges, Campos, et al. (2011) study failed to identify if the discharges that occurred in their study were planned or unplanned. Therefore, it can be said that the post ICU mortality rate identified by Campos, et al. (2011) study cannot be attributed to unplanned discharges. However, considering the mortality and readmission rate identified in Ouanes, et al. (2012) study, it can be argued that having pre-planned discharges could improve patient mortality and prevent ICU readmission thereby ensuring that patient safety is maintained.

Certain measures, such as the use of discharge protocols, have been identified as a tool utilised in assisting discharge planning. In developed countries such as the UK, patients are assessed and classified into a level of care ranging from 0-3 depending on their need for organ support and physiological health status (Baruch and Messer, 2012). ICU discharges are indicated when the patient is considered fit by the managing team, and the need for levels 2 and 3 care would no longer be beneficial to the patient thereby ensuring that ICU beds are made available for critically ill patients who require it (Critical Care Northern Ireland, 2009). In developing countries, including Nigeria, the absence of discharge protocols have been attributed to the cause of ICU misuse (Osinaike, Akinyemi and Sanusi, 2012; Carter, 2008) resulting in patients being left to stay in the ICU and discharged directly from the ICU to their own homes (Okafor and Aniebue, 2004). This is evident in Isamade, et al. (2007) and Mato, Onwuchekwa and Aggo (2009) retrospective studies which revealed that 8.1% and 24.3% respectively were discharged home from the ICU because of the liberal admission process that allows patients to be admitted to the ICU simply because they can afford to pay for ICU beds. Admitting patients to the ICU liberally could have impacted on the patient’s transition back home directly as discharging them from ICU to the ward would not be necessary because there was no indication for ICU admission when they were admitted to the ICU. This is evident as patients were left in the ICU until the point when they were medically fit to be discharged home as there was no discharge protocol to guide the decision for patients to be discharged (Isamade, et al., 2007; Mato, Onwuchekwa and Aggo 2009). Unlike in developed countries where patients are assessed and discharged based on their need for organ support and the level of care they require (Baruch and Messer, 2012; Critical Care Northern Ireland, 2009), critically ill patients in Nigeria are assessed based on affordability of critical care services (Osinaike, Akinyemi and Sanusi, 2012). Financial resource is a significant challenge that affects the effective delivery of critical care services in Nigeria (Onyekwulu and Anya, 2015) mainly because patients are responsible for the cost of their medical treatments (Uche, et al., 2012). This may well justify Mato, Onwuchekwa and Aggo (2009) findings where ICU beds were mostly occupied by patients who could afford to pay for it rather than those that required critical care services. Considering these findings, it can be argued that having a discharge protocol could facilitate the discharge of patients from ICU to the ward, thereby making ICU beds available to critically ill patients who actually require it. However, the need to address the cost of critical care services paid by patients should be addressed in order for the implementation of discharge protocol to be effective.

Regardless of having discharge planning before ICU discharge, there has been a growing concern about the ward nurses’ ability to cope with post critically ill patients discharged from ICU to the ward (Haggstrom, Asplund and Kristiansen, 2012). The high demand for critical care beds and high cost of critical care have led to patients often being discharged to the ward in a more dependent state (Ouanes, et al., 2012). These drivers for establishing discharge planning in Nigeria is not comparable with international ones as the high demand for critical care beds required for very sick patients is prioritised in developed countries rather than affordability of critical care bed by patients in Nigeria. However, these among other factors impacts on ward nurses’ ability to cope with patient discharged to ward-based care and deteriorating patients on the ward that require the ICU (Cognet and Coyer, 2014). According to NICE (2007), the inability of ward nurses to meet the health needs of patients could result in an increased risk of deterioration with possible mortality. Similarly, the rate of readmission to the ICU could be significantly increased with poor prognosis (Campbell, et al., 2008). This, in addition to other factors mentioned earlier, could impact on the cost of ICU treatment and patients’ length of hospital stay. Considering these factors, it can be argued that having discharge planning in place within the ICU can impact positively on the patient. However, because of the limited published evidence of patients transition within Nigeria critical care settings, it is difficult to establish the discharge planning practices that exists in Nigeria ICUs.

### 3.4.2 Facilitating Discharge Planning in Transitional Care

An approach to facilitating effective discharge from ICU to the ward is through active involvement of ward and ICU nurses. According to the qualitative study conducted by Haggstrom, Asplund and Kristiansen (2009) involving ICU and ward nurses, ward nurses were found to be 'struggling with a gap' between the care provided in the ICU and on the ward thereby resulting in a stressful and unsafe discharge practices. Ward nurses expressed the need for enhanced collaboration with ICU nurses in order to improve patients-centeredness and to provide individualised patient care. At the same time, ICU nurses were unsure about ward nurses’ competence in caring for post critically ill patients discharged to the ward (Haggstrom, Asplund and Kristiansen, 2009). In a similar study conducted by Enger and Andershed (2017) which involved only ward nurses, revealed that ward nurses lacked competence in providing transitional care to post critically ill patients which they described as challenging. Although, Haggstrom, Asplund and Kristiansen (2009) and Enger and Andershed (2017) findings seems similar in that competence was a reoccurring factors that affects post-critically ill patients transition from ICU to the ward, its is essential to note that these studies adopted a qualitative approach so, generalizability of their findings could be difficult. Also, Enger and Andershed (2017) study only included ward nurses which is not reflective of ICU nurses view. Nevertheless, competence has been highlighted as one of the core values that underpin care; thus, nurses must be able to identify patients’ health needs as well as possess the appropriate skill and knowledge to deliver effective care to the patient (NMC, 2012). Sandberg (2006) highlighted that competence in care cannot be achieved through an isolated approach within a team. So, team members must collaborate and be aware that every member of the team possesses adequate competencies in their area of speciality.

Furthermore, studies have shown that ward nurses are not usually involved in the discharge planning process with ICU nurses taking sole responsibility for identifying patients’ needs and preparing patients for transfer (Chayober, et al. 2002; Haggstrom, Asplund and Kriatiansen, 2009). A comparative descriptive study conducted in USA involving ICU nurses identified that ICU discharge planning is a complex process which is often given a lower priority due to difference in reason for patients, pre and current health status (Holland, et al., 2012). In addition, ICU discharge planning are not often commenced early in the ICU, and ward nurses are not usually involved in the discharge planning process (Stelfox, et al., 2015). Ward nurses are then left out during the discharge planning process, which may well explain the frustration felt by ward nurses during patient transfer from ICU to the ward (Sandberg, 2006). Involving ward nurses during the discharge planning phase before patient transfer has been highlighted as a positive approach to reducing patients and their family’s transfer anxiety (Watts, Gardner and Pierson, 2005). This is important as ward nurses would be aware of patient treatment plans post ICU discharge (Haggstrom, Asplund and Kristiansen, 2009; Whittaker and Ball, 2000). Also, involving ward nurses during the discharge planning process may well improve ward nurses competencies in providing care for post critically ill patients and their families through collaboration with ICU nurses to ensure that necessary arrangements are made to meet patients’ needs on the ward. Similarly, when ward nurses take early responsibility in planning a patients’ transfer to the ward, it provides an avenue for ward nurses to establish initial contact with the patient (St-Louis and Brault, 2011). Thereby enabling them to gain more information about the patient which will, in turn, improve patients care post ICU discharge (Whittaker and Ball, 2000). This is pertinent as patients and their relatives often exhibit feelings of anxiety, abandonment and depression following ward transfer (Chayober, et al., 2005; Wu and Coyer, 2007) which adds to their difficulty in adapting to the ward environment and accepting the care provided on the ward (Ramsay, et al., 2013). So, having initial contact with patients and their families could reduce their anxiety and the psychological consequences of transfer stress. In light of the above, it can be inferred that if ward nurses play a role in the discharge planning process, their understanding of the patient’s condition and the nurse-patient relationship between them could be strengthened which will in turn impact positively on the patient and their families’ post-critical illness. However, there seems to be a dearth of knowledge about ward nurses’ willingness to participate in discharge planning prior to patient discharge from ICU. This is important to promote continuity of patients care post critical care period and ward nurses are responsible for ensuring safe patient care on the ward post ICU discharge. So, it is worth exploring ward nurses’ perceptions of being involved in discharge planning and its effect on patients’ outcome post ICU discharge.

### 3.4.3 Factors Affecting the Implementation of Discharge Planning

Various studies have identified that discharge planning is often not implemented adequately among nurses (Chayober, et al., 2002). ICU nurses often feel hesitant about implementing discharge planning programmes despite emphasis on the role of proper planning in improving the quality of life of post critically ill patients (Bergen, 2005). Quality of life following a period of critical illness has been highlighted as an area that post critically ill patients often struggle to cope with which results in poor physical functioning (Sandberg, 2006; Garland and Conors, 2013). In an exploratory, descriptive study conducted by Watts, Gardner and Pierson (2005) in a Victorian hospital in Australia, involving five hundred and two critical care nurses with a response rate of 43.4%, ICU nurses were unable to define discharge planning as it pertains to critical care. They believed that discharge planning is not a priority in the ICU and should only commence after the patient has been discharged to the ward (Watts, Gardner and Pierson, 2005). Similarly, Cognet and Coyer, (2014), identified that ICU nurses often overlook discharge planning despite evidence that majority of patients discharged from the ICU would require discharge planning to promote optimum utilisation of the care they will receive on the ward. Often, ICU nurses are concerned with engaging patients in a limited range of activities that prepare the patient for transfer to another area of care within the clinical setting (Williams, et al., 2010). Such activities include; removal of monitoring and supporting devices such as ventilators, ensuring safe transfer from ICU to the ward and making bed spaces available for critically ill patients who require them (Haggstrom and Backstrom, 2014). This may well explain why ICU nurses seldom engage patients in lifestyle modification activities and rehabilitation programmes (Bergen, 2005) that could improve patients’ quality of life when they are eventually discharged home.

Discharge planning in this context is regarded as the responsibility of ICU nurses rather than ward nurses so, plans to discharge patients from the ICU is usually initiated by ICU nurses (Chayober, et al., 2004). Although there has been no specific component of discharge planning from ICU nurses’ perspective, discharge planning encompasses assessment, planning, implementation and evaluation (Williams, et al., 2010). Nevertheless, ICU nurses acknowledged that discharge planning is underutilised in most critical care settings (Watts, Gardner and Pierson, 2005; Cognet and Coyer, 2014) which may have severe consequences on the patient.

Several reasons have been attributed to poor implementation of discharge planning in ICU practice. These includes; uncertainty about patient outcomes, high demand for ICU beds, the nature of nurse’s role in the ICU, time, high cost of intensive care treatment, lack of knowledge/skill and absence of discharge planning policies in the ICU (Chayober, et al., 2005; Bergen, 2005; Quirke, Coombs and McEldowney, 2011). These barriers can be broadly divided into organisational and patients factors. However, Haggstrom and Backstrom, (2014) argued that while some organisational factors can be manipulated to improve discharge planning, most patient factors cannot be controlled. For instance, a patient’s clinical condition and level of consciousness may affect the uncertainty of discharge planning. This possibly explains why most ICU nurses advocate for continuous patient observation and intervention until the patient becomes stable and before the decision to implement discharge planning is reached (Chayober, et al., 2002). Organisational barriers such as lack of time, possible skill/knowledge deficits and the absence of ICU discharge guidelines can be addressed if healthcare institutions acknowledge the importance of ICU discharge planning in providing safe transition from ICU to the ward. This will ultimately enhance the healthcare institutions commitment in providing staff training and ICU discharge guidelines which can be factored into ICU nurses’ routines to ensure that ICU nurses have adequate time to plan and implement discharge plans. Although these seem practicable, it is worth exploring if organisational interventions on ICU discharge planning have any impact on ICU nurses’ attitude and perception towards discharge planning.

## 3.5 Optimizing Patients Physiological Function Pre-transition

There are sophisticated machines in the ICU such as dialysis machines, ventilators, multi-parameter monitors, fluid pumps and x-ray machines (Haggstrom, Asplund and Kristiansen, 2009) which ease the working environment for staff, aids precise and timely monitoring of the critically ill patient (Tullock, et al., 2007; Haggstrom and Backstrom, 2014). These machines are adapted to each patient depending on their health needs in order to achieve a positive outcome which all involved aim to achieve. The introduction and use of medical technologies within the ICU has been acknowledged as a significant step that enhances the treatment of critically ill patients (Haggstrom, Asplund and Kristiansen, 2012). Nurses and other ICU staff often get used to using medical technologies because of its convenience in monitoring patients (St-Louis and Brault, 2011). However, studies have shown that prolonged use of technologies can be harmful to patients as it can interfere with the transition process (Blackwood, et al., 2010; Chayober, et al., 2008). Mechanical ventilators are commonly used in the ICU to ensure that patients with acute respiratory failure maintain an average respiratory rate (Fialkow, et al., 2016). Despite the importance of mechanical ventilation in maintaining patients respiration, its use has been associated with a high mortality rate. Rose, et al. (2008), prospective cohort study carried out within a three month period indicated that out of the 474 patients admitted into the ICU 67% (319) of them required some form of mechanical ventilation with a mortality rate of 12.5%. Although the mortality rate seems minimal, considering that this occurred over a three month period, summation of this figure over a long period could amount to a high mortality rate. This is evident in Fialkow, et al. (2016) cohort study conducted in Brazil where 51% of deaths occurred among 1,115 patients admitted into the ICU that required mechanical ventilation within a three year period. However, based on the findings of these studies, factors that contributed to ventilated patients mortality is unclear. Nevertheless, considering the risk of mortality following mechanical ventilation, it can be implied that optimising patients vital function is essential prior to ICU discharge to enable them to have independence on mechanical ventilation.

Studies have demonstrated that a possible way for assessing patients’ ability to cope without medical technology is by assessing patients’ physiological parameters with particular emphasis on breathing and circulation (Maclntyre, 2004; McLaughlin, et al., 2007) as well as liaising with the multidisciplinary team (Rose, et al., 2011). A combination of these does not only provide an individualised approach to patient care, but also serves as a tool for assessing patients’ stability to be weaned from technological support without further complications (Chayober, et al., 2008). This suggests that there is a link between the critical care environment and the sophisticated medical equipment in supporting the vital functioning of the critically ill. However, Crocker and Timmons, (2008), stated that the link between weaning patients off technology and the success of the patient’s transfer to the ward is important as it impacts on patient’s outcome post-critical illness. This is vital as critically ill patients are nursed in critical care settings with multiple organ support so, their ability to cope on the ward is questioned (Kydonaki, Huby and Tocher, 2013). Therefore, adequate measures could be employed to ensure that patients vital functioning are supported pre-transition and can cope in the ward post-transition.

Furthermore, Cognet and Coyer, (2014) identified that another way to achieve this quality standard of care is by adopting a patient-centred approach to care by ensuring that patients care is individualised based on their needs. Nevertheless, certain circumstances warrant decision making by medical and nursing personnel to be in the best interest of patients without direct involvement with the patient (Chayober, et al., 2008). For instance, when discharging a patient from the ICU, patients have little or no control over the decision-making process primarily because the decision is based on specific clinical manifestations that the patient may be presenting (Kydonaki, Huby and Tocher, 2013). Although moving from ICU to the ward is viewed as a positive step in a patient’s recovery (Haggstrom and Backstrom, 2014), the focus for making this vital decision is based on clinical experience, strong physiological data and evidence (Chayober, et al., 2005; Stelfox, et al., 2013). Thus, nurses play a significant role in ensuring that patients experience a safe transition to the ward by utilising clinical skills during assessment, monitoring, observation and implementation of patient care (RCN, 2009; Williams, et al., 2010). Similarly, nurses need to be competent in the use of technology in supporting patients care and have knowledge of patients’ physiology as well (Navalesi, et al., 2014). This implies that patients vital functioning should be stabilised and assessed before the decision to transfer them out of the ICU is reached.

McLaughlin, et al. (2007), stated that ideally, patients should have a period of time without technological support before they leave the ICU to help them acclimatise to the less-technological ward environment. This is pertinent in helping patients and their relatives to be less dependent on the ICU and associated technology. Although various literature has demonstrated that there are inherent problems such as deterioration, readmission or even death associated with failure to optimise patients vital functions prior to patient discharge from the ICU (Maclntyre, 2004; Rumpke and Zimmerman, 2010; Chayober, et al., 2008), it is worth exploring nurses experiences to ascertain how optimising patients vital functioning impacts on patients outcome post-discharge from the ICU.

### 3.5.1 Factors Affecting Weaning off Medical Support Devices

In recent times, studies have shown that nurses and other ICU staff members acknowledge the importance of reducing technological support and nursing care prior to discharge from ICU (Crocker and Timmons, 2008). However, they described it as an ambiguous and complex process which requires a lot of clinical skill and experience (Haggstrom, Asplund and Kristiansen, 2012). The need to inform patients and their family members about the importance of adjusting their care pre-transfer has been highlighted as this would help them to meet the level of care provided on the ward (Stelfox, et al., 2013; Navalesi, et al., 2014). For instance, reducing patients’ observation from having full multi-parameter monitoring to basic vital signs observation will help patients prepare for upcoming care on the ward. Nevertheless, other studies have indicated that several factors including patients’ acuity, response to treatment and time are factors that could impact on the patient’s transitional care (Bergen, 2005; Chayober, et al., 2005). This was observed in a study conducted by Sandoval-Moreno and Díaz-Henao (2018) where non-modifiable factors such as patient’s respiratory compromise and patients requiring tracheostomy contributed to 95% and 82% respectively of failed mechanical ventilation weaning. These factors have a significant impact on the patient’s outcome and the success of mechanical ventilation weaning. So, it is vital to acknowledge the importance of reducing mechanical support for patients while the patient is still in the ICU.

Another factor that contributes to the ambiguity of weaning patients from technological support in the ICU is that nurses and other ICU staff are often constrained by the meaning of an ICU. Nurses believed that if a patients’ vital functioning is stable enough and does not require monitoring, they would be no more need for the patient to be in intensive care (Haggstrom, Asplund and Kristiansen, 2012). In another study, weaning was construed as a symbol of critical illness as less attention was given to patients that were being weaned off mechanical ventilation (Crocker and Timmons, 2008). Although these concerns seem logical, the need to wean patients off the ICU environment is essential in promoting patients’ recovery and independence on the mechanical support used in the ICU (Blackwood, et al., 2010). Also, considering that patients being weaned could be at risk of deterioration, weaning should not be attended with less importance as identified by Crocker and Timmons (2008) study. However, the absence of a unified weaning guideline has been identified as the reason why weaning patients off mechanical support is often not practised in most acute care settings (Rose, et al., 2014). In Nigeria, the culture of weaning patients off medical devices is not evident in the literature primarily because ICU beds are costly, and patients are responsible for the cost of their treatment (Okafor, 2009). In addition, the abuse of ICU bed by using it for patients who do not have a clinical indication for ICU but are often admitted to the ICU because they can afford to pay for ICU bed (Osinaike, Akinyemi and Sanusi, 2012). Although these studies carried out in Nigeria adopted a retrospective approach which could impact on the study findings however, considering that other studies such as Rose, et al., 2014; Haggstrom, Asplund and Kristiansen, 2012; Blackwood, et al., 2010; Crocker and Timmons, 2008 conducted in other countries equally identified problems associated to weaning. It can be argued that adopting ventilation weaning protocols could be beneficial to patients.

Developing and adopting a general guideline to weaning patients off technological support prior to ICU discharge is likely to provide a standard of weaning for nurses and other ICU staff (Crocker and Timmons, 2008). This is imperative as studies have demonstrated that discontinuing the use of mechanical ventilation too early can lead to the patient developing respiratory muscle fatigue which in turn may lead to respiratory failure and extubating patients late can result to ventilator-induced pulmonary injury (Maclntyre, 2004; Rumpke and Zimmerman, 2010). Also, Thomas and McGrath (2009) two years review of reports submitted to UK national patient safety agency revealed a high incidence of endotracheal or tracheostomy tube displacement used for ventilated patients as 1085 incidents occurred within the two-year period due to nurses distractions and staff shortages resulting in reduced level of patients monitoring. Findings from this result shows that babies were included as well as 28.8% of such cases occurred in children (Thomas and McGrath, 2009). Furthermore, unplanned weaning occurred at night in the absences of nurses and most of the critically ill patients required re-intubation to avoid complications thereby impacting on patients’ safety and the cost of ICU care (Bouza, et al., 2007). These indicate the need to effectively plan patients weaning before initiating extubation as this could impact on patients outcome thereby compromising patient safety.

In contrast, Kohne and Hardcastle (2018) two-year review of medical records of patients admitted to a trauma ICU in South Africa showed that extubations could be accidental as 30% accidental self-extubations and 70% of unplanned self-intubation were found within the two-year period. These could impact on patient’s outcome and compromise patient safety as they could require urgent reintubation. However, considering that Kohne and Hardcastle (2018) did not indicate if the accidental extubations occurred among patients, there were being weaned off mechanical ventilation in preparation for ICU transition, applying these findings to the context of patient’s transition from ICU to the ward would be difficult. Based on Thomas and McGrath (2009) findings, it can be said that patient’s extubation from mechanical ventilator is key to promoting patients’ safety pre and post-discharge from the ICU as patients and their family members would have adjusted to the reduced level of care and monitoring. Nevertheless, it is pertinent to strike a proper balance in timing patients’ ability to cope without medical technology pre-transfer to the ward to avoid early or late weaning-off which could inflict more pain or worsen patient’s condition.

Timing of extubations from mechanical ventilation has been highlighted as a measure to promote patient safety as it allows time to adjust from a state of full mechanical support to the state where they would not require mechanical support (Haggstrom and Backstrom, 2014). Nevertheless, evidence shows that weaning is not often practised globally by nurses and in the countries where it is practised, less importance is attached to allocating sufficient time when weaning should be initiated. According to an ethnographic study conducted by Crocker and Timmons (2008) in a large teaching hospital in England, nurses perceived weaning the patient from a respiratory ventilator as a less priority task capable of disrupting their routine activities. This is evident in the study as nurses usually left weaning the patient from the ventilator until there was sufficient time to continually monitor the patient’s ability to cope without the ventilator. Patient-centred and continuous approach to weaning has been identified as a major component required to effectively wean a patient off the ventilator (Manley, et al., 2005). Particular attention should be paid to the individual patients’ response during weaning because of the difference in individual makeup (Egerod, 2003). This probably explains why patients were sometimes transferred to the ward without having the opportunity to be weaned when nurses were too busy to initiate the weaning process (Crocker and Timmons, 2008).

Contrary to the practice in England, Haggstrom, Asplund and Kristiansen (2012) qualitative study conducted in Sweden revealed that Swedish nurses identified weaning patients from mechanical ventilator as a necessity and should be done before patients are transferred to ward-based care. However, there was lack of continuity, and often patients were left on mechanical supports such as the ventilator until the last minute when they are ready to be transferred to the ward (Wilkstrom and Larson, 2004). Swedish nurses justified their action as a means of prioritising control as they were uncertain about their role in weaning patients from the ventilator. Critically ill patients need to be prepared for the type of environment they would expect to meet on the ward, and this includes the ward environment, nursing care and absence of sophisticated technological support. In Australia, Chayober, et al. (2008), attributed the high level of adverse events experienced by patients 72 hours post ICU discharge to the high level of nursing care patients received during ICU admission up until discharge. Adverse events generally refer to accidental injury caused by healthcare management rather than the underlying disease (Haggstrom and Backstrom, 2014). In addition to readmission rates, healthcare delivery factors were considered as a contributing factor to the incidence of adverse events following a period of critical illness. Although the study did not highlight what it meant by healthcare delivery factors, it can be inferred that failure to gradually expose patients to the changing care environment are management factors that can enhance a patient’s dependence on the ICU environment. This was illustrated in an earlier study conducted by McLaughlin, et al. (2007), where most patients developed adverse events related to fluid overload due to a continuous renal replacement therapy while in ICU that was stopped abruptly on the day of discharge. Therefore, there is a tendency that if patients were gradually weaned off renal replacement therapy, the probability of developing an adverse event post-discharge from the ICU would be low as patients vital functioning, and ability to cope would have been established. However, because McLaughlin, et al. (2007) study only focused on observational evidence from patients alone and nurses’ role in optimising patient’s vital functioning pre-transfer from the ICU was not expressed in the study. It can be argued that exploring nurses role in optimising patients vital functioning before ICU discharge could yield different outcome.

A major concern raised by ICU nurses is the absence of a weaning protocol or guidelines for patients who are being prepared for transfer to the ward (Crocker and Timmons, 2008; Haggstrom, Asplund and Kristiansen, 2012). The use of a weaning protocol such as Spontaneous Breathing Trial (SBT) has been identified as a positive step in discontinuing the use of mechanical ventilation among critically ill patients (Blackwood, et al., 2010). However, the effectiveness of its use is largely dependent on several factors including the organisational culture of the ICU, interprofessional collaboration and proper assessment of each patient’s ability to cope without the help of mechanical ventilator (Maclntyre, 2004; Rose, et al., 2011; Rumpke and Zimmerman, 2010). Studies have demonstrated that difference in ICU set-ups and their transfer procedures impact on the effectiveness of weaning patients from mechanical support. For instance, when patients are transferred from ICU to High Dependency Units (HDU) or step-down units, it reduces the relocation stress and insecurity experienced by patients and their relatives as this helps them to be gradually introduced to the changing environment and prepare them for the ward environment (Beard, 2005; Tullock, et al., 2007; Stacy, 2011). In addition, a high mortality rate of 3.2% and readmission rate of 33.4% within 24 hours was recorded in a surgical unit where patients were discharged directly to the ward without the use of HDUs or step-down units or an attempt to wean patients from the use of technological support (Ghosh, et al., 2004). Considering that patients readmitted to the ICU are two to ten times more likely to have higher mortality rate than those who were not readmitted to the ICU (Metnitiz, et al., 2003; Crocker and Timmons, 2008), it is worth readdressing the organizational culture of the ICU and its impact on the safe transfer of patients from ICU to the ward. However, it can be argued that these studies were conducted in different hospitals so it might be difficult to generalise findings as to whether organisational culture was the only factor that affected the outcome of patients transfer to the ward.

Irrespective of the various organisational dynamics, patient safety during transition to the ward should be paramount in every healthcare delivery system (Chayober, et al., 2008). Studies have been conducted globally to investigate measures that can be adopted to maximise patient safety before, during and after patients transfer to the ward. A major finding from such study identified that active collaboration among staff is necessary for the management of patients especially at the pre-transfer phase when patients’ vital functions need to be optimised (Haggstrom and Backstrom, 2014; Maclntyre, 2004; Rose, et al., 2008). However, there appears to be no universal approach to weaning patient off mechanical support adopted by nurses. While some nurses independently initiate weaning (Elliot, Worrall-Carter and Page, 2013; Rose, et al., 2011), others believe that weaning patients off ventilator is the responsibility of doctors (Haggstrom and Backstrom, 2008; Rumpke and Zimmerman, 2010). Crocker and Timmons, (2008) stated that nurses feel doctors generally have more authority over management of the ventilator than nurses as they would have been explicitly trained in the use of medical technologies thus weaning a patient from technological support is a medical procedure which should be carried out by doctors. Contrary to this view, Rose, et al. (2011) cross-sectional study of nurse managers revealed that all staff including nurses were trained in the use of ventilators so that, weaning patients from ventilators should involve an interprofessional interplay among nurses and doctors. Although doctors usually initiate the use of ventilators as it coincides with intubation of patients on their arrival to the intensive care unit (Maclntyre, 2004; Haggstrom, Asplund and Kristiansen, 2012). Rose, et al., (2011) argued that ICU nurses are in close proximity to critically ill patients during ventilation thus, they are in the best position to adjust ventilator settings and determine when the patient is due for extubation. This generally echoes the need for interprofessional collaboration amongst nurses and doctors through ongoing assessment of the patient’s physiological parameters so that decisions can be made about weaning patients from mechanical ventilation.

The importance of nurse’s skill, knowledge and experience in the management of mechanically ventilated patients was equally highlighted as an essential factor to be considered (Crocker and Timmons, 2008). This is evident in Blackwood, et al. (2013) quantitative study conducted in paediatric hospitals in the UK, which involved nurse managers. Findings from this study revealed that although weaning is often done collaboratively among doctors and nurses, those without ICU speciality training and qualification are not often involved in mechanical ventilation decisions (Blackwood et al., 2013). Similarly, a qualitative study conducted by Khalafi, Elahi and Ahmadi (2016) within six hospitals in Iran revealed that nurses experience of ICU care impacted positively on mechanical ventilation weaning through persistent interaction with critically ill patients. Although these studies support the importance of collaboration, knowledge and skill in facilitating weaning of patients of mechanical ventilation, it is vital to highlight difference in the study settings and methodological approach adopted in these studies which could affect the applicability of their findings. Nevertheless, Crocker and Scholes (2010) suggests that mechanical ventilation weaning should be individualised which can be achieved through continuous presence of the nurse especially because the patient’s condition can change rapidly resulting in deterioration or even death. Therefore, it can be argued that providing a holistic weaning approach in addition to collaboration, nursing knowledge and skill could facilitate transition process as it ensures that patients’ physiologic function is maintained pre-transition from ICU to the ward.

### 3.5.2 Optimizing Patients Function Post Transition

Patients’ transition from ICU to the ward has been identified as the most vulnerable period post critically ill patients encounter (Bunchner, et al., 2015). This is often due to several factors including a reduction in patients monitoring, increased risks of patient deterioration and difference in culture within the clinical setting (Li, Stelfox and Ghali, 2011; Cognet and Coyer, 2014). Evidence shows that patients and their family often feels vulnerable, helpless and unimportant (Strahan and Brown, 2005; Chayober et al., 2005), and they would want to feel safe throughout the transition period including when they are in the care of the ward staff (Hupcey and Zimmerman, 2000). Therefore, there is need to plan patients care to maximise patient safety and provide reassurance throughout the transition care trajectory.

Various strategies have been developed to facilitate patients’ transition such as the use of High Dependency Units (Ghosh, et al., 2004) and outreach services (Leslie, et al., 2010.). HDUs serves as intermediate care between the care provided in the ICU and on the ward for patients following a period of critical illness to maintain continuity of patients care at the level lower than the ICU and higher than ward care (British Association of Critical Care Nurses, 2014). The effectiveness of HDUs in facilitating early ICU discharges thereby impacting on the length of ICU stay without having any impact on patients mortality has been identified in various literatures (Ranzani, et al., 2012; Campbell, et al., 2008). Also, the British Association of Critical Care Nurses (2014), identified the group of patients that can be managed in HDUs to include patients requiring increased monitoring without requiring invasive respiratory support and patients following a major or complicated surgery. These services are essential in identifying early patients at risk of deterioration in addition to providing support to patients and their families (Fuhrmann, et al., 2008).

Nevertheless, studies have identified that the use of HDUs does not impact on cost and increases the length of hospital stay for critically ill patients. Solberg, et al. (2008), identified an increase in the cost of providing care to critically ill patients who were transferred to the HDU before they were transferred to the ward. The study stated that although HDUs are generally cheaper to run compared to the ICU, transferring patients to the HDU increases the length of hospital stay thereby having an indirect impact on the cost.

Similarly, Jean-Louis and Gordon (2015) systematic review concluded that there is limited evidence that supports that implementing the use of HDUs impacts on cost, efficiency and patients outcome following a period of critical illness. Furthermore, patients discharge from ICU to HDU did not impact on mortality rate as demonstrated in Ranzani, et al. (2012) retrospective study where a 90-day mortality rate was identified in patients discharged directly to the ward or HDU.

In contrast, a large observational multinational cohort study conducted in seventeen European countries which involved 5834 patients revealed that mortality rate was higher in hospitals without HDUs than in hospitals with HDUs (Capuzzo, et al., 2014).

Nevertheless, the difference in these findings can be accredited to differences in the sample sizes and methodological approaches adopted in these studies. Despite the difference in findings, it can be reasoned that the use of HDUs in transitional care should be implemented as it could be used to free up ICU beds and reduce the workload on ward nurses. Nevertheless, in Nigeria, there is no published evidence on the use of HDUs and how it can impact on patient safety in transitional care. Therefore, it is essential to explore the effectiveness of HDUs in facilitating transitional care in the Nigerian healthcare setting and its impact on cost, length of stay and patients mortality.

The practicality of utilising HDUs is an aspect of post-transitional care met with criticism because patients are transferred very rapidly due to the high demand for ICU beds by other very sick patients (Bunchner, et al., 2015). So, patients are often discharged to the ward in a very sick condition than in the past (McKinney and Deeny, 2002). Besides, the cost of running HDUs and resources required to provide such services remains an issue and a significant challenge facing the implementation and utilisation of HDUs (Beard, 2005). These factors arguably results in patients being transferred directly to the ward, where nurses are ill-prepared and equipped to handle very sick patients. Studies have revealed that most ward nurses lack the experience and nurse-patient ratio required to care for post critically ill patients discharged directly to the general ward (Elliot, Worrall-Carter and Page, 2013; Duffield, et al., 2011; Haggstrom, Asplund and Kristiensen, 2012; James, Quirke and McBride-Henry, 2013). Although ward nurses have expressed their willingness to provide a high standard of care required by post critically ill patients, they are often unable to deliver such care because of the large number of patients they have under their care (Haggstrom, Backstrom and Kiestiensen, 2009). According to Chellel, Higgs and Scholes’ (2006) ethnographic study conducted in England, ward nurses acknowledged that post critically ill patients sometimes require some form of specialist care which ward nurses may not be able to provide effectively. Also, Enger and Andershed (2017), stated that post critically ill patients on the ward receive suboptimal care because of the inability of nurses to balance patients’ needs with available resources such as human resources, time and skill mix. The lack of resources highlights the relationship between nurses disposition/expectation of maximising patient safety and factors that impact on patients care post-critical illness period. Therefore, it can be argued that developing a practical approach to the use of HDUs might promote ward nurses ability to manage the available resources and time post-patients transition from ICU to the ward.

Furthermore, other factors, such as organisational factors have been identified as factors that impact on patients’ care following a period of critical illness. Cox, James and Hunt (2006), exploratory descriptive study involving ward nurses in England, revealed that difference in environmental settings often affect nurses’ ability to care for patients. They stressed that the ward setting does not often provide the opportunity for them to care for post critically ill patients in their care because of distractions from other patients requiring care as well. In addition, Massey, Aitken and Chayober (2009), stated that some of the organisational failings include low staffing levels which increases the workload on nurses thereby impacting on the care post critically ill patients receive on the ward. Having the right staffing level has been identified as an essential component in maintaining the quality of patients care and maximising patient safety (Stone and Plumb, 2011). In Nigeria, staffing levels remains an issue within the healthcare system due to hospital bureaucracy, poor working environment, inadequate medical equipment and instrument (Federal Ministry of Health, 2010; Iloh et al., 2012). In order to address these issues, Akande and Kuranga, (2013), suggested the use of system maintenance mechanisms in determining the staffing level required to provide efficient patient care. However, the effectiveness of adopting this approach in maximising patients care has not been examined. In addition, this approach does not address other organisational factors such as poor working environment and limited availability of hospital resources which the Nigerian healthcare setting currently faces. Therefore, there is need to explore services that aim at improving transitional care of patients from ICU to the ward following a period of critical care.

### 3.5.3 The Critical Care Outreach Service

The need to maximise patient safety and reduce the risk of deterioration and death following a period of critical illness (NICE, 2007), have led to the development of several initiatives in most developed countries. Such initiatives are aimed at ensuring timely ICU admission, facilitating ICU discharges, preventing readmission to the ICU and providing support to ward staff (Department of Health, 2000; Endacott and Chayober, 2006). In the UK, for example, the Critical Care Outreach Services (CCOS) role was introduced through government policy (McGaughey, et al., 2007). The primary role of the CCOS was to prevent deterioration of post critically ill patients transferred to the ward (Ouanes, et al., 2012). In addition to this role, CCOS ensures that ward nurses receive adequate support post ICU discharge by sharing their critical care skills with them (Department of Health, 2000; Ramsay, et al., 2013). In other countries including Australia, the concept of CCOS known as ICU Liaison Team (ICT) was born out of professional interest and acknowledgment of the need to support ward nurses, patients and their relatives following patients transition to ward-based care (Endacott and Chayober, 2006; Green and Edmonds, 2004; Ramsay, et al., 2013). These services are nurse-led initiatives born out of critical care nurses interest to support ward nurses, patients and their relatives in order to ensure that a patients transition to ward-based care is safe and uneventful. Following the successful implementation of CCOS and ICT in Australia and UK, CCOS was introduced in South Africa to assist in the early identification and treatment of deteriorating patients on the wards (Story, et al., 2006). However, its compliance was initially problematic due to failure of ward nurses to identify deteriorating patients and activate CCOS (Carter, 2008). Nevertheless, there is no published evidence of the availability of the role of CCOS or services that mimic CCOS in Nigeria.

Although CCOS is a relatively new concept in critical care, its role in reducing adverse events, reducing ICU readmission and increasing survival post-critical illness cannot be overemphasised (Story, et al., 2006; Garcea, et al., 2004; Baker-McClearn and Carmel, 2008). In the UK for instance, CCOS has been applauded for its ability to support ward staff thereby enhancing their skill and knowledge in caring for post critically ill patients (Watson, et al., 2006). Similarly, a cohort study conducted in 52 acute hospitals across England revealed that CCOS visits to post critically ill patients reduced patients’ length of hospital stay and decreased rates of readmission to critical care units (Harrison, et al., 2010). In other western countries such as Australia, liaison nurses have been commended for their plausible role in preparing patients and their families for transition to the ward through education and support as this impact positively on ward nurses (Chayober, et al., 2005). Preparing patients and their families before transition to the ward has been highlighted as a factor that can impact on patients post-transition from ICU to the ward (Hagstrom and Backstrom, 2014). Preparation is essential as it creates awareness for patients and their families about the ward environment and what to expect while on the ward (Ramsay, et al., 2013). However, the generalizability of these findings is limited to fact that their sample sizes are not representative of the population of critical care units across the UK and Australia. Besides, contextual demands such as patients and their families opinion regarding the impact of liaison nurses on their ability to adapt to ward-based care was not sought. Therefore, exploring patients and their families view about liaison/outreach nurses role in preparing them for transition to the ward could yield a surprising outcome.

Furthermore, the role of outreach/liaison nurses has been linked to improved patient survival to hospital discharge, thereby reducing mortality and morbidity rate post-critical illness (Esmonde, et al., 2006; Endacott and Chayober, 2006). Harrison, et al. (2010) cohort study which involved patients who received one or more outreach visit pre and post ICU admission revealed that mortality rate was markedly decreased in patients who had outreach visit pre and post critical care periods. This finding is similar to earlier studies which revealed that implementation of outreach services resulted to reduced patients mortality from 9.3% to 4.8% (Garcea, et al., 2004) and reduced ICU readmission within 72 hours (Pirret, 2008). In contrast, McGaughey et al. (2007) systematic review which included two cluster randomised control trial conducted in the UK and Australia revealed no statistical evidence to support that implementation of outreach services impacted on patient’s mortality in the Australian study while patient’s mortality was reduced in the UK study following a period of critical illness. The difference in the findings can be attributed to difference in the outreach teams and MET in the UK and Australia although the effectiveness of outreach/liaison nurses in ensuring that patients and their family members as well ward staff are supported throughout transition cannot be overemphasised. An established a guideline on how to recognise and respond promptly to acutely unwell patients is vital in enhancing the outreach/liaison nurse role. Thus, exploring models for identifying deteriorating patients is essential to providing evidence-based approaches for identifying acutely unwell patients.

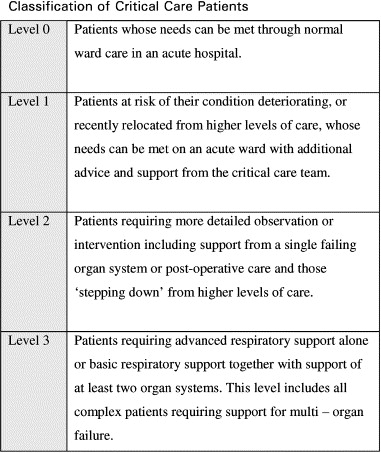
### **3.5.4 Models for Identifying Deteriorating Patients**

Various models have been developed to identify deteriorating patients either discharged from the ICU to a general ward or acutely ill patients on the ward (Watson, et al., 2006). These models were advocated for, following pieces of evidence that patients with clear medical indicators of sudden deterioration are at risk of being unnoticed on general wards (McGloin, Adam and Singer, 1999) which then increases the mortality rate and poor patient outcome (McQuillan, et al., 1998). In the UK, the Comprehensive Critical Care Model (CCCM) was developed to focus on patients need rather than where the individual is located (Department of Health, 2000). In addition, the adoption of CCCM encompasses the provision of seamless care to actual and potential critically ill patients (Esmonde, et al., 2006). Recently in the UK, a response algorithm was developed, which gives mandate to competent staff to respond timely to deteriorating patients (National Institute for Health and Clinical Excellence, 2007). The algorithm ensures that equal distribution of care is made available to every patient irrespective of their location and whether they are at risk of deteriorating or already deteriorated.

In Australia, the Medical Emergency Team Model (MET) was developed in response to the need to provide prompt medical intervention to deteriorating patients and reduce unexpected admission to the ICU (Chayober, et al., 2005; Endacott and Chayober, 2006). Unlike the CCCM, MET model recommends that doctors and nurses with Advanced Life Support (ALS) skills should be included as members of the team (Barbetti and Lee, 2008). Any staff can activate the MET system in response to changes in patients vital functions (temperature, pulse, respiration, oxygen saturation level and blood pressure) or any other identified trigger that can put patients health at risk (Watson, et al., 2006; Barbetti and Lee, 2008). Therefore, activation of MET encourages prompt medical intervention, thereby reducing the risk of patients’ deterioration and possible ICU admission (Baruch and Messer, 2012). Although both models adopt different approaches in terms of team composition, it can be argued that their aim in providing critical care without boundaries is the same by ensuring that measures are taken to manage deteriorating patients and where possible prevent death or ICU admission.

Nevertheless, the implementation of these models in both countries seems to adopt different patterns. In the UK, CCCM has been advocated as a measure to deliver critical care services to patients requiring it irrespective of where they are located within the healthcare facility (Watson, et al., 2006). Currently, patients are assessed and classified into a level of care ranging from 0-3 depending on their need for organ support and physiological health status (Baruch and Messer, 2012). As shown in figure 3:1 below, patients are admitted to level 0 of care if their needs can be met in a typical ward area while level 2 is designated for patients who are at risk of deterioration, for example, post critically ill patients recently discharged from ICU. Patients on level 2 and 3 will either be admitted directly to ICU depending on their need for one or more organ support (Intensive Care Society, 2009b).

**Table 3.1 classification of critical care patients**



This current division replaces the high dependency and intensive care beds usually allocated to deteriorating patients (Watson, et al., 2006) in the bid to ensure that providing high-quality patients care is neither governed by patient location nor nurse-patient ratio (Baruch and Messer, 2012). However, Williams and Wheeler (2009), argues that although this initiative helps to solve the problem of shortage of ICU beds, timely recognition and prompt referral to the next level of care is critical in maximising the effective utilisation of this initiative. Therefore, it is imperative to explore ward nurse knowledge and parameters used in recognising deteriorating patients or patients at risk of deterioration.

In response to the impending need to standardise parameters used in identifying deteriorating patients, track and trigger system was then developed. In the UK, the Early Warning Scores (EWS) was introduced as part of the initiative to increase nurse’s awareness of deteriorating patients or patients at risk of deterioration (Department of Health, 2000). EWS is a scoring system that gives a summary of physiological parameters of patient’s respiration, oxygen saturation, temperature, heart rate, temperature, urine output and level of consciousness (Baruch and Messer, 2012). Aggregate of the parameter across each domain is then entered into an algorithm to institute appropriate and prompt response based on the level of patients’ deterioration. Despite the introduction of EWS, evidences show that there are inconsistencies in the use of EWS as apparent flaws in identifying deteriorating patients still exist (National Confidential Enquiry into Patient Outcome and Death, 2012; National Patient Safety Agency, 2007).

Similarly, a systematic review conducted by Gao, et al. (2007) revealed that although EWS encourages staff to observe patients regularly, there is inadequate evidence to support its validity and reliability. Various reasons for the failure of EWS are related to poor observation and documentation standards as well as organisational factors (National Confidential Enquiry into Patient Outcome and Death, 2012). Consequently, owing to these reasons, it was evident that the need to harmonise EWS in order to provide a uniform and standardised approach to its use is imminent.

In an attempt to standardise the EWS system, Royal College of Physicians (2012) published a report on the need to nationalise the EWS system to provide a consistent approach to identifying and responding to deteriorating patients. The National Early Warning Score (NEWS) system was then developed and used as a track and trigger system across all NHS hospitals in the UK (Baruch and Messer, 2012). Since the introduction of NEWS system within NHS hospital in the UK, there has been an improvement in documenting patient’s vital signs and it provides clinical evidence to the appropriate team so that prompt actions can be taken to tackle any unexpected acute deterioration (Royal College of Physicians, 2012; Gao, et al., 2007). The improvement is evident in Carberry, Clements and Headley (2014) descriptive survey where 85.7% of ward nurses perceived that the introduction of NEWS facilitated the identification of deteriorating patients, while 87.5% felt that it improved referral of deteriorating patients for prompt treatment. Although Carberry, Clements and Headley (2014) findings support the use of NEWS in identifying deteriorating patients, a pre and post-study would have been done to provide a comparative view of nurses’ opinion regarding the effectiveness of NEWS in identifying deteriorating patients. Nevertheless, considering that patients physiological parameters are utilised to calculate NEWS which indicates patients rate of deterioration (Baruch and Messer, 2012), this implies that NEWS is an objective tool used to activate the outreach team.

Despite the widespread use of NEWS and its effectiveness in constant monitoring of all inpatient both in critical care units and on the ward to facilitate clinical decision making in case of an emergency, there is no published evidence concerning the availability and use of any track and trigger system such as EWS or NEWS in Nigerian healthcare institutions. Also, there is no evidence of any standardised national policy for identifying and managing deteriorating patients in Nigeria. A reason, explaining why most patients present in most critical care units in a moribund state (Osinaike, Akinyemi and Sanusi, 2012; Ilori and Kalu, 2012), thereby decreasing their likelihood of having a favourable clinical outcome post-critical illness. Besides, identifying deteriorating patients on the ward is limited by the fact that there is neither a ‘track’ system for identifying patients at risk of deterioration nor a ‘trigger’ system that can be activated to ensure timely response to patient’s needs.

Able resources. This may lead to suboptimal care (Field, Prinjha, &

Rowan, 2008), described as delays in diagnosis, treatment or referral,

Poor assessment and inadequate or inappropriate patient manage-

ment (Quirke, Coombs, & McEldowney, 2011). Apart from the bal-

ance between needs and resources, reasons for suboptimal care

could be organisational failings, lack of sufficient knowledge by

health professionals, lack of supervision and clinicians failing to seek

advice from colleagues (Massey, Aitken, & Chaboyer, 2009). Such

factors can cause stress for often already overworked nurses (Whit-

taker & Ball, 2000), and emotions such as anxiety, panic and lack of

control have been described (Zetterlund, Plos, Bergbom, & Ringdal

Nurses also need to balance the needs of patients with avail-

able resources. This may lead to suboptimal care (Field, Prinjha, &

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## 3.6 Nurses Handover Practices

Handover has been described as a familiar ritual among nurses (Malekzadeh,et al. 2013). Nursing handover is defined as the transfer of professional accountability and responsibility from one nurse to another (Ogunlabi, 2018). It is an essential phase in the transfer process, which serves as a medium for transferring patients’ clinical information, family and social history between the ICU and the ward (Haggstrom and Backstrom, 20014; Sluisveld, et al., 2015). Nurses handover process involves a nurse-led report intending to provide concise information about patients’ actual and potential health problems, treatment plans as well as diagnostic measures to the receiving nurses (James, Quirke and McBride-Henry, 2013). Also, Kowitlawakul, et al. (2015), stated that handover involves the transfer of information among nurses within or outside a unit such as patient handover at the end of a shift and before the start of a new shift or handover of patients’ pre-transfer to ward-based care. Other forms of handover include inter-professional handover, where a patient’s condition and care needs are communicated to other members of the healthcare team, such as doctors (Kross and Curtis, 2012). Irrespective of the type of handover required, it is imperative that a high standard of handover process is maintained to ensure that accurate patient information is being transferred to prevent medical and nursing errors in the patients’ future care.

James, Quirke and McBride-Henry, (2013), identified that effective handover between nurses before, during and after patient transition from ICU to the ward is crucial in ensuring that continuity of effective, individualised and safe patient care is maintained. Therefore, for patients’ transition to be effective and safe, efficient patient handover should be implemented so that ward nurses are aware of each patient’s condition and their healthcare needs.Various studies have investigated factors that contribute to effective patient handover between critical care units and the ward. According to a cross-sectional descriptive study conducted in Singapore by Kowitlawakul, et al. (2015) which involved doctors and nurses, 100% of the handovers were done on a face-to-face basis and identified several problems associated with this type of handover including:

* Human distractions such as phone calls, text message beeps, background noise, distraction from people including staff and non-staff members
* Mechanical distractions such as alarms from monitors.

These distractors affect the effective handover of patients either coming into the ICU or going out of critical care units to the ward. Although distractors cannot be eliminated within the clinical setting especially the ICU, it has been recommended that nurses should aim to minimise the level of distractions in order to grasp the patients' information that is passed on (Chayober, et al., 2005; Jefferies, et al., 2012). In contrast, James, Quirke and McBride-Henry, (2013) claimed that most of these distractions were attributed to the fact that most ward nurses feel burdened at the sight of having a patient from ICU which makes them antagonistic to ICU nurses. However, irrespective of the reason, any form of distraction during patient handover results in communication breakdown among nurses which could endanger patient safety (Australian Commission on Safety and Quality in Healthcare, 2012). Communication breakdown during patient handover has been identified as a significant cause of adverse events (WHO, 2007). International guidelines such as the Organisational leadership, Simple solution development, Stakeholder engagement, Implementation, Evaluation and maintenance (OSSIE guide) advocates that all forms of distractions should be reduced in order to maximise patient safety (Australian Commission on Safety and Quality in Healthcare, 2012). However, it could be argued that considering the organisational culture of the wards, it is almost impossible to eliminate the possibility of having distractions during patients’ handover. Nevertheless, nurses could aim at eliminating controllable factors such as phone calls and background noises that cause distractions during handovers in order to maintain a good flow of communication so that both the nurse handing over and the nurses receiving the patient will grasp all the information about the patient.

The handover of patient care can be done either through verbal or written communication as it involves the sharing of accurate patient information (Ong, et al., 2011). Furthermore, Cognet and Coyer (2014), identified the need for communication to be strengthened among ICU, ward nurses and patients irrespective of how the communication is done as this will promote patients understanding as well as help ward nurses prepare for the patient. Communication is particularly important as studies have demonstrated concerns over poor handover and inadequate patient preparation before their transition to a ward based-care and the inherent problems associated with it (Williams, et al., 2010). Nevertheless, there is need to explore further ward nurses’ experiences of caring for post critically ill patients on the ward to identify their concerns regarding the impact of poor handovers on patient safety, morbidity and mortality.

Furthermore, there is a real concern about the pace at which handovers are done. The concern was raised initially by Whittaker and Ball (2000) in their exploratory study of ward nurses’ experience of receiving patients from the ICU. In the study, ward nurses expressed concern about the fact that they lacked enough time to hand over patients care properly. Similarly, ward nurses felt stressed due to the rushed pace during the verbal handover of the patient and as such are unable to grasp the critical information about the patients’ planned care (James, Quirke and McBride-Henry, 2013; Jefferies, et al., 2012). Time is a crucial factor to consider when handing over patient care. Generally, both ICU and ward nurses often complained of the limited time allocated for handover (Whittaker and Ball, 2000; Mitchell and Courtney, 2005). The issue of time spent during patient handover is controversial. Although nurses generally prefer to spend more time handing over patient care because they believe that it promotes nurses understanding of the patient’s condition (Kowitlawakul, et al., 2015). Currier (2002) suggests that more extended handover increases the number of distractions experienced during handover. However, Currier (2002) study was limited by the fact that it was conducted in the accident and emergency department, which has a different organisation culture from the ICU and ward. Therefore, it will be difficult to draw conclusions based on the findings. As a result, it could be argued that further research is required to evaluate the impact of time during nurses’ handover on patient care especially following a period of critical illness.

## 3.7 Effective Communication in Transitional care

Many authors have described communication. However, communication means the exchange of accurate and complete information between people through the right medium (Currie and Waterson, 2008). The exchange of information encompasses verbal and non-verbal communication, including body language, tone and the pace at which the information is passed (Meester, et al., 2013). Thus, communication is not limited to what is said but includes how it is being said. Effective communication plays an essential role within the healthcare institution; it is a basic requirement that facilitates the countless daily interaction among staff members, patients and their relatives (Nadzam, 2009). Nurses are expected to communicate clearly through the use of a full range of verbal and non-verbal methods to facilitate an understanding of the information among patient’s and other work colleagues (NMC, 2015). Throughout the critical care trajectory, exchange of information is central to ensure that a safe and efficient patient care is always maintained (James, Quirke and McBride-Henry, 2013). Information exchange is done in order to prevent communication breakdown, which has been acknowledged as a leading cause of adverse events globally (World Health Organization, 2007).

Accurate information sharing in health care settings have been identified as a focus for many international governing bodies such as WHO, the National Patient Safety Agency, UK and American Institute for Healthcare Improvement (James, Quirke and McBride-Henry, 2013). Recently, the need for communication was stressed in the UK as part of the 6Cs of caring (Care, Compassion, Competence, Communication, Courage and Commitment) which reinforces the importance of putting the patient at the centre of care (Department of Health, 2012). Similarly, various emphases have been placed on the impact of institutional settings on communication processes, particularly in patients following a period of critical illness (Chaboyer, 2008). Thus, considering the sensitive nature of transitional care following a period of critical illness, it is pertinent to ensure that effective communication between ICU and ward nurses is maintained to promote patient safety (Nadzam, 2009).

Elliot, et al. (2011), qualitative study conducted in a 500-bed hospital and 12-bed general ICU in New South Wales, Australia emphasised on the effect of poor communication between ICU nurses, ward nurses and other members of the healthcare team on patient care. The study revealed that initiating patient care post-transition from ICU to the ward was delayed because of communication gap among ward nurses, ICU nurses and other members of the healthcare team (Elliot, et al., 2011). In addition to the fact that patients following a period of critical illness are often prone to deterioration (Haggstrom and Backstrom, 2014; Watson, et al., 2006; Rose, et al., 2011). Therefore, any delay in initiating patients care could complicate the patient’s condition by increasing their risks of morbidity and mortality which can be particularly detrimental to the patients’ health following a period of critical illness (Mc-Donnell, et al., 2007; Intensive Care Society, 2009). Initiating early intervention has been identified as a measure required to promote recovery and minimise the risk of deterioration, readmission to the ICU and possible mortality (Piers, et al., 2011).

Nevertheless, Elliot, Worral-Carter and Page, (2013) attributed communication breakdown among ICU and ward staff to the cause of delays in initiating medical care and lack of reporting abnormal vital signs which in turn resulted to patients’ deterioration. These findings buttress the importance of communication in the presence of measuring and recording patient’s vital signs. This suggests that despite evidence that ward nurses initiate patient observation post ward transfer, there is a need to go beyond documenting the findings and report any deviation from normal so prompt intervention is initiated.

Information sharing between ICU and ward nurses is imperative in ensuring that sufficient information about an impending transfer is provided to ward staff in order to facilitate the discharge process (Cognet and Coyer, 2014; Chayober, et al., 2012). Ward nurses and ICU nurses described communication as the foundation of collaborative care through which ward nurses are informed about patients’ needs and what to expect when a patient arrives on the ward (Haggstrom and Backstrom, 2014). According to a qualitative study conducted by Cognet and Coyer (2014) in an Australian metropolitan hospital involving 27 ward nurses, ward nurses stressed the importance of providing accurate patient information before patients arrival on the ward as this would help them be better prepared to commence patient care. Inaccurate patient information has been identified as a significant factor capable of causing communication barrier which in turn results to either providing inappropriate treatment or breakdown in the continuity of patients’ care (Thomas, Bertram and Johnson, 2009; Vardamam, et al., 2012). In contrast, Sluisveld, et al. (2015) argued that although the accuracy of discharge information communicated among nurses is vital in ensuring that continuity of patient care is maintained, it does not always assure positive clinical outcome of the patient. This reflects the need for ward nurses to go beyond having information about patients pre-transfer but developing strategies that can be used to plan and implement patient care.

Ward nurses have raised concerns over their ability to balance priorities, feeling of powerlessness and risking their professional image on patients and their families due to the fragility of post critically ill patients, high demand of care and limited availability of resources (Kauppi, Proos and Olausson, 2018). Also, Enger and Andershed (2017) descriptive qualitative study identified that although communication is vital in transitional care, it is often insufficient resulting in suboptimal transitions experienced by patients. Therefore, it can be argued that having the right information is essential to maximising patient safety, in addition to having an interplay between communicating accurate patient information, planning and implementation of planned care.Nevertheless, it is important to note that these studies(Kauppi, Proos and Olausson, 2018; Enger and Andershed, 2017) only explored the experiences of nurses without including patients and their relatives so, these studies are not reflective of the views of patients and their relatives. There have been speculations among ICU and ward nurses that informing patients and their families about what to expect following ICU discharge will allay their anxiety and act as a form of psychological support to them (Green and Edmonds, 2004). Also, ICU nurses have echoed the need for communicating with patients and their families throughout the transition process (Haggstrom and Backstrom, 2014). They based their argument on the fact that because patients’ progression and improvement is not predictable, maintaining excellent communication with them will help support the patient and their family members throughout the transition process (Mitchell and Courtney, 2005).

Similarly, ward nurses view the need to involve families and patients during transition to ward-based care as necessary in fostering patients and their relatives understanding of the actual ward circumstances and what to expect on the ward (Cognet and Coyer, 2014). However, studies have demonstrated that family members are not given proper information about the patient’s condition which in turn makes them feel unimportant, vulnerable and abandoned (Chayober, et al., 2005; Mitchell and Courtney, 2005). Therefore, there is need to foster communication between staff, patients and their relatives throughout the transfer process in order to allay their fears, anxiety and provide psychological support throughout the transition.

The need to involve family members and patients in transition activities through communication has been echoed in various research as they are often faced with psychological distress, feeling of abandonment and relocation anxiety as part of the transfer process to ward-based care (Ramsay, et al., 2013; Endacott and Chayober, 2006). Similarly, patients and their relatives have expressed certain expectations which they require reassurance from nurses, but these are not often being expressed by patients primarily because of their altered level of consciousness (Haggstrom and Backstrom, 2014). A phenomenological study conducted among six family members in Ireland which explored the lived experiences of patients in the ICU revealed that patient’s relatives need to make sense of their relatives situation through providing the constantly with information regarding patients progress and outcome (McKiernan and McCarthy, 2010). Nevertheless, because they are often not made aware of the actual ward situation and the high demand placed on ward nurses, there could be a potential conflict between their expectation and the care they receive on the ward (Kauppi, Proos and Olausson, 2018).

However, communication breakdown in healthcare settings is not limited to patient and family members alone. It includes other members of the healthcare teams. A leading cause of sentinel events in critical care have been attributed to communication breakdown among members of the healthcare team (National Patient Safety Agency, 2007; Australian Commission on Safety and Quality in Healthcare, 2009). The causes of such breakdown are difference in communication (Compton, et al., 2012; Narayan, 2013) and hierarchical issues among nurses and other member of the healthcare team (Monroe, 2006). Ward nurses, in particular, has raised concern over how hierarchical and existing power structure has impacted on their practice as they have little opportunity to influence patients care on the ward. In order to reduce the effect of communication error in healthcare settings, there is a need to implement measures that can be used to improve communication in transitional care.

### 3.7.1: The Use of Communication Tool in Transitional Care

The development and implementation of several practices have been advocated by international bodies such as the World Health Organization as a way of maximising communication safety and promoting safety measures (WHO, 2007). The safety measures developed by WHO, emphasises on the importance of preventing errors associated with patient care handovers through the development of a standardised handover approach (Chayober, 2008). A typical example and widely used communication tool is the Situation, Background, Assessment and Recommendation tool (SBAR). SBAR tool was first established in US by the naval officers as a means of minimising miscommunication (Doucette, 2006). Healthcare institutions then adopted the tool as a means of providing a structured discussion among healthcare staff (Thomas, Bertram and Johnson, 2009; Chayober, 2008). Within healthcare settings, SBAR has been used to facilitate the accuracy and efficiency of communication thereby improving understanding among healthcare teams (Vardaman, et al., 2012; Compton, et al., 2012). This is particularly important as the various professionals within the healthcare institutions are known to have different communication patterns (Narayan, 2013; Lancaster, Westphal and Jambunathan, 2015). Therefore, it can be argued that adopting a standardised approach to communicating patient’s needs among the healthcare team could facilitate the provision of concise information about a patient’s condition, thereby encouraging prompt intervention when necessary.

The use of the SBAR tool is beneficial to both patients as well as healthcare professionals. According to a pre and post SBAR intervention study conducted in a teaching hospital in Belgium with a response rate of 72% and 53% in the pre and post-intervention phase respectively, there was an increase in unplanned ICU admission and decrease in unexpected patient mortality (Meester, et al., 2013). Although finding from this study highlights an increase rate of ICU readmission, a positive interpretation reflects nurse’s ability to identify and utilise SBAR tool to report early any deviation from normal so that prompt action can be taken. In a similar study conducted by Radmaa, et al. (2014) in two anaesthetic clinics in Sweden with a response rate of 72% and 75% at the pre and post-intervention phase respectively, there was marked reduction in communication error and increase in nurses’ perception in communicating with other members of the healthcare team. Findings from this study are particularly significant as a previous study has shown that nurses are often reluctant to inform the doctor about patients’ health problems because of uncertainty of what patient’s condition should be communicated (Shearer, et al., 2012). Nurses confidence in making a clinical judgement about patient’s condition has been improved through the use of SBAR (Woodhall, Vertacnik and McLaughlin, 2008), thereby reducing the adverse effects of intra-professional hierarchical issues within the clinical setting (Randmaa, et al., 2014; Monroe, 2006). Analysis of the SBAR tool revealed that its elements are beneficial to healthcare professionals especially nurses as it avails them of the opportunity to give accurate and timely detailed information of the patient (Vardaman, et al., 2012). Therefore, irrespective of the professional hierarchy, the urgency of patients’ condition can be communicated with ease using the SBAR tool. Also, SBAR has been appraised for its effectiveness in bridging the communication gap among healthcare professionals (Compton, et al., 2012), through its structured approach to communication without emphasising a particular pattern of communication.

Other benefits of using SBAR tool identified in care settings includes prompt response to patient’s needs, positive patient outcome and increased consistency and accuracy of information (Meester, et al., 2013; Randmaa, et al., 2014; Vardaman, et al., 2012). However, there is a dearth of study that has explored the role of SBAR in improving patient safety before and after transfer from the ICU to ward-based care. Nevertheless, it can be argued that since some form of communication through handover of patient care is required before commencing ward-based care, it can be inferred that SBAR tool could help promote the transfer process and improve patient safety. Despite these assumptions, there is need to explore this concept to ascertain other organisational factors that could affect the effectiveness of using SBAR tool in communicating with ward nurses throughout the transitional period of patients from ICU to ward-based care.

In the Nigerian healthcare setting, there is no documented evidence of the use of the SBAR communication tool. However, emphasis has been placed on the use of communication tool such as ISOBAR (Identify, Situation, Observation, Background, Agree a plan and Readback) to provide detailed and concise information (Ogunlabi, 2018). However, the effectiveness of adopting this method of communication has not been established within the Nigerian healthcare setting. Despite the dearth of available evidence to support the use of communication tool in Nigeria, it is imperative to ensure that patients, their relatives and other members of the healthcare team are carried along throughout the transitional care period. Given the effectiveness of having a communication tool in developed countries, adopting a communication tool in Nigeria, could impact positively on patients’ outcome throughout the transitional care period. Generally, ICU and ward nurses need to provide evidence of care provided by documenting every care they deliver to patients which serves as a means of communication and foster the culture of continuity of care.

## 3.8 Documentation of Patients Care.

Documentation of patient care is regarded as a vital skill required by nurses to effectively communicate patients’ clinical status, changes in care and all medical/nursing care provided to patients (Nursing and Midwifery Council, 2012). Documentation is an integral part of healthcare delivery systems as it provides the opportunity for nurses and other members of the healthcare team to keep an accurate record of patients’ clinical information (Cognet and Coyer, 2014). This, in turn, forms the basis on which clinical decisions about the patient and patients care plans are made (Jefferies, et al., 2012). Within the context of patient transition, documentation plays a vital role as it provides evidence of patients’ physiological state and care provided throughout the critical care trajectory (Morrow, 2014). Furthermore, it serves as a means of abstract communication upon which clinical decisions and patient care plans are made in the absence of the person who delivered the care (Fuhrmann, et al., 2008).

Furthermore, the need to provide quality nursing documentation has been echoed by nursing bodies and authors as a means of communicating patient’s condition, care provided and response to care with other members of the healthcare team (NMC, 2012; Gebru, Ashberg and Willman, 2007; Jefferies, et al., 2012). Nursing documentation can be applied to a legal context where evidence of the quality of patient care provided is required as proof that necessary measures were taken to promote patient safety (Cheevakasemook, et al., 2006; Kydonaki, Huby and Tocher, 2013). The NMC states that nursing documentation should provide a clear and accurate account of patients’ condition, nurses contribution to patients care as well as patients’ response to care delivered (NMC, 2012), which should commence right from patients’ admission through to discharge (Jefferies, Johnson and Griffiths, 2010). It implies that nurses have the responsibility to ensure that all care provided to patients are documented accurately.

Within the critical care trajectory, the importance of nursing documentation can be inferred to providing adequate care to post critically ill patients before, during and after transition to ward-based care. While patients are still in critical care unit awaiting transfer, clinical judgement of patients’ level of improvement is made based on the patients’ ability to be nursed outside the critical care environment where the need for life support technologies are no longer required (Kydonaki, Huby and Tocher, 2013). Patients in ICUs are nursed in a ratio of 1:1 nursing (Ramsay, et al., 2013; Kauppi, Proos and Olausson, 2018; Intensive Care Society, 2009; British Association of Critical Care Nurses, 2014), thus they are being observed regularly. Studies have described the criteria for discharging patients following a period of critical illness to be mainly based on patients’ physiological status (Chayober, et al., 2005) and evidence of data from patients’ documentation (Elliot, et al., 2011). It implies that accurate patients’ documentation reflects the quality of clinical decision that is made on behalf of the patient. Additionally, following discharge from the ICU, documentation plays a significant role in ensuring that accurate patient information is communicated to the ward staff. James, Quirke and McBride-Henry (2013) study identified that ICU nurses often refer to patients’ records during handover of patient care to the ward staff. Again, this reflects the reliance on record keeping in fostering the continuity of patients care post ICU discharge. While on the ward, patients care continues and as nurses are bound by the code of professional practice to document every care delivered to the patient (NMC, 2015; WHO, 2007), documentation remains a usual practice within the wards (Chayober, 2008; Haggstrom and Backstrom, 2014). According to Haggstrome, Asplund and Kristiansen (2009) multi-centre study conducted in Sweden, showed that nurses who had access to patients documented care prior to ward transfer had an easy control and understanding of the patient than nurses in other hospitals who did not have access to patients’ journal before the patient was transferred to the ward. Similarly, Kydonaki, Huby and Tocher, (2013), demonstrated that having a documented plan of care promotes sustainability in the management of patients as it eliminates nurses’ preferences through the provision of a clear and detailed approach to patient care. Arguably, providing a documented plan of care could foster role descriptions and reduce the risk of role erosion among nurses and other members of the healthcare team. However, there is a dearth of study on the role of documentation in isolating professional role boundaries.

### 3.8.1 Impact of Poor Documentation

Despite the above-listed importance of documentation, evidence shows that the reliability of nursing documentation in making clinical decisions about patients’ care remains controversial (Jefferies, et al., 2012). Cheevakasemook, et al. (2006) attributed the issue of non-reliability of nursing documentation to the fact that nursing documentations are poor due to disruption of nursing documentation and irregular charting of patients vital signs. Vital signs monitoring is important in the care of patients as it provides a clinical indicator of body functions by recognising changes in patients vital functioning which manifests in the form of abnormal vital signs (Lighthall, Marker and Hsiung, 2009). Similarly, patients’ observation serves as a precursor to track and trigger warning system as they are drawn from a culmination of vital signs monitoring (Gao, et al., 2007). However, it has been stressed that the effectiveness of using track and trigger system in identifying deteriorating patients is dependent on three factors; identifying, documenting and reporting changes in patient’s vital functions (National Patient Safety Agency, 2007). These factors are essential as patients’ deterioration is preceded by sustained periods of instability before requiring admission to the ICU (Elliot, et al., 2011), which can be identified through monitoring, documenting and communicating the outcome of patients’ findings.

Poor documentation has been identified as a contributory factor to post critically ill patients developing adverse events post-critical illness. In a survey conducted in Australia by Elliot, Worrall-Carter and Page (2013) involving ICU liaison nurses, infrequent recording of patients vital signs contributed to the development of adverse events. Similarly, Rehmani, Memon and Nizami, (2009) found out an inadequacy in the frequency of documentation and interventions carried out in patients with abnormal vital signs. Inconsistencies in patient’s documentation does not provide the opportunity for the continuity of patient care to be maintained as there is no baseline data for future comparison about patient’s rate of improvement or deterioration to be made. In contrast, a number of studies revealed that although patients’ vital signs were documented correctly, there was failure to act when abnormal vital signs were observed (Fuhrmann, et al., 2008; Nurmi, et al., 2005; Nadkami, et al., 2006; Rehmani, Memon and Nizami, 2009). However, these studies are limited to a single centre study approach which in turn affects the generalizability of the findings. Nevertheless, it can be concluded that observing, recording and reporting of patients vital signs is vital in the continuity of patients care as it provides basis for future comparison in the event any deviation from patients normal functioning as such should be taken seriously to prevent further patient deterioration and possible mortality.

Despite an increased emphasis on the importance of accurate documentation in the continuity of patient’s care, studies have demonstrated that inaccurate documentation within healthcare institutions remains a global issue (Morrow, 2014; Paans, et al., 2010). In England, the enquiry into care provided by Mid Staffordshire NHS trust identified problems with the quality and consistency of nursing records as a contributory factor to the standard of care delivered to patients (Francis, 2010). Similarly, O’Connor, Earl and Hancock, (2007) stressed on the need to improve nursing documentation within the trust as improper record-keeping led to defenceless claims been made. In other countries such as Netherland, Sweden, Australia and New Zealand, nursing documentation is thought to provide an inaccurate account of nursing care which is often due to lack of clarity of nursing documentation (Paans, et al., 2010; Blair and Smith, 2012; Tornvall and Wilhelmsson, 2008; Tranter, 2009) and results in failure on its reliability to make clinical judgement (Cheevakasemook, et al., 2006).

Like other developed and developing countries, poor documentation in Nigeria has been identified as a factor that contributes to missed care. According to a mixed-method study conducted in four hospitals in southern Nigeria, 83.9% of nurses reported there had been an episode of missed care of which 51.6% were attributed to poor documentation and carrying out vital signs observation (John, et al., 2016). Similarly, Abdulkadir, et al. (2011) conducted a mixed-method research on radiographic medical request filling and handling in six Nigerian tertiary hospitals. Findings from the study revealed a significant poor documentation of patients’ age, gender, hospital number, date, diagnosis and name of practitioner requesting the test (Abdulkadir, et al., 2011). Poor documentation has been linked to patients care been missed or delayed, which impacts on the quality of care that patients receive, thereby compromising their safety (Ball, et al., 2014). Although this study focused on radiological request forms only which arguable could be filled by any member of the healthcare team apart from nurses, it is difficult to conclude if the poor documentation practice identified in the study was due to nurses’ failure alone. Unfortunately, there is limited evidence within the Nigerian healthcare concerning documentation of patient care. However, drawing inference from these studies, nationally and internationally, it can be argued that the need to adopt an improved standard of nursing documentation is imminent.

### 3.8.2 Measures to Improve Nursing Documentation

Improving the standard of documenting patients care has been highlighted as a means to strengthen the lapses often encountered in healthcare institutions (Morrow. 2014; Jefferies, Johnson and Griffiths, 2010). Standardisation of documentation is thought to strengthen the inaccuracies and inconsistencies associated with keeping an accurate record of care delivered to patients (Kaakinen and Torppa, 2009; Lees, 2010). Several suggestions in regards to the standard of nursing documentation include the use of nursing models as documentation systems (Prideaux, 2011; Jefferies, Johnson and Griffiths, 2010; Morrow, 2014). Nursing models improve the standard of documentation as it cuts across the essential components of patients care (Morrow, 2014). The World Health Organization (WHO), issued guidelines for documenting patient care with its focus on a patient approach to care and nurses’ accountability to care documented (WHO, 2007). The guiding principle developed by WHO is composed of ten elements which includes the 9 Cs (complete, clear, concise, complete, contemporary, collaborative, consecutive, confidential and correct) and the1 P (patient-centred). In line with WHOs’ (2007) documentation guideline, an NHS trust in England developed a three guiding principle for documentation; Guiding principle 1 – comprehensive and complete record, Guiding principle 2 – person-centred and collaborative, Guiding principle 3 – ensuring and maintain confidentiality (Morrow, 2014). Although these guiding principles are thought to cut across patients care, accurate documentation and ensuring confidentiality of all patient information, the need to standardise nursing method of documentation remains imminent which has led to the adoption of nursing documentation across England to be based on a model of nursing of which the commonly used one is the Roper, Logan and Tierney (Morrow, 2014).

The Roper, Logan and Tierney (RLT) model identifies 12 activities thought to provide patient-centred care which helps patients to progress across the dependence/independence continuum depending on the patients’ biological, psychological, sociocultural, political, economic and environmental factors (Williams, 2015). Studies have indicated the effectiveness of RLT model in improving patient’s outcome and increase patients involvement in their care through its ability to implement holistic approach in addressing patients care needs (Kara, 2007; Dalton, et al., 2012). Although these studies suggest that the RLT model is effective in improving patients’ outcome and promotes patients participation in their care, it is essential to note that these studies were conducted among patients with brain injury and chronic obstructive pulmonary disease and not in the ICU. Also the effectiveness of RLT model in assessing patients care was the primary focus of Kara (2007) and Dalton et al. (2012) studies. Nevertheless, it can be argued that since assessment is the precursor for documentation, then the RLT model could impact on documentation as well. Within the critical care setting, there seems to be evidence of documentation in most studies (Haggstrom, Backstrom and Asplund, 2009; Haggstrom and Backstrom, 2014; James, Quirke and McBride-Henry, 2013; Piers, et al., 2011; Elliot, Worral-Carter and Page, 2013). However, the use of nursing models in documenting patient care is not evident in literature. Therefore, further study is required to explore the use of nursing models in documenting patient care and its role in providing a safe transition of patients’ from ICU to the ward.

The need for standardising patients’ documentation in Nigeria has been identified as a fundamental principle that every nurse should adopt and the use of nursing process approach has been identified as a means for assessing and documenting quality patient care (Akpan-Idiok, et al., 2017). The nursing process has been described as a systematic and individualised problem-solving approach which is composed of five stages; assessment, diagnosis, planning, implementation and evaluation (Williams 2015). Critical evaluation into the use of nursing process carried out in Nigeria revealed that applying the nursing process approach in documenting patients care is challenging due to several factors which include nurses’ knowledge of nursing process, patient’s condition, inadequate documentation materials, increase workload and shortage of staff (Afolayan, et al., 2013). Similarly, Akpan-Idiok, et al. (2017), descriptive quantitative study conducted in a tertiary hospital in Nigeria on the knowledge and practice of nursing process revealed that nurses have sound theoretical knowledge of the nursing process but are unable to reflect it in their daily nursing practice. Some of the reasons for inadequate utilisation of nursing process identified in the study include; lack of time and stationaries, increased workload and nursing process being viewed as a foreign culture that has not been appropriately adapted to the Nigerian healthcare setting (Akpan-Idiok, et al., 2017).

Contrary to these views, Momoh and Chukwus’ (2010), study showed that staff shortage and poor knowledge of the nursing process among Nigerian nurses hindered the effective utilisation of nursing process approach in documenting patients. Despite the differences in findings of these studies, it can be argued that there is need for the Nigerian healthcare system to adopt and implement a more unified approach to nursing documentation that fits the cultural and organisational set-up of the Nigerian healthcare system. Nevertheless, this concept needs to be further explored in order to identify its suitability within the Nigerian healthcare setting.

Staff training has been identified as a means of improving the standard of nursing documentation as it ensures that the knowledge and skills in documentation is often updated within the nursing staff. According to Jefferies, et al. (2012) studies, ward-based writing coach programme improves the quality of nursing documentation, minimises the use of unofficial medical abbreviations and provides exact patient information to nurses and other members of the healthcare team. Similarly, documentation training helps reinforce the standard and acceptable medical abbreviations that can be used when documenting patients care (Blair and Smith, 2012; Morrow, 2014), thereby reducing the risk of misinterpreting and comprehending documented information (Jefferies, 2012; Cheevakasemook, et al., 2006). In Nigeria, the need to regularly update nurses knowledge on nursing process through staff training has been identified as a measure that could improve the acceptability and implementation of nursing process in documenting patients care (Afolayan, et al., 2013; Akpan-Idiok, et al., 2017). Practical trainings in documentation to improve the quality of nursing documentation, if encouraged regularly, could ensure that nurses are kept abreast with the acceptable organisational documentation standard. Nevertheless, the role of training in improving nurses’ documentation needs to be explored using a larger sample to provide evidence for healthcare institutions of the need to carry out documentation training among their staff. Excellent documentation is essential in maximising patient safety through fostering inter-professional collaboration among nurses (ICU and ward) and other members of the health care team.

## 3.9 Adopting Inter-Professional Collaborative Approach in Transitional Care

Collaboration means working together to achieve a common goal (Fuhrmann, et al., 2008). Within the health service delivery, collaboration involves working with multi-professional groups such as nurses, doctors, pharmacists and physiotherapists’ to deliver high-quality patient care (WHO, 2010). Collaboration can be achieved through the active commitment of all members of the healthcare team to provide improved and efficient patient care (Costa, et al., 2014). Inter-professional collaboration has been identified as a crucial element that improves the delivery of high-quality care in every sector of the healthcare chain (Daly, 2004; Costa, et al., 2014). Therefore collaboration can occur across different disciplines within the healthcare organisation. However, considering the nature of critical care settings (ICU) and the process involved in transitioning patients post-critical illness to ward-based care, having a team approach to care is pertinent to ensuring that patients’ transition to the ward is less complicated and patient safety is maximised (Haggstrom and Backstrom, 2014). The benefits of inter-professional collaboration in improving the quality of patient care, maximising patient safety and providing positive patient outcome cannot be overemphasised (Kerfoot, et al., 2006). Some of these benefits include providing support to ward nurses and early identification of deteriorating patients which has a significant impact on patients’ morbidity and mortality (Esmonde, et al., 2006; McGaughey, et al., 2007). Nevertheless, the effectiveness of inter-professional care has been linked to healthcare professionals’ ability to adopt certain principles that will foster good inter-professional relationship.

According to a qualitative study conducted by Costa, et al. (2014) in a multi-centre hospital in USA, structural and cultural facilitators were identified as factors that facilitated inter-professional collaboration. Structural facilitators were described as hospital-based interventions such as clinical protocols, daily care rounds and checklists while cultural facilitators are team member’s characteristics such as trust and value that enhances inter-professional collaboration among staff (Costa, et al. 2014). Similar to this view, Haggstrom and Backstrom, (2014) identified that for inter-professional relationship to be functional, teams and units involved in the care of patients should treat each other with respect without fear of mockery. Trust and respect are particularly crucial as inter-professional teams are expected to optimise their skills and communicate case managements with other units and teams involved in patient care (WHO, 2010). Therefore, it can be implied that having an inter-professional care team does not assure the success of interprofessional collaboration without having structural facilitators that will enable staff to adopt the culture of value and trust among team members.

Furthermore, Reeves, et al. (2010) conceptual model identified four domains of inter-professional collaboration; relational, processual, organisational and contextual. Relational and processual domains deal with team composition, hierarchy, information technology, routines and rituals. While organisational and contextual domains described as cultural and structural facilitators are required to provide staff support and eliminate fear (Reeves, et al., 2010), this implies that there is a link between the conceptual model and the facilitators of inter-professional collaboration (structural and cultural facilitators) identified by Costa, et al. (2014). The use of the conceptual model and facilitators of inter-professional collaboration can be applied to the perceived inappropriateness of care highlighted by most ICU staff. Piers, et al. (2011) cross-sectional study of ICU clinicians’ perceptions of appropriateness of care carried out in 9 European countries and Israel revealed that 1 in 4 ICU nurses delivered some degree of inappropriate care to patients. In the study, ICU nurses attributed a combination of factors ranging from job autonomy, increased staff workload leading to staff burnout and minimal use of inter-professional collaboration as the cause of the inappropriate care delivered to patients (Piers, et al., 2011).

Nevertheless, it is essential to note that Piers, et al. (2011) study grouped all the participants as clinicians, so it was challenging to identify the actual number of ICU nurses that participated in the study. Therefore, it can be argued that findings from this study do not reflect ICU nurses opinion alone. In another study conducted by Kross and Curtis, (2012) nurses involvement in decision making and increased collaboration among staff reduced nurse’s perception of patients having improper care delivered to them. Every member of the healthcare team plays a unique role in the management of patients. For instance; while nurses spend considerable time in assessing, planning, implementing and evaluating patient care, doctors are responsible for making patients’ medical diagnosis based on available evidence from investigations and patients’ clinical manifestations (Daly, 2004; Harrison, et al., 2010). Consequently, inter-professional collaboration is a principal component in attaining safe delivery of care to critically ill patients as neither nurses nor doctors and other members of the healthcare team can function well independently. Therefore, adopting the culture of value and respect will foster a lasting inter-professional relationship and ensure that patient’s safety is not jeopardised.

Decision making has been identified as a crucial component for interprofessional team collaboration which can be achieved through a blend of multi-disciplinary team members involved in the patient care (Kydonaki, Huby and Tocher, 2013; Kross and Curtis, 2012). Member of the interprofessional team often engage in an open and coordinated sharing of ideas that can be implemented to provide an improved quality of patient care (Rose, et al. 2011). However, nurses have a limited input during the decision-making process during transitional care, and studies have identified factors that contribute to this trend. According to Kydonaki, Huby and Tocher (2013), an ethnographic study conducted in Europe which involved two tertiary hospitals in Scotland and Greece, the level of support from senior nurses, ICU shift structure and medical hierarchy among clinicians impacted on their role during multi-disciplinary decision-making process. Nurses who had a higher level of support from senior nurses (Scottish nurses) demonstrated high sense of autonomy, motivation and teamwork within the team than other nurses (Greek nurses). Similar studies in support of this notion claims that although lack of support deters nurse’s autonomy and involvement in decision making (Merkouris, et al., 2003), adopting the habit of supportive management among senior nurses may impact positively on junior nurses by increasing their level of motivation and involvement in decision making. Nevertheless, it can be argued that having supportive management alone cannot assure nurses participation and involvement in decision making within the multi-disciplinary team. Therefore, there is a need to develop more exclusive strategies that will support nurses in pairing collaboratively with other members of the healthcare team.

Irrespective of the level of support junior nurses receive from senior nurses, inter-professional conflict was observed among nurses and other members of the multi-disciplinary team in most areas of decision making (Haggstrom and Backstrom, 2014). Collaborative pairing was often hindered by nurses initiating decisions covertly by delegating specific responsibilities to specific roles. For instance, a decision to wean a patient off the ventilator becomes a doctor’s responsibility (Rumpke and Zimmerman, 2010). It was observed in another study that nurses usually use an informal approach to convince doctors to initiate weaning decisions to adjust the ventilator settings (Kydonaki, Huby and Tocher, 2013). Although the decision to initiate ventilator weaning was made collaboratively, doctors are responsible for giving consent to either or not to continue with the decision. Therefore, it might be inferred that nurses try to convince doctors of the need to initiate weaning in order to have some form of legal backing before making any subtle adjustment to the ventilator setting.

Contrary to this view, Coombs, (2003) stressed that although ICU nurses strive to initiate care through comprehensive assessment of patients signs and symptoms, inter-professional conflict usually arise from the traditional hierarchy that exists within the clinical team. Inter-professional conflict among nurses and other members of the multi-disciplinary team has evolved over the years as an acceptable dominant power (Randmaa, et al., 2014; Monroe, 2006). However, the current trend in inter-professional conflict has moved from a mere dominance of power to being professional accountability (Kydonaki, Huby and Tocher, 2013) as nurses are bound by the code of professional practice which makes them accountable for their professional conduct (Nursing and Midwifery Council, 2015). In contrast, Coombs and Ersser (2004), argued that nurses are still unable to have substantial influence in clinical decision making due to the presence of medical hegemony and variations in clinical practice among members of the multi-disciplinary team. Although the role of ICU nurses within the inter-disciplinary team is evident in most studies (Haggstrom and Backstrom, 2014; James, Quirke and McBride-Henry, 2013), nurses lack autonomy and the ability to articulate their skill and knowledge in contributing to patient care (Coombs and Ersser, 2004). The lack of autonomy or articulation by nurses explain why other members of the team often overlook the input of nurses within the interdisciplinary team. Therefore, in order to avert this pattern of hegemony within the inter-professional team, nurses need to develop a strong sense of autonomy and doctors adopt a collegial working environment which will promote a harmonious team spirit among all members of the interdisciplinary team.

## 3.10 Summary of Challenges of Effective Patient’s Transition in Nigeria

The availability of ICUs has provided an avenue for critically ill patients to be managed effectively (Stelfox, et al., 2013). However, providing effective critical care services pose a considerable challenge in Nigeria (Onyekwulu and Anya, 2015). These challenges are often attributed to the fact that critical care facilities are still in their infancy and the need for critical care services outweighs available resources in developing countries such as Nigeria (Mato, Onwuchekwa and Aggo, 2009). More so, the availability and utilisation of critical care services have been hampered by several factors such as the cost of providing critical care, absence of discharge protocol, adequate ICU equipment and lack of ICU staff training (Bolaji and Kolawole, 2005; Poluyi, et al., 2016). Globally, providing critical care services is expensive with a critically ill patient costing six times more than non-critically ill patient (Intensive Care Society, 2009). Unfortunately, in Nigerian healthcare setting, patients are responsible for the financial cost of their hospital care without any form of government subsidy to help pay for medical treatment (Isamade, et al., 2007; Ilori and Kalu, 2012). The lack of external assistance may be detrimental to some patients as not all patients would be able to afford the cost of critical care.

In developed countries, protocols such as the use of NEWS in identifying deteriorating patients have helped guide resource allocation (Barruch and Messer, 2012; Williams and Wheeler, 2009), which then ensures the effective utilisation of the ICU. In contrast, developing countries such as Nigeria, identifying deteriorating patients is difficult due to the absence of protocols that guide the detection of deteriorating patients (Okafor and Aniebue, 2004). According to Isamade, et al. (2007) retrospective study conducted in the Northern part of Nigeria, a queueing approach whereby patients are admitted to the ICU based on first come first served was used to admit patients into the ICU. Also, Mato, Onwuchekwa and Aggo, (2009), identified that the absence of protocol in admitting and discharging patients from the ICU resulted in the misuse of the ICU. The ICU was occupied by close relatives of medical staff and sometimes used as a backup for the hospital when there were no available beds thereby denying access to critically ill patients that require intensive care services (Mato, Onwuchekwa and Aggo, 2009). Based on the available evidence, having an admission and discharge protocol in place may reduce the misuse of critical care services in developing countries such as Nigeria.

Furthermore, non-availability of essential ICU equipment and healthcare personnel’s have been highlighted as major challenges facing most developing countries. Most ICUs in Nigeria do not have mechanical ventilators, infusion/syringe pumps and other devices such as blood pressure and blood glucose monitoring machines for carrying out necessary observations (Ilori and Kalu, 2012). This is evident as patients observations were done manually and the inability of critically ill patients to be ventilated due to malfunctioning of the ventilators (Mato, Onwuchekwa and Aggo, 2009). The use of most electrical equipment is hampered due to the absence of constant electricity supply which is very important for efficient functioning of clinical electrical appliances (Osinaike, Akinyemi and Sanusi, 2012). In another study, Ilori and Kalu, (2012), identified that 75% of mechanically ventilated patients experienced episodes of ventilator malfunction, power failure and oxygen exhaustion. The availability of equipment is necessary in ensuring that patient care is maximised (Carter, 2008). However, in its absence alternative measures could be sought which explains why patients monitoring was done manually in Nigeria healthcare settings.

Consequences of these may result to increased mortality rate, increased Length of Stay (LOS) in the ICU and sometimes, patients are discharged home directly from the ICU (Okafor and Aniebue, 2004; Mato, Onwuchekwa and Aggo, 2009). Critical care settings in developing countries are faced with high mortality rates due to the absence of essential resources required to maintain patient safety (Carter, 2008). Mortality rates in Nigeria critical care settings range from 32.9% to as high as 61.4% (Ilori and Kalu, 2012; Poluyi, et al., 2016). Also, the length of ICU stay in developing countries like Nigeria is between 24hours to 72days (Onyekwulu and Anya, 2015). Length of stay for a patient in ICU may deplete limited resources may have a significant effect on the availability of critical care resources to critically ill patients who require them (Okafor and Aniebue, 2004). However, considering the absence of ICU discharge protocols and self-funded approach to care being adopted in Nigeria, the unfortunate patients that require critical care services could be denied because of their inability to pay.

Nevertheless, ascertaining the outcome of most patients admitted to the ICU was difficult because of the high rate of ICU misuse in most developing countries. Despite this, there is evidence of transition from ICU to the ward in Nigerian healthcare settings, as most studies recorded the numbers of patients that were transitioned to the ward. Poluyi, et al. (2016), recorded a total of 97.6%, while Mato, Onwuchekwa and Aggo (2009) identified that 41.3% of patients were transitioned to the ward. The difference in the findings can be attributed to the fact that most of the patients admitted to the ICU in Mato, Onwuchekwa and Aggo (2009) study did not require critical care services. However, they were admitted into the ICU because they were highly influential and could afford to pay for ICU services. The inequality of access to critical care services that exist within the Nigerian healthcare setting could have a detrimental impact on the deprived groups of people. Nevertheless, there are limited evidence base available pieces of literature to support this claim.

Although, the evidence from literatures within the Nigerian healthcare settings identified that transitional care takes place in Nigeria despite the challenges facing transitional care that has been highlighted (Onyekwulu and Anya, 2015; Onotai and Ebong, 2013; Illori and Kalu, 2012; Osinaike, Akinyemi and Sanusi, 2012; Mato, Onwuchekwa and Aggo, 2009). Nevertheless, the role of healthcare professionals, precisely nurses in transitional care was mostly missing in most studies. This is because most of those studies adopted a retrospective approach which does not provide the opportunity for a nurse’s role throughout the transitional care period to be explored. Considering that patients following a period of critical illness are at risk of deterioration requiring ICU readmission or even death (DoH, 2000; Haggstrom and Backstrom, 2014), there is need to explore measures that can be adopted to maximise patient safety. Also, based on evidence from pieces of literature which supports that nurses are in constant contact with patients throughout the transition process from ICU to the ward. Furthermore, the researcher is a Registered Nurse and appreciates nurses role in transitional care. It was intended that this study will explore nurses opinion to identify measures to maximise patient safety.

## 3.11 Statement of Research Problem

Evidence from pieces of literature around patient’s transition reveals the existence of functioning ICUs in Nigeria. However, problems such as high morbidity and mortality rate, lack of ICU discharge protocol, non-availability of equipment and staff, increased LOS in the ICU, high cost of ICU care and misuse of the ICU were identified. Despite these existing challenges in Nigerian critical care settings, there is limited evidence of care provided by healthcare professionals especially nurses to post critically ill patients in Nigeria. Furthermore, most of the studies conducted in Nigeria around patients’ transition adopted a retrospective approach without any reference to nursing care throughout the transitional care trajectory. Arguably, the methodology adopted in most Nigerian studies around patients’ transition from ICU to the ward affected the identification of nurses’ role in transitional care of patients following a period of critical illness in Nigeria. Considering that transition is a central concept in nursing and inference from studies conducted in other developed countries, it is necessary to explore patients transition from nurses’ perspective in Nigeria to identify measures that can be adopted to maximise patient safety.

## 3.12 Significance of the Study to Nigerian Health Care

The outcome of this study is significant in critical care in Nigeria as itis the first study to explore nurses experiences of patients transition from ICU to the ward following a period of critical illness in Nigeria. Previous studies conducted around transition adopted a retrospective approach which entails reviewing of hospital records. Undertaking this research facilitates the identification of nurses role and the roles of other healthcare professionals in transitional care. Also, this study is relevant in understanding the transitional care process in Nigeria as well as identify challenges facing transitional care in Nigeria. Findings from this study can be used to inform policies and practice around transitional care in Nigeria.

## 3.13 Research Aim

This research aims to explore the experiences of Nigerian nurses regarding the transition of patients from ICU to the ward following a period of critical illness.

## 3.14 Research Objectives

* To provide a clear description of patients’ transition processes based on ICU and ward nurse’s experiences.
* To explore participants view on the group of healthcare professionals involved in the transitional care of patients from ICU to the ward.
* To identify ICU and ward nurses perspective of factors affecting transitional care of patients from ICU to the ward in Nigeria.
* To explore participants’ views on measures that can be implemented to improve patient’s outcome following a period of critical illness.

## 3.15 Summary of the Literature

Following an extensive review of literature, no published evidence within the literature has explored the nurses’ experiences of patient transition from ICU to the ward in Nigeria. Evidence from literatures reviewed suggests that a high mortality rate of between 32.9% to as high as 61.4% has been associated with patients following a period of critical illness in Nigeria (Poluyi, et al., 2016; Ilori and Kalu, 2012; Mato, Onyechekwa and Aggo, 2009; Bolaji and Kolawole, 2005). Issues such as increased readmission to the ICU and increase length of hospital stay has also been identified as likely problems associated with transitional care especially in Nigeria (Haggstrom and Backstrom, 2014; Isamade, et al., 2007; Okafor and Aniebue, 2004). In addition, patients and their relatives often encounter other psychological challenges such as relocation stress which may impact on their outcome post-transition from ICU to the ward (Ramsay, et al., 2013). Due to these challenges faced by post-critically ill patients, the need for multidisciplinary teams to support these patients through the transition process has been highlighted (Stelfox, et al., 2013). Within the multidisciplinary team, nurses play a significant role throughout the transitional care period by ensuring that a safe patient transition from ICU to the ward is achieved. (Hagstrom and Backstrom, 2014). Therefore, obtaining evidence from the nurses’ perspective regarding patients’ transition from ICU to the ward is essential in exploring the transition process of patients from ICU to the ward.

Despite nurses’ role in transitional care, only a few studies have explored the transition of patients based on nurses’ experiences. These studies were conducted in developed countries, for example, Sweden, UK and Australia (Haggstrom and Backstrom, 2014; James, Quirke and McBride-Henry, 2013; Chayober, et al., 2002). However, in developing countries such as Nigeria, there is no published evidence of nurses experiences of patients’ transition from ICU to the ward-based. Similar studies concerning patient transition conducted in Nigeria adopted a retrospective approach (Onyekwulu and Anya, 2015; Onotai and Ebong, 2013; Illori and Kalu, 2012; Osinaike, Akinyemi and Sanusi, 2012; Mato, Onwuchekwa and Aggo, 2009; Bolaji and Kolawole, 2005). These studies did not consider nurses input and their role in transitional care of patients following a period of critical illness. Therefore, capturing the experiences of nurses as set out in this study will help gain an understanding of transitional care in Nigeria and also identify possible challenges based on nurses’ perspective.

Furthermore, the methodological approach adopted in this study firstly quantitatively provides an overview of nurses experiences of patients transition from ICU to the ward before explaining the findings qualitatively thereby, providing a detailed explanation of nurses experiences from ICU to the ward in Nigeria. Therefore, findings from this study can aid in providing information that can be used to improve the care of patients following a period of critical illness. Similarly, the findings from this study can be used to inform policies around transitional care, thereby improving healthcare practices and maximising patient safety. Being the first study to explore the transition of patients based on nurses experiences in Nigeria, it can be used as a basis for other studies to be conducted within this field.

# Chapter Four

# Conceptual Framework

## 4.1 Introduction

Conceptual frameworks are critical in studies of various scales (large or small) and can be used in both deductive and inductive studies. They are abstract representations that aim to capture the researcher’s world view of the concepts that relate to the phenomenon under study (Green, 2014). In addition, the conceptual framework forms the basis and structure that underpins every research (Parahoo, 2014). This implies that conceptual frameworks are essential in providing structure and strength to every research. Furthermore, LoBiondo-Wood (2010) states that in order for a research design to be operationalised adequately, the conceptual framework, literature review, research purpose and aim should complement each other. The conceptual framework adopted in this study is a combination of meleis, et al. (2000) transition theory, Schlossberg’s (1997) transition theory and Bridges (2009) transition model. This chapter will focus on these conceptual frameworks of transition and how they relate to patients transition from ICU to the ward following a period of critical illness. Initially, an overview of the concept of transition will be provided. A discussion of major transition theories follows this. The model of transition that applies to this study will then be provided and justification for its application in this study.

## 4.2 Overview of the Concept of Transition

Transition as a concept can be attributed to various disciplines as well as an individual’s everyday life (Chick and Meleis, 1986). Transition has been defined in various ways to reflect the discipline they describe. According to the English Oxford Living Dictionary (2015), transition is a process or period of changing from one state or condition to another. Initially, transition was conceptualised as a social ritual which encompasses the passage of individuals through the different phases of life, such as a transition from childhood to adulthood (Kralik, Paterson and Coates, 2010). Subsequently, the individual’s response to transition was identified as an important aspect that should be considered concerning transition theory (Meleis, 2010). Understanding transition is pertinent as it highlights the continuities and discontinuities often experienced at the various stages of human life (Kralik, Visentin and VanLoon, 2006). Within the healthcare setting, patients always experience transition irrespective of the nature of their illness which could be acute, chronic or terminal with or without the need for one or more organ support. Patients admitted to the ICU often present with life-threatening conditions requiring multiple organ support to maximise their chances of survival (Chayober, et al., 2002; Stelfox, et al., 2013). Following nursing and medical intervention of critical illness to attain a stable level of health, the transfer of patients to other areas of care ensues (Ramsay, et al., 2013; Ouanes, et al., 2012). Some Patients may die, during the same process of intervention which in itself categorised as a form of transition. However, the scope of analysis of this conceptual framework is limited to transitions from ICU to the ward so; more emphasis will be placed on patients’ transition from ICU to the ward post-critical illness period.

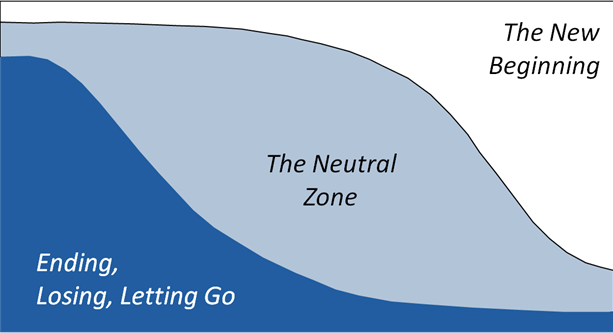
Transitioning from a critical care environment to the ward or other areas of care is often associated with patients following a period of critical illness (St-Louis and Brault, 2011; Enger and Andershed, 2017). Thus, it can be said that post-critically-ill patients undergo various phases of transition, starting from the point of admission to the ICU to when their condition improves or deteriorates. However, considering the challenging nature of transition on the patient and their family members, staff and the healthcare institution (Haggstrom and Backstrom, 2014), transitioning from ICU to the ward would vary considerably for everyone involved especially for the patients and their families. There are various transition theories and models, for instance, the grand theory, middle-range theory and substantive theory. However, applying these theories to a particular area of speciality differ based on their disciplinary focus (Kralik, Visentin and VanLoon, 2006). Therefore, transition theories and models that are related to health illness or can be applied to health illness transitions will be considered in subsequent sections of this chapter.

## 4.3 Transition Theories and Models

Over past decades, transition is associated with different disciplines such as anthropology, musicology, history, geography and social sciences (McKinney and Deeny, 2002; Kralik, Visentin and VanLoon, 2006). However, the earliest conceptualisation of transition is attributed to anthropology. VanGennep (1960) described transition from anthropological perspective by stating that transition is a “rite of passage” from one state to another**.** Conceptualising transition from the anthropological perspective proposed that an individual’s life comprises of successive stages which have a beginning and an end (VanGennep, 1960). These stages were described as social rituals of passage throughout a person’s life course; from childhood to adulthood and from one occupation to another (Ramsay, et al., 2013). Van Gennep (1960), viewed transition as a process that adopted a typical pattern, and it occurs in three stages: Separation, transition and integration. At the separation stage, the individual feels separated from the previous norms and customs of their social lives. The transition phase, also known as the liminal phase, is characterised by a feeling of confusion and alienation (Draper, 2003). A characteristic which explains why this phase is commonly described as ‘no man’s land’ as the individual has left his past life and the new state is yet to emerge (Ludin, Arbon and Parker, 2013). The integration phase occurs when the individual is reincorporated into society to assume new roles and customs. Although this theory has been criticised for its descriptive approach to transition and its emphasis on ceremonial rituals (Watts, 2012), most modern transition theories were developed based on the stages that were identified in this theory.

A typical example of the modern transition model is the Bridges (2009) Model of transition. Bridges (2009) provided a striking difference between change and transition from an organisational change perspective. He perceived change as a situational and physical phenomenon while transition was described as a psychological and internal process that people undergo in order to come to terms with their new situation (Bridges, 2009). The conceptualisation of transition, according to Bridges (2009), can be likened to transfer, and transition. While transfer refers to physical change, transition is concerned with mental movement of individuals from one state to another. Similar to VanGennep’s (1960) three-phase theory; Bridges identified transition as comprising of an ending, a neutral zone and a new beginning as shown in figure 4.1 on page 98. The similarity, reiterates the fact that Bridges transitional theory has its root from VanGenneps (1960) transition theory.

**Figure 4.1 Bridges transitional model**



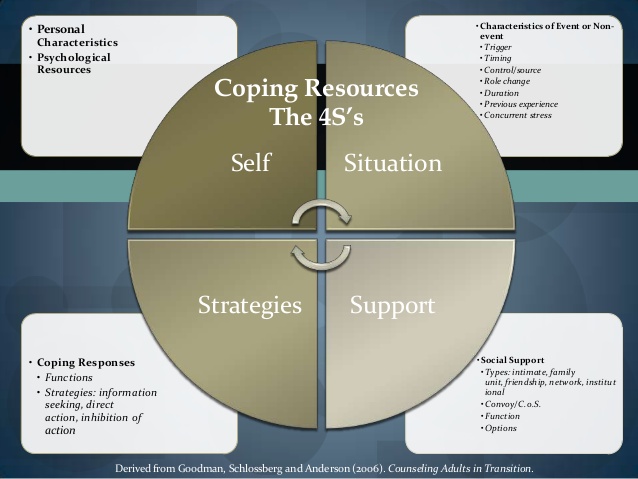
The ending phase is the stage at which an individual disconnects from the previous situation and connects with the new world. Hence why this phase was described by Bridges (2009) as the first phase of transition. The neutral phase is the phase at which the individual has let go of the old ways of doing things but is yet to get accustomed to the new ways (Bridges, 2003). The new beginning was described as the slowest phase of the transition process where the individual begins to learn to get accustomed to the new ways (Bridges, 2009). However, for a transition to be effective, these phases must be adopted in the given order, but the phases often overlap.

Nevertheless, it is essential to note that transition, being an internal and psychological process, is not time-bound and individuals’ responses at any given phase could vary (Kralik, Visentin and Loon, 2006). Transition theories have also been developed to explain why people react and adapt to transition differently at various stages of life (Schlossberg, 1981). A revised version of Schlossberg’s model is composed of three phases; transition, the transition process and the coping with transition (Schlossberg, 1997). Schlossberg, (1997) transition theory identified that transitions can be anticipated, non-anticipated or non-events and that transitions are defined by the individual experiencing a period of change and that individual reaction to change is different (Ludin, Arbon and Parker, 2013). As shown in figure 4.2, Schlossberg (1997) transitional theory identified the “4S” (Self, Situation, Strategies and Support) as factors that affect an individual’s transition. Self is composed of the individual’s characteristics and psychological resources such as age, gender, ethnicity, socioeconomic status and values which could affect personal response to transition (Pendleton, 2007). Situation focuses on factors that precipitate the transition event, which is affected by previous experience, concurrent stress, duration of event, timing and triggering factors (Anderson, Goodman and Schlossberg, 2011). Strategies deals with the individual’s response to transition, which can be achieved through the individual seeking information, direct or inhibition of actions. While support is concerned with the availability of social support such as family, friends, institutions and network (Ludin, Arbon and Parker, 2013).

Irrespective of the type of transition that is being experienced, the interplay between self, the situation, strategies and support available determines the individual’s response to the transitional event (Goodman, Schlossberg and Anderson, 2006). Therefore, it can be argued that because individuals react to transition in different ways and because factors identified by Schlossberg (1997) that affect transition vary (Anderson, Goodman and Schlossberg, 2011), individuals experiencing the transition process will need to adjust to the changing situation by adopting new rules and norms based on what they are experiencing at the time. When applying Schlossberg’ (1997) transition theory to the context of post-critically ill patient, healthcare providers must be aware of the dynamics of transition which could be perceived, interpreted and manifested differently by patients transitioning from ICU to the ward.

Although Schlossberg’s (1997) transitional theory focused on the individual undergoing transition and the factors (4S) that affect the transitional process, it is essential to note that its origin was not health-illness related and does not have a nursing focus. Nevertheless, one can argue that healthcare services and healthcare providers caring for post critically ill patients constitutes the support group (see figure 4.2 below) that provides institutional support to the patients. The implication of Schlossberg’s (1997) transitional theory is relevant to this study and which was a reason for its consideration in this study. However, there is a need to explore other transitional theories that focus on the factors (4S) that has been identified in Schlossberg’s (1997) transitional theory.

**Figure 4.2 Diagram of Schlossberg’s Transition Theory**



Chick and Meleis (1986) attributed transition theory to a central concept in nursing. The theory was developed based on an understanding of nursing practice and the transitions to advance nursing knowledge (Meleis 2010). Chick and Meleis (1986) likened the concept of transition to development and adaptation theories as it allows for either continuity or discontinuity of life processes often experienced by individuals. Unlike Bridges (2009) and Schlossberg (1997), Meleis (2010) perceived transition to be related to change and development that are beyond the individuals’ control.

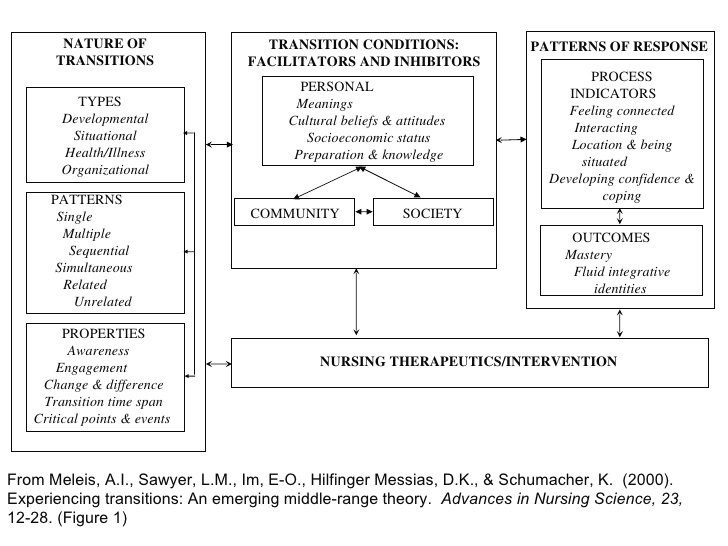
Furthermore, they described transition as change exhibited over time in a particular direction and encompasses periods between stable states (Schumacher and Meleis, 1994). The concept of transition within the healthcare field states that changes that arise as a result of health, illness or an individual’s response to health or illness falls within the domain of nursing (Meleis, 2010; Kralik, Visentin and VanLoon, 2006). Typical examples of health-illness situations requiring transition include acute and chronic conditions such as critically ill patients, patients requiring surgical intervention or patients being discharged from critical care. These periods are characterised by overwhelming episodes of instability and unanticipated outcomes which often affect the patient’s state of normality (Berube, et al., 2014). So, it can be inferred that transition is related to change and development which Meleis, et al. (2000) described as themes that are highly applicable to nursing.

Transitional care is an important aspect of care provided to patients following a period of critical illness (Chayober, James and Kendall, 2005), mainly because illness can pose a significant burden to patients and their families (Kralik, Visentin and VanLoon, 2006). Every patient admitted to hospital undergoes some form of change in their health status regardless of their age, gender and the type of illness (Al-Yateem and Docherty, 2015). A change in health status triggers a transition process which could either result in enhanced wellbeing or increase the patients’ vulnerability to illness (Meleis, et al., 2000). Although a defining characteristic, in health-illness transition is the individual’s ability to adapt to change (Schlossberg, 2011), nurses play a significant role in promoting positive outcome for patients and their families (Meleis, 2010).

Patient transition has been identified as a vital concept in nursing (Chick and Meleis, 1986) because nurses are primarily responsible for providing care to patients and their family members when they are undergoing transition (St-Louis and Brault, 2011). Furthermore, Watts, Gardner and Pierson (2005) pointed out the role of nurses in preparing patients and their families for any impending transition. Nevertheless, other factors such as environmental and organisational factors could impact on patient transition (Joly, 2015). Therefore, in as much as nurses play a vital role during health-illness transition, the significance of environmental and organisational factors throughout patients’ transition trajectory should not be overlooked.

Meleis, et al. (2000) mid-range theory of transition identified the importance of these factors and included them as the main components within the theoretical framework. Similar to VanGennep (1960), Bridges (2009) and Schlossberg’s (1997) transitional theories, Meleis, et al. (2000) theoretical framework consists of three major domains; nature of transitions, transition conditions (facilitators and inhibitors) and patterns of response, as shown in figure 4.3 on page 103. These domains are characterised by components that describe the elements of the theoretical framework. Nevertheless, Meleis, et al. (2000), pointed out that although these domains are discrete, transitions do not occur in isolation.

**Figure 4.3 Meleis, et al., 2000 Transition Theory**



### 4.3.1 Nature of Transition

Three domains of transition; types, patterns and properties were identified under the component of the nature of transitions (Chick and Meleis, 1986). Meleis, et al. (2000) described four types of transition; developmental; situational; health-illness and organisational transitions. These transition types have a unique attribute and can be measured using different models and frameworks (Bumpus, 2012). Developmental transition pertains to individuals transiting from childhood to adulthood. Situational transition can be a change that pertains to geographical location from one point to another. For example, transitioning from ICU to the ward post-critical illness. Health-illness transition relates to changes that occur due to health and illness or an individual’s response to illness. Organisational transitions are concerned with changing environmental conditions that could affect patients and staff (Meleis, 2007). Within the context of critical care, patients following a period of critical illness certainly experience a period of transition (Ramsay, et al., 2013). However, the type of transition post-critically-ill patients experience may not be exhibited in all the types of transition mentioned above.

Critical illness survivors are transitioned from an area of complex and specialised care to another area of care upon improvement (Haggstrom and Backstrom, 2014; Stelfox, et al., 2013). This type of transition is closely related to health-illness transition and situational transition identified by Meleis, et al. (2000). However, factors such as patient preparation, planning and patients’ attitudes to transition can affect the outcome of patients’ transition (Al-Yateem and Docherty, 2015). A similarity with findings from various studies which revealed that discharge planning is beneficial to the staff, patient and their relatives (Chayober, et al. 2002; Haggstrom Asplund and Kristiensen, 2009). However, nurses should possess the appropriate skills and knowledge required to facilitate the transition process from ICU to the ward following a period of critical illness. The skilled and competent staff echoes the role of organisational factors in the transition of patients. The environment, which includes structures and networks, play an essential role in facilitating patient transition (Chick and Meleis, 1986). An example of organisational input in transitional care is interprofessional collaboration through creating a supportive environment for the patient and their families (Watson, et al., 2006; Harrison, et al., 2010; Piers, at al., 2011; Kross and Curtis, 2012). Therefore, appropriate planning should be initiated, and patients’ involvement, maintained throughout the transitional care period which often begins when clinical decision for the patient to be transitioned from ICU to the ward is made.

Patterns of transitions emphasises on the fact that transition is not a rigid phenomenon as individuals undergoing transitions respond differently. Meleis (2010), stated several patterns individuals can respond to transition, which includes single or multiple, sequential or simultaneous, related or unrelated. The different responses imply that transition can often be complex and multi-dimensional; therefore, people undergoing transitions must be considered individually to identify their specific pattern of transition.

Similar to Bridges (2009) transitional model, Meleis, et al. (2000) emphasised that transition is a personal phenomenon which is often a reflection of the individuals’ involvement in the transition process. Five properties of transition identified by Meleis, et al. (2000) transition theory are awareness, engagement, change and difference, transition time and critical points and events. Awareness pertains to one’s perception and recognition of transition while engagement is the level of involvement an individual undergoing transition demonstrates, which is often influenced by the individual’s degree of awareness (Meleis, et al., 2000). Change and difference occurs as a result of the transition, which may be due to critical events or disruptions in regular routines (Im, 2014). Unlike Bridges (2009), that described transition with time beginning with an endpoint, Meleis, et al. (2000), described transition as a process that may not have any distinct start or endpoint. However, critical points and events such as the onset of an illness, birth of a child, are influential events that signal the start of transition (Meleis, 2010).

### 4.3.2 Transition Conditions

Meleis, et al. (2000) transitional theory identified how some personal factors such as meanings, cultural beliefs and attitudes, socio-economic status, preparation and knowledge could facilitate or inhibit the transition process. Also, community and societal influence are factors that can facilitate or hinder transitions as well through interference with the individual's transition process (Meleis, 2007). These factors influence the individual which has a significant impact on the transition process and outcome. Therefore, it is crucial to consider the individual's cultural beliefs and attitudes, socioeconomic status and availability of social support during transition as this will provide a better understanding of the individuals’ transition.

Furthermore, individuals pattern of response to transition were described as process indicators and outcome indicators. Process indicators are based on the person’s ability to attain a healthy transition or increase in the person’s risks and vulnerability (Ramsay, et al., 2013). These can be expressed through the individual feeling connected, interacting and coping with the new phase of transition while outcome indicators are concerned with individuals’ mastery of new skills and development of integrative identities (Meleis, 2010).Although health and wellbeing are positive outcomes of transition in health theories (Jolly, 2015), arguably, this is not always possible to attain as patients response to health and illness differ considerably.

### 4.3.3 Nursing Therapeutics

Nursing therapeutics is a vital premise identified by Meleis, et al. (2000) transitional theory. The theory reiterates that the primary aim of nursing is to provide care to patients which is often based on nurses’ knowledge and understanding of the patients’ conditions. Nursing therapeutics focuses on the assessment for readiness and preparation for transition (Im, 2014). Effective nursing therapeutics requires a good knowledge and understanding of all the domains of transitional conditions as well as having the right skill to implement measures that will enhance the patients’ transition (Meleis, et al., 2000).

Unlike VanGennep (1960), Bridges (2009) and Schlossberg (1997) theories of transition, Meleis, et al. (2000) theory provided a more comprehensive view on the concept of transition. Also, Meleis (2010) described transition within a particular group of people. Nevertheless, Bridges (2009) theory could still be applied to discuss patients’ transition from ICU to the ward and not every aspect of Meleis theory can be applied. Similarly, because Schlossberg’s (1997) transitional theory focused on the individual and the factors 4S (Self, Situation, Support and Strategies) that affects individual’s response to transition which Meleis, et al. (2000) theory identified. Therefore, a conceptual framework that can be applied to this research will be developed from these theories.

## 4.4 Applying Bridges (2009) Transition Model, Schlossberg’s (1997) and Meleis, et al. (2000) Transition Theory

Schlossberg (1997) identified that transition is defined by the individual experiencing it which implies that transition cannot occur without the individual and the interpretation of transition is dependent on how the individual perceives, interpret and manifests it. Furthermore, the 4S (self, situation, support and strategies) were stated as factors that affect transition (Schlossberg 1997), which again revolves around the individual experiencing transition, and despite emphasising the individual, these factors will affect the individual’s response, interpretation and manifestation of transition. Similar to Meleis, et al. (2000), Schlossberg (1997) identified types of transition however, the types of transition identified varied considerably. For instance, while Meleis, et al. (2000) typology was based on cause of the transition, Schlossberg (1997) based its typology on the probability of an event occurring (anticipated, unanticipated and non-event). However, in the case of post critically ill patients, only the anticipated type of transition identified in Schlossberg (1997) model of transition will be applied as patients following a period of critical illness are expected to be transitioned from ICU to another area of care. Meanwhile, out of the four types of transition identified by Meleis, et al. (2000) transitional theory as shown in figure 4.3 on page 103, only situational and health/illness types of transition will be considered in this study because it focuses on the cause of transition. The type of transition experienced by post critically ill patients is often situational and health/illness in nature which often require them to undergo transition from ICU to the ward because they were critically ill and are now fit to be transitioned to the ward. Transitions from ICU to the ward are often anticipated as patients, their relatives and the healthcare team hope for patients clinical condition to improve so transition will commence. Irrespective of the type of transition, patients’ responses to transition need is not static and can vary considerably; single, multiple, sequential or simultaneous (Meleis, 2010).

Unlike Meleis, et al. (2000) and Schlossberg’s (1997) transition theory, Bridges (2009) transitional model did not consider precipitating factors that initiate transition and individuals pattern of response to transition. These are vital aspects of a patient’s transition from ICU to the ward which should be considered in this study. Furthermore, Schlossberg (1997) transitional theory focused on the concept of self as a determining factor that initiates transition as transition is dependent on how the individual views it. However, Schlossberg (1997) identified that for transition to be effective, there needs to be an interplay between the individual (self) and other factors; situation, strategies and support (Ludin, Arbon and Parker, 2013). In critical care setting, the patient plays a crucial role during the transition as transitions cannot take place without the patient. Patients may not always be able to define their transition due to their situation or health/illness condition so, their clinical condition is assessed to determine their readiness to be transitioned or not. An iteration of the role of self in the transitional process of patients from ICU to the ward as the transition cannot be initiated if the patient’s clinical condition does not permit the process to be undertaken.

Similar to Meleis, et al. (2000) transition model, situation, strategies and support identified by Schlossberg (1997) features these elements that are equally essential in the individual’s transition process. Meleis, et al. (2000) transition theory identified how personal and cultural beliefs, attitudes, socioeconomic status and knowledge as well as the role of community and society could facilitate or inhibit the transition process. Nursing therapeutics is another factor identified in Meleis, et al. (2000) transition theory that can affect an individual’s transition process (Ramsay, et al., 2013). A reflection of the role social support plays during transition as identified by Schlossberg (1997) transition theory which stressed the role of institutional networks in supporting people during transition. Social support plays an essential role in providing emotional, physical and psychological assistance to help mobilise people from their state of uncertainty to certainty (Pendleton, 2007). In the case of patients transitioning from ICU to ward, nurses and other members of the health care team serve as institutional entities that provide support through communication, assessment, observation, documenting and providing follow-ups to facilitate patient transition (St-Louis and Brault, 2011). These measures are necessary to ensure that a patient’s transition from ICU to the ward following a period of critical illness is safe and efficient for the patient and their families.

Nevertheless, the three phases of transition described in Bridges (2009) transition model can be likened to the transition process experienced by post-critically-ill patients; because for transition to be effective, patients should be stable enough to be cared for outside the critical care environment without the need for multiple organ support and monitoring (Crocker and Timmons, 2008). Post transition of patients to the ward, patients gradually becomes accustomed to the ward routines and activities. However, if patients are not adequately managed at this stage, they could deteriorate, thereby requiring readmission to the ICU or even die, which describes the last phase of Bridges (2009) transition model. Haggstrom and Backstrom (2014) justified the fact that patient care should be intensified before, during and post patient transition as these stages play a significant role in the transition process of patients from ICU to the ward. However, as identified in Bridges (2009) transitional model, these stages overlap, and the neutral phase is sometimes silent. In the case of post critically ill patients, the neutral phase of Bridges (2009) transition model goes unnoticed. However, it can be argued that for most critically ill patients, the period of letting go of the critical care environment and trying to adapt to the ward environment can be called the neutral phase identified in Bridges (2009), transitional model.

The first phase of Bridges (2009) transition model (ending phase) is synonymous with the pre-transition stage. Bridges (2009), described this phase as the disconnection phase when the individual dissociates from the previous situation to progress to the next phase. Similar to this notion, the pre-transition phase revolves around measures such as collaboration, support, encouragement and communication in preparing patients for transition to ward-based care following a period of critical illness (Crocker and Timmons, 2008). Therefore, it can be inferred that at this phase, patients’ activities are centred on ensuring patient safety through active collaboration, support, encouragement, and providing information. Following this phase is the intra transition phase which can be likened to the neutral phase of Bridges (2009) model. This phase can be transient with individuals expressing feelings of anxiety and uncertainty about the future. Patients at the intra-transition phase could be struggling with disconnecting from the critical care environment and trying to adapt to the ward environment which can often be distressing for them (Ramsay, et al., 2013).

Nevertheless, if these phases are adequately managed through providing support, collaboration and communicating with the patient throughout the transition process (Crocker and Timmons, 2008), advancing to the next phase could be successful (Bridges, 2003). The last phase (new beginning) identified by Bridges transitional model reflects the post-transition phase when the patient has eventually arrived on the ward. This phase is characterised by the individual’s commitment, acceptance and understanding of the new circumstances. At the post-transition phase, the patient has attained the new beginning, and transition can be said to be complete (Bridges, 2009). However, for post critically ill patients to actively attain this phase, continuous support is required to help the patient adapt to the new clinical environment.

Nevertheless, it is essential to note that transition is cyclical, and depending on the individual circumstances, the process can continue (Im, 2014). The individual can demonstrate a favourable outcome through interacting, developing confidence and demonstrating mastery of the new situation (Bridges, 2009). Transition in this instance can be said to be successful and complete. However, if the individual is unable to demonstrate these attributes, transition could fail and the individual revert to the first stage of the transition cycle.

Nevertheless, Bridges (2009) stressed the role of support and encouragement at every phase of transition. Support and Encouragement echoes the input of therapeutic nursing intervention and institutional support identified in Meleis, et al. (2000) and Schlossberg’s (1997) transitional theory to be implemented throughout the transition process. Similarly, Schlossberg (1997) identified the 4S (Self, Situation, Support and Strategies) as factors that impact on transition as it affects individuals’ response to the transition process. Besides, nursing therapeutics cannot be implemented without involving the individuals involved in the transition process (Meleis, 2010). Therefore, it can be implied that patients and nursing intervention plays a significant role in determining the outcome of a patient’s transition.

## 4.5 Critical Care Patient Transition Model

The Critical Care Patients Transition Model (CCPTM) is a model developed by the researcher using a combination of Meleis, et al. (2000), Schlossberg (1997) transition theory and Bridges (2009) model of transition. It is intended that this model will be adopted in this study rather than using individual theories and model identified earlier in the chapter, because not every element of these theories and model are relevant to the transition of patients from ICU to the ward. So developing this model will help focus on important aspects identified in the theories and models that apply to patients transitioning from ICU to the ward.

The CCPTM, as shown in figure 4.4 on page 116, identified the role of ‘self/individual’ in initiating transition during transitional care. An important aspect of transitional care trajectory as transition cannot take place without the patients’ involvement (Ramsay, et al., 2013; Meleis, 2010). Although some patients may be reluctant to be transitioned, others could be willing to undergo transition. It points to the fact that health/illness transitions are anticipated but can also be voluntary or involuntary depending on the patients’ perception of transition. Within the critical care setting, it is almost impossible to ignore the patient totally, but the transition can sometimes be forced when the patient is unwilling to be transitioned to the ward, especially when clinically indicated. Irrespective of the individuals’ response to transition, the patient is usually involved by considering their clinical parameters to determine their suitability of being transitioned from ICU to ward (McLaughlin, et al., 2007). Therefore, without the patient, transition cannot take place.

Several factors can precipitate transition depending on the context of the transition. Within the critical care setting, transition is often situational depending on the cause of the ill-health which is often precipitated by a compromise in the persons’ health resulting in illness (Stelfox, et al. 2013; Meleis, 2010). The CCPTM identified the main precipitator of transition to be situational and health/illness-related. However, it is essential to note that the manifestation of illness differ significantly based on patients’ response to clinical intervention. Furthermore, the CCPTM acknowledges the concept of ‘self’ in defining and manifesting transition. As shown in figure 4.4 on page 116, transitions can be single, multiple or sequential depending on individual responses.

* Single transition relates to the aspect of transition where post critically ill patients undergo transition from ICU to the ward without deterioration. The risk of readmission to the ICU is reduced in this type of transition, thereby eliminating the tendency of undergoing transition from ICU to the ward severally.
* Multiple transition involves post critically ill patients undergoing transitions severally, especially if they deteriorate and are readmitted to the ICU.
* Sequential transition requires post critically ill patients to undergo transition from ICU to the ward in an orderly manner as deviation could impact on the transition outcome. For example, rather than transferring the patient directly from ICU to the ward, the patient would be transferred from ICU to a high dependency unit and then to the ward.

### 4.5.1 Phases of Transition

The CCPTM identified three phases of transition (see figure 4.4 on page 116); the ending phase (pre-transition), the neutral phase (intra-transition) and the new beginning (post-transition). However, it is important to note that although patients can be admitted to the ICU at the same time with or without similar health needs, they are likely not to have a similar response to transition. Therefore, patients’ response to transition is highly dependent on several factors such as the patient, severity of the transition precipitators and clinical intervention when undergoing the three phases of transition identified in the CCPTM. The CCPTM phases of transitions are discussed below;

#### 4.5.1.1 The Ending Phase (Pre-transition)

The first phase is the ending phase or pre-transition phase, which is characterised by an individual’s disassociation from the previous situation to progress to the next level. At this phase, the patients stability to be stepped down and managed on the ward are considered based on the patients clinical parameters and the managing teams decision to move them to another area of care where they can be taken care of appropriately (Habbstrom and Backstrom, 2014; McLaughlin, et al., 2007). This phase could begin with an ICU discharge plan which includes planning of weaning patients off the critical care environment to prepare them to adapt to the ward environment (crocker and Timmons, 2008; St Louis and Brault, 2011). Also, active collaboration, encouragement, support and communication is required to prepare the patient for the transition process (McDonnell, et al., 2007). However, not everyone moves through this phase at the same time as some could take longer or shorter, and sometime the phase could be unsuccessful. Depending on the patients' response in the presence or absence of these factors, patients could either progress to the next phase, remain at the same phase or even die. It reiterates the fact that transition may or may not be sequential and is not time-bound.

#### 4.5.1.2 The Neutral Phase (Intra-transition)

The second phase of the CCPTM is a latent phase which goes unnoticed without any physical manifestation of the phase. This phase is characterised by a feeling of anxiety and uncertainty about the future as the individual has to let go of old ways of doing things and get accustomed to new ways (Bridges, 2003). This phase could sometimes be difficult to identify because the patient could still be within the critical care environment or on the ward while undergoing this process. However, like the first phase, it is essential to provide support through communication, encouragement and clinical intervention. it is necessary to ensure that the patient does not revert to the previous phase rather, progresses to the next phase of transition.

#### 4.5.1.3 The New Beginning (Post-transition)

This phase can take longer than the other stages described above, and it normally takes place while the patient is on the ward. It is because the patient needs more time to get accustomed to the new environment. The phase begins when post critically ill patients transitions have been successful, and they are on the ward. However, it is important to note that this phase is not static as the individual could deteriorate, thereby requiring readmission to the critical care environment. If the patient recovers, they would be discharged home, but in some cases, patient mortality could be inevitable. So, in any of these instances, rather than such patient reverting to the first phase of transition, the individual will then tilt towards a new phase (death) or can be discharged home. Like in other phases, active collaboration, monitoring, support and therapeutic intervention is required to ensure that patients deterioration is minimised.

#### 4.5.1.4 Clinical Intervention

Throughout the CCPTM, the importance of active collaboration, encouragement, monitoring, support and therapeutic intervention has been highlighted as measures that impact on patients’ transition. This aspects of the CCPTM can be applied within the critical care setting, where post critically ill patients rely on the role of healthcare professionals including nurses in supporting them throughout the transition period (Ramsay, et al., 2013). Nurses play a crucial role along with other members of the healthcare team, but their roles can be summarised thus; assessment, planning, implementation and evaluation of the care provided (Williams, et al., 210). In addition, patients’ family play a vital role as a support unit as well as in facilitating the transition process. Therefore, care provided to post-critically-ill patients are aimed at involving family members in participating in such care as well as improving patient outcome, during the post-transition care period. It can be argued that if an individual defines transition or parameters from the patients are used to define the patient’s transition, the transition process will be unique to the individual and cannot to be applied to every individual undergoing a similar transition. Although patients can be admitted to the ICU at the same time with or without similar health needs, they are likely not to have a similar response to transition. Therefore, it is important to note that patients’ response to transition is highly dependent on several factors such as the patient, severity of the transition precipitators and clinical intervention as identified in the CCPTM.

**Figure 4.4 Critical Care Patient Transition Model**

**Transition precipitators**

Situational Health/Illness

Individual/Self

(Patient)

The new beginning.

(Post transition)

Neutral phase.

(Intra transition)

The ending phase.

(Pre-transition phase)

**Response to Transition**

Single

Multiple

Sequential

**Clinical intervention**

Nursing therapeutics

The patient input

Family input

Institutional support

## 4.6 Summary.

This section has provided evidence of some existing models that relate to patients transition. However, critical evaluation of these theories and model shows that using either of them alone may not adequately describe the concept of patients transition from ICU to the ward-based on nurses experiences. These theories and model are unique, and not every element of the models can be applied to this concept. Therefore, a model based on Meleis, et al. (2000), Schlossberg (1997) transition theory and Bridges (2009) transition model was developed to provide a comprehensive discussion on patients’ transition from ICU to the ward-based on nurses’ experiences.

The CCPTM emphasised on the role of ‘self/individual’ throughout the transition period and how other factors such as transition precipitators, patients response to transition and clinical interventions affect the transitional process of patients following a period of critical illness and throughout the transitional care trajectory. The concept of ‘self’ in transitional care plays a vital role as other aspects such as the transition precipitator, response to transition, phases of the transition process and clinical intervention identified in the CCPTM required throughout the transition process stems from it. Furthermore, the CCPTM emphasised on the uniqueness of transition to the individual undergoing it as no transition is the same. Therefore, the suggested model which underpins and guides the conduct of this study is the CCPTM.

# Chapter Five

# Research Methodology

## 5.1 Introduction

Any research inquiry can be approached in numerous ways based on generally accepted beliefs of the nature of the research (Holzemer, 2010; Holloway and Galvin, 2017). This chapter presents the philosophical underpinnings used in health and social care research. The different philosophical assumptions; positivism, constructivism and pragmatism in health and social care will be discussed first before presenting and justifying the philosophical underpinnings of this study.

## 5.2 Philosophical Underpinning in Health and Social Care

Health and social care research is guided by philosophical assumptions that help to provide an understanding of the research question and the methods used to answer such questions (Taylor, 2014). Although healthcare research can be conducted in different ways, it is crucial to understand the theoretical and philosophical basis on which such research exits (Holloway and Wheeler, 2010). A Philosophical approach is guided by the ‘worldview’ (paradigm) of the researcher and how knowledge can be discovered (Schneider, et al., 2007). Paradigm has been described as a school of thought that shares the same beliefs, values and practices which regulates enquiry within disciplines (Parahoo, 2014). Paradigms encompass a set of principles which gives researchers a general view of the complexities within disciplines by considering the scenery of facts, ways phenomenon can be studied and the suitable designs and methods that can be used to answer research questions based on the researchers’ beliefs of the research (Polit and Beck, 2012; Bunniss and Kelly, 2010). Paradigms provide a link between the nature of a study, the approaches adopted in a study and the most suitable designs required for the study. Nevertheless, some studies have been criticised for the absence of links between the methods adopted and the philosophical underpinning that guides such research (Holloway and Gavin, 2017), which could result in ambiguous research structure and findings due to the absence of relationship between philosophical underpinnings and research methods. Therefore, having a clear understanding of philosophical assumptions will promote the adoption of a paradigm that will be most appropriate for the research aim and methodology used in the research.

Nursing research has been carried out with two main paradigms in mind which are positivism and constructivism. Nevertheless, the questions that nurse researchers ask and the design used to answer such questions are both dependent on the researcher’s world-view (Polit and Beck, 2017). The researcher’s world-view is framed based on the composition of the paradigms they wish to adopt in their study. Paradigms are composed of the following; ontology, epistemology, methodology and methods. Therefore, approaches to research do not only require sampling, data collection and analysis processes (methods) but are engrained in what exists (ontology) and the knowledge of existence (epistemology) (Cormack, 2000; Schneider, et al., 2007). Despite the emphasis on a particular paradigm being adopted in a research project, other elements including methodology, ontology and epistemology should be considered as these generally impact on the researcher’s world-view on a given phenomenon. Thus, subsequent discussions on paradigms will include methodological, ontological and epistemological characteristics as they play a vital role in all research.

## 5.3 The Positivist Paradigm

The philosophical stance exhibited by positivists echoes the traditional quantitative approach of observing, predicting and testing variables under study (Schneider, et al., 2007). Generally, paradigms are differentiated based on assumptions regarding world-view; ontology and epistemology as well as techniques used to acquire knowledge about existence.

Ontology which denotes ‘being and existence’ refers to the positivist’s view that there is a reality out there which can be studied independently on the knower (Taylor, 2014). This implies that there is an existence of reality which can be discovered irrespective of the researcher. Parahoo (2014), identified that the existence of reality is driven by the notion of a cause and effect relationship between variables being studied. This gives positivism its peculiar characteristics of determinism; the belief that events have antecedent causes and are not random (Watson, et al., 2006). Thus, situations do not usually occur in isolation but are often preceded by events and adopt the use of empirical data to explain the phenomenon. However, isolating variables can be difficult as some variables may be obscure, and the researcher may become aware when the effect is obvious. So, it can be argued that the cause and effect relationship that some positivists test gives this approach its empirical characteristics which are often not limited to the context of the study.

Epistemologically, positivists believe in objectivism (Scotland, 2012). Positivists are impartial in discovering knowledge as the existence of reality is independent of human perception, so, personal beliefs and biases are curtailed (Polit and Beck, 2017). Meanings are inherent in the phenomenon being studied and not in the researcher so, and positivists seeks to identify this meaning. The positivist seeks objectivity through the use of empirical data to make a neutral observation of the world (Houser, 2012). Therefore, positivistic knowledge is absolute and factual based on evidence.

The methodology adopted by positivist researchers aims to identify patterns and regularities to explain relationships between any given phenomenon (Holzemer, 2010). Positivists seeks to formulate laws which provide a basis for predicting and generalising findings. Weaver and Olson (2006) identified the use of deductive reasoning such as developing and testing hypothesis often adopted by positivist researchers to facilitate the identification and explain phenomenon under study. In addition, logical and precise numeric data are used to provide verifiable evidence which is obtained through empirical testing, random sampling and controlled groups (Scotland, 2012).

The research methods adopted in quantitative studies relevant to the positivists’ approach seeks to predict and generalise findings (Houser, 2012). So, a large representative study sample is used in this type of research, which gives it the characteristic feature of obtaining generalizable findings that can be applied to settings with similar characteristics. Therefore data collection and analysis are done through standardised tests, questionnaires, observation, descriptive and inferential statistics (Scotland, 2012).

Although the positivist paradigm is still widely accepted and used in the field of research, its views have been widely challenged as being too strict and unrealistic for many types of research (Schneider, et al., 2007). This has led to the emergence of the post-positivist paradigm. The post-positivist paradigm has similar ontological, epistemological and methodological stance as the positivist paradigm, but slight differences also exist. Similar to pure positivists, post-positivists believe in reality and aim to understand it. However, they do acknowledge that achieving total objectivity is impossible because of the uncertainty in knowing reality (Polit and Beck, 2017). Therefore, post-positivists aim to remain neutral and adopt a probabilistic approach when studying the state of any given phenomenon. However, Scotland (2012), identified that post-positivists have similar stance with positivists methodologically as they can adopt experimental or correlational approaches in their research.

Nevertheless, despite the variations in these paradigms; positivism and post-positivism, their advantages of being objective helps to minimise researcher’s bias. However, the use of large study samples required to provide quantifiable data and generalizable findings implies that studies that seek to explore and understand personal experiences cannot be undertaken using this paradigm (Polit and Beck, 2017). Also, the use of this approach is limited by the fact that it does not avail the opportunity to explore individual experiences. This is particularly important within the field of nursing, where patient experiences is essential in evaluating the quality of care they receive. Therefore, there is a need to explore other approaches that can be used to undertake studies that involve lived experiences.

## 5.4 The Constructivist Paradigm

Unlike positivism, constructivism originates from the philosophy and anthropology of human existence (Holzermer, 2010). The constructivists’ view dates back to the nineteenth century when Weber’s Verstehen who rather than imitating the science of human existence emphasised on understanding the lived experiences of human life (Holloway and Wheeler, 2010). Researchers who adopt the constructivist approach equally have different ontological, epistemological and methodological views on how research can be conducted.

Ontologically, the constructivist believes in relativism; reality is not rigid; rather, it is subjective and differs from person-to-person (Parahoo, 2014; Scotland, 2012). They view reality as existing within a context, and multiple interpretations of the context is subjective based on individuals’ world views of the context (Boswell and Cannon, 2014). Polit and Beck (2017) argued that the concept of relativism; different ways of interpreting reality is inherent in the constructivist paradigm as subjective opinion cannot be given without considering the input and explanations provided by the study participants. Furthermore, constructivists believe that different interpretations of reality exist within an individual, and there is no single process in which truth can be identified (Houser, 2010). This implies that reality is inherent in the individual and is mediated by their senses, so there can be numerous realities as individuals.

Epistemologically, constructivists strongly believe in subjectivism; there is no external or objective truth about a phenomenon. According to Parahoo (2014), the constructivist rely on subjective experiences and perceptions of humans to understand and explain a given phenomenon. Therefore, unlike positivists, constructivists believe that the world depends on human knowledge to exist (Scotland, 2012). This implies that the level of human knowledge can affect the interpretation and meaning that individuals can give regarding a phenomenon as meanings and interpretations are derived from the individual’s perspectives. So, considering the differences in the level of human knowledge, there could be various interpretations of a given phenomenon.

Furthermore, the methodological approach adopted by constructivists aims to understand the phenomenon from the individual’s standpoint. This is achieved, through an interactive approach by actively involving and engaging with participants to enable the researcher gain insight and understanding about participants’ views and opinions on a phenomenon being studied (Parahoo, 2014; Creswell, 2009). Therefore, findings are generated based on the outcome of the researchers’ interactions and active engagement of the participants. Some of the methodological approaches used include Phenomenology, ethnography, grounded theory and case study (Scotland, 2012). Nevertheless, these approaches are limited by the fact that findings from such studies cannot be generalised to settings with similar characteristics because views may differ among the participants.

Considering that constructivists focus on gaining an in-depth understanding of the meaning of experience from participants’ perspectives, their method of data collection differs significantly from that adopted by positivists. While positivists use questionnaires and experiments, constructivists engage with the participants through interviews or observation to understand the meaning of a phenomenon from their perspective (Scotland, 2012). The constructivist adopts the principle of inductive reasoning to predict the outcome of a specific observation or study (Polit and Beck, 2017). Also, they are concerned with value-free data thereby focusing on subjective evidence based on participants’ experiences (Gerrish and Lathlean, 2015). Cormack (2000), pointed out that because of the depth of analysis required in qualitative study, small study samples are often required because using large samples is often not practicable. Generally, most qualitative research is often guided by the principle of data saturation (Houser, 2012). Therefore, rather than sample size, constructivists are concerned with the sufficiency of participants to provide adequate information required to answer the research question.

## 5.5 Pragmatic Approach

Choosing a stance in research, either positivism or constructivism is based on the research aim and the question which the research seeks to answer (Teddlie and Tashakkori, 2009). However, the positivist approach cannot be used in studies that explore experiences, perceptions and knowledge (Polit and Beck, 2017). This is because positivists believe in objectivism and realism, so, a phenomenon can be studied irrespective of human knowledge or perception of it (Parahoo, 2014). Likewise, the constructivist approach cannot be used for empirical studies because of its subjective and realistic stance. Nevertheless, some studies may have elements of both positivism and constructivism thus, will require both approaches to be adopted within the study in order to answer the research questions.

Pragmatic research is concerned with combining different approaches within a single study to answer research questions posed in the study (Tashakkori and Creswell, 2007). According to Biesta (2010), pragmatism is outcome-oriented by focusing on the outcome of the research. Polit and Beck (2017) pointed out that pragmatism involves collection and analysis of data as well as integration of findings using qualitative and quantitative approach within a study. This implies that pragmatism contains some element of positivist and constructivist paradigm. The use of pragmatism in research has been advocated due to a growing concern about the ability of a particular approach to sufficiently address the research purpose and questions in socially complex research.

Although pragmatism has been used for decades, it has been difficult to define pragmatism in relation to paradigmatic view. This is because it has been argued that the philosophical underpinnings of qualitative and quantitative studies are not compatible (Polit and Beck, 2017). Discussions around pragmatism claim that paradigms are irrelevant as they offer ideas as to what constitutes knowledge but does not present the significance of a totally encompassing worldview (Biesta, 2010). Therefore, defining the ontological and epistemological stance of pragmatism is almost impossible. However, Shannon-Baker (2016) identified that in adopting pragmatic approach, researchers could maintain subjectivity and objectivity by reflecting on the research and being neutral in data collection and analysis. Also, pragmatists believe that meanings can be embedded within a context, and generalizable findings can be developed if data were analysed for transferability (Morgan, 2007). This implies that a pragmatist approach contains elements of positivist and constructivist views, so it can be argued that these views form the basis for adopting a pragmatist approach.

Nevertheless, the importance of adopting pragmatism cannot be underestimated. A pragmatist approach allows for qualitative and quantitative approaches to be combined in order to complement the strengths and weaknesses they both present (Shannon-Baker, 2016). In addition, pragmatism has been appraised for its collaborative approach within a study that involves qualitative and quantitative approaches as it provides opportunity for inter-subjectivity (Biesta, 2010). In contrast, studies have identified that combining two paradigms in a single study may be incommensurable in reconciling the purpose and scientific underpinning of the paradigms and could provide partial opinion regarding the phenomenon being studied as human mind can only function within a particular paradigm at a given point in time (Weaver and Olson, 2006; Armitage 2007). Furthermore, the pragmatist approach has been criticised for focusing on the knowledge required to answer the research question rather than the philosophical underpinnings of paradigms (Friedrichs and Kratochwil, 2009). However, considering that pragmatism is concerned with what constitutes knowledge rather than presenting a worldview, it can be argued that understanding knowledge can be enriched through pragmatism. The pragmatic approach is practicable because it is not rigid and allows for the flexibility of any methodological tool to be used in a study (Polit and Beck, 2017). Finally, pragmatism improves validity of research findings through its abilities to bridge dichotomies by providing opportunity for alternative evaluation of data and the impact of the context on the research findings (Shannon-Baker, 2016; Morgan, 2007). Therefore, it can be argued that a complex phenomenon that cannot be studied using a single approach can adopt a pragmatic approach to answer research questions.

## 5.6 Mixed Method Approach

In recent times, the use of a single method approach has been highly debated as no single approach to research is enough to study any social phenomenon (Creswell, 2009). This has led to the use of combined approaches to research in order to complement the strengths and weaknesses inherent in using a single approach. A mixed-method research is an essential tool used in nursing research which offers researchers the opportunity to combine qualitative and quantitative approach within a single study (Grove, Burns and Gray, 2013). This approach encompasses the collection, analysis of data and integration of findings through the use of both qualitative and quantitative approaches within a single study (Tashakkori and Creswell, 2007). Adopting a mixed-method approach enhances the validity of research findings through its ability to present findings using multiple strategies embedded within a single study (Polit and Beck, 2012). This study adopted mixed, quantitative and qualitative approaches to data collection and data analysis, which then impacted on the validity of the research findings. Despite the benefit of using a mixed method, it is important to note that this approach cannot fit into every research context. Therefore, the researcher needs to consider certain factors before deciding if mixed methods can be applied to the phenomenon being studied.

Houser, (2012), identified that amidst the numerous factors to be considered, the nature of the research question which a study aims to answer is most important when deciding on the choice of a methodological approach to be adopted. Considering the aim of this research, which is to explore the experiences of Nigerian nurses regarding the transition of patients from ICU to the ward following a period of critical illness. One could argue that this study does not have an element that requires a quantitative approach. Nevertheless, Creswell and PlanoClark, (2007), states that findings from one method of data collection can be enhanced through the use of another method. This was demonstrated in this study as the outcome of the quantitative approach was used to develop the interview questions utilised at the second phase of data collection. This then implies that there are various ways in which mixed method can be applied in research.

### 5.6.1 Types of Mixed-Method Approaches

There are numerous approaches to applying mixed methods. Adopting a mixed-method approach can be traced to Morses’ notation system in which approaches are described based on the degree of dominance of a particular approach within a study (Morse, 1991). This method of classifying a mixed-method approach is still adopted to date. Nevertheless, Creswell and PlanoClark (2007), modified Morses’ (1991) notation approach by including parentheses structure in which a designated approach adopts. Timing and structure are elements identified with impacting on the type of mixed-method design that could be used (Polit and Beck, 2012). As mentioned earlier, qualitative and quantitative approaches are used to complement the strength and weaknesses of each method. Nevertheless, a particular approach can dominate the other (embedded), or both approaches can be used at the same time (concurrent) (Creswell, 2009). There are occasions when a sequential approach can be adopted but, the difference is in the timing of the data collection. If qualitative data collection precedes quantitative data collection, it is referred to as exploratory approach (Holloway and Wheeler, 2010). Unlike the exploratory approach, if quantitative data collection precedes qualitative data collection, it is called the explanatory approach (Tashkorri and Creswell, 2007). Considering the discussions on the different types of mixed-methods presented above, it can be said that this research is embedded in the premise of explanatory approach.

Explanatory mixed-method approach (as shown in figure 5.1 below) is a sequential design that utilises the outcome of quantitative data collected, to develop an in-depth enquiry using a qualitative approach (Polit and Beck, 2012). A significant characteristic of this approach is that data collection and analysis would have been completed before the second phase of the study can begin (Fowler, 2008). This applies to this research, where data collection and analysis was done independently and was completed before the second phase of data collection and analysis commenced. Furthermore, explanatory mixed-method can be used to select sampling method that can be used in the second phase of data collection through the identification of the characteristics of the study population at the first stage (Holloway and Wheeler, 2010). In this research, the first phase of data collection (quantitative) was used to collect demographic data of ICU and ward nurses which then facilitated the purposive selection of ICU and ward nurses that participated in the second phase of the study.

**Figure 5.1 Illustration of Explanatory Mixed-method Design**

Quantitative

Qualitative

Data analysis

Data collection

Data analysis

Data collection

Presentation of findings

## 5.7 Justification of Underpinning Philosophy of the Study

This study explores nurses’ experiences of safe patient’s transition from ICU to the ward in Nigeria. A pragmatic approach was adopted in this study as the researcher was concerned with gaining an understanding of nurses’ views on patient transition from ICU to the ward in Nigeria. This meant that rather than the researcher dwelling on epistemological and ontological stances, the researcher focused on ways in which evidence to answer the research questions can be generated. Although, one could argue that studies which seek to provide an in-depth analysis on a viewpoint sits more on the constructivist paradigm. However, critical evaluation of existing literature around patient’s transition revealed a dearth of knowledge within the Nigerian healthcare system about a patient’s transition. Also, Creswell and PlanoClark (2007) stated that relatively new concepts could be best explored using multiple approaches, and findings from one study can be developed and further explored using a different approach. So, considering the limited information regarding patients transition from ICU to the ward in Nigeria, a pragmatic approach was considered best to grasp Nigerian nurses’ opinion on patients transition from ICU to ward. Therefore, this study adopted a mixed method approach which combines the positivists as well as the constructivist view.

Considering the purpose of adopting a mixed method approach in this study, an explanatory mixed method approach was considered to be appropriate for conducting this research. Explanatory mixed-method approach is a sequential design that utilises the outcome of quantitative data collected, to develop an in-depth enquiry using a qualitative approach (Polit and Beck, 2012). This approach allows for data collection and analysis to be completed quantitatively, and its findings used to inform the qualitative study. Adopting an explanatory mixed-method approach in this study echoes the complementary and collaborative characteristics of pragmatism (Scotland, 2012). This was achieved in this study as findings from quantitative study were explored in details qualitatively, thereby, avoiding the limitation of a single study approach. Therefore, this study was conducted in two stages; stage one was the quantitative data collection and analysis, while stage two was qualitative data collection and analysis.

A practical approach which meant that a quantitative study preceded the qualitative study was adopted in this study. Although one can argue that the qualitative approach seems better than quantitative method in exploring nurses experiences of patients transition from ICU to the ward. However, because little is known about this concept within the Nigerian healthcare setting so, gaining a general overview of nurses’ opinions of patient’s transition from ICU to the ward-based on their experiences was very important. In order to achieve this, the researcher relied on some of the principles guiding positivism; objectivity and statistical analysis (Scotland, 2012). However, because the primary aim of using a quantitative approach initially was to gain an overview of the concept of a patient’s transition from Nigerian nurses’ perspective, correlational or hypothesis test was not required. The underlying philosophy of using a quantitative approach in this study was concerned with the researcher being independent of the participants, and to a great extent, it does not influence the findings to minimise bias. Although quantifiable data were obtained, the findings were not required to be generalisable instead, was used to gain an overview of nurses experiences of patients transition from ICU to the ward in Nigeria.

Another aspect of pragmatism that underpins this study is constructivism; realism and subjectivity (Holloway and Galvin, 2017), which was used at the 2nd stage. This is because the researcher acknowledged that nurses’ experiences of patients transition from ICU to the ward differs significantly and that nurses experiences and knowledge of transition was required to define and explore the concept of transition. The researcher actively engaged with the participants through a constant interaction and focusing on their views and perceptions regarding patients’ transition from ICU to the ward. Also, the sample size was an essential factor as the researcher was concerned with subjective information-rich data, so a small manageable but also scientifically robust sample was used. Adopting this approach, provided an in-depth understanding of the concept of patients’ transition based on participants’ experiences.

## 5.8 Summary

Understanding the underpinning philosophy of any study is vital in grasping the theoretical and philosophical basis of such study. This chapter has presented and discussed the different philosophical assumptions such as positivism, constructivism and pragmatism guiding health and social care research. Also, justification for the scientific basis and methodological approaches (pragmatism) adopted in this study has been provided. Having understood the reasons for adopting a mixed method approach, the subsequent chapter will describe how the research was carried out.

# Chapter Six

# RESEARCH METHODS

## 6.1 Introduction

In this chapter, the practical aspects of carrying out the research will be outlined. This is essential in helping to ensure that measures were taken to maintain transparency that will, in turn, influence the trustworthiness of the research. To achieve this, the research objectives are provided to remind the reader of what the research aims to achieve. Also, the various processes undertaken throughout the research process will be discussed. Firstly, an overview of how the data collection instrument was developed and an account of how the pilot study was conducted will be provided. Subsequently, the sampling, recruitment, data collection and data analysis methods used will be addressed. However, because this study adopted a mixed method approach, as discussed in the previous chapters. These methods will be discussed in two stages; first and second. This chapter concludes by presenting an account of ethical issues considered in this study and justification about how scientific rigours were maintained throughout the study. The research objectives are;

* To provide a clear description of patients’ transition processes based on ICU and ward nurse’s experiences.
* To explore participants view on the group of healthcare professionals involved in the transitional care of patients from ICU to the ward.
* To identify ICU and ward nurses perspective of factors affecting transitional care of patients from ICU to the ward in Nigeria.
* To explore participants’ views on measures that can be implemented to improve patient’s outcome following a period of critical illness.

## 6.2 Stage 1

This stage adopted a quantitative approach because an explanatory mixed method approach which entails collecting and analysing the quantitative data before qualitative data collection and analysis is commenced. This section discussed the sampling methods used at the first stage under the following headings; Sample size and sampling method, identification of participants, data collection and analysis.

### 6.2.1 Quantitative Sample Size and Sampling Method

The principle of sample size in quantitative research is guided by its need to generate generalizable findings (Nieswiadomy, 2012). Determining the sample size that represents the study population is essential to ensure that findings from the research can be applied to settings with similar characteristics. LoBiondo-Wood and Haber (2014) stated that statistical power is a method used to determine the sample size required in a study. Grove, Burns and Gray (2013) pointed out that power is the deciding factor that determines sample sizes in experimental and correlational studies, which can be challenging. However, this was not the case in this study since the questionnaire was primarily intended to obtain descriptive demographic data and develop questions to inform the qualitative interview phase. A logical approach suggested by Parahoo (2014), which involves identification of the study population and selecting samples that is representative of them was then used. This was achieved by first deciding the number of nurses working in the ICU and wards where the study would be carried out. The hospital where this study took place had 30 ICU and 150 ward nurses so, a sample size of 20 ICU and 80 ward nurses were then considered reasonable to be used for the study.

Sampling is a crucial element of every study as it provides the basis on which findings can be developed. Macnee and McCabe (2008) viewed sampling to be necessary for understanding results from either qualitative or quantitative studies or both. Sampling encompasses the identification, selection and gaining access to potential units required in a study (Holloway and Wheeler, 2010). Although quantitative sampling seeks to address subjects that are capable of providing data that will help answer the research question (Maltby, et al., 2010), Grove, Burns and Gray (2013) argued that the likelihood of it being representative of the target population is limited by the fact that not every element of the population has the opportunity to be selected. Therefore, the sampling techniques used in a study should be suitable for the study in order to remove irrelevant variables.

Considering that this study aimed to explore the experiences of Nigerian nurses regarding patients’ transition from ICU to the ward, it was logical to include only ICU and ward nurses who could be knowledgeable about the study under investigation on both sides of handling the patient transition. As a result, a purposive and convenient sampling methods were both used in this study because not every nurse working in a Nigerian hospital would be able to illustrate the phenomenon being surveyed. Convenient sampling was used to ensure that patients care was not interrupted, so participants were interviewed when it was convenient for them and their patients. Also, these sampling methods are thought to be effective when intended study participants are difficult to access (Houser, 2012). Adopting a purposive and convenient sampling method helped to facilitate the identification of potential participants; ICU and ward nurses required for the study. However, strict inclusion criteria was set to ensure that participants involved in the study posses the characteristics required for the research.

### 6.2.2 Inclusion criteria for quantitative study

* The participant must be a Nigerian registered nurse with or without additional qualifications to be included in the study.
* The participant must be employed at MTH as a registered nurse on a permanent contract.
* The participant must be working in the ICU/ward at MTH.
* The participants must be working on an adult ward where post critically ill patients are often discharged to.
* Participants included in the study would have previously been involved in the transition process of patients from ICU to the ward. This is because the study intends to explore ICU and ward nurses experiences of patients transition from ICU to the ward following a period of critical illness, so their experience of transition is essential.

### 6.2.3 Identification of Study Participants for Quantitative Study

Identifying eligible study participants and inviting them to participate in a study are the two major challenges researchers face at the recruitment phase (Polit and Beck, 2012). However, Parahoo, (2014) suggested that these tasks can be solved by researchers being precise about the best source of their potential participants. This was achieved by identifying the study population and ensuring that accessing the intended participants when necessary would not be difficult. As stated earlier, the study was conducted in a tertiary teaching hospital in southern Nigeria. Thus, all nursing staff working either in the ICU or wards where post critically ill patients are admitted to were potential participants for the study.

A gatekeeper is described as a staff working at a research site which stands between the researcher and potential participants (Polit and Beck, 2012). Gatekeepers are responsible for controlling access to participants and in most cases, useful in facilitating research (Gerrish and Lathlean, 2015). The gatekeeper used in this research facilitated quantitative data collection by distributing and retrieving the questionnaire on behalf of the researcher. This was because questionnaires were used for data collection, so, the physical presence of the researcher was not necessary. To achieve this goal, a nurse working in the hospital and the ward matrons were involved at this stage. The nurse facilitated the data collection by conducting this phase of data collection on behalf of the researcher. Also, the nurse collaborated with the ward matron in order to gain access to potential participants. This helped the nurse to gain information about the best way to access the potential study subjects. Participants were eventually identified during their usual shift duties and confirmed if they were nurses working on that ward and if they would like to participate in the study. This phase lasted for over a month, which maximised the chances for all potential participants to take part in the study.

Subsequently, questionnaires were distributed to all potential participants identified for the study in their usual wards or unit on a one-to-one basis. Information about the research was written on the Participant Information Sheet (PIS) and was handed over to each potential participant before seeking informed consent. The PIS contained detailed information about the research, including the participants’ and researchers’ role in the study. This was done to ensure that participants were fully aware of the research aim, benefits of the research, any potential and/or actual risks associated with the research. Questionnaires were completed and returned anonymously, so consent was implied by return of the questionnaire. Furthermore, participants were informed of their right to withdraw at any stage of the research. However, their right to withdraw from the study was limited until the point before submitting their completed questionnaire. This was because once the questionnaire has been submitted, it will be impossible to identify any particular respondents’ questionnaire since the questionnaires are anonymous. Similarly, contact details of the researcher, supervisors and local ethics committee chairman where the study was conducted were provided in the PIS. The reason for this was to promote participants’ confidence in the genuineness of the study. Therefore, if in doubt, the contact details will provide access to people who could clarify any doubts.

### 6.2.4 Quantitative Data Collection

This section deals with the process of gathering information on the concept of safe patient transfer from ICU to ward from the respondents. Data collection involves a systematic approach to gathering precise information required to answer specific research questions. (Boswell and Cannon, 2014). There are several methods of collecting data, including tests, questionnaires, interviews, observations and focus groups. However, the choice of data collection method depends on the type of research and the research aim. So considering that this research seeks to gain an overview of Nigerian nurses experiences of patients’ transition from ICU to the ward and findings used to inform the qualitative phase, the questionnaire was used to collect quantitative data.

### 6.2.5 Developing the Questionnaire

A questionnaire is an instrument that contains questions relating to a study which respondents are invited to complete and return (Polit and Beck, 2012). Questionnaires are generally useful in research as they enhance the collection of quantifiable self-report data (Malthy, et al., 2010). However, the choice of using questionnaire was made based on these reasons and also to gain a general overview of a larger sample of Nigerian nurses’ opinion regarding the concept of patient transition from ICU to ward-based care.

Designing and developing a questionnaire requires skilled expertise (Boswell and Cannon, 2014). This is because the questionnaire needs to reflect the critical issues identified in the study in order to answer the research question. However, it is essential to note that because the aim of adopting this quantitative study was not to answer the research question but to inform the design of the interview schedule. So, a thoughtful, systematic approach was required to ensure that the questionnaire reflects the key elements identified in the research question. Although there is no stringent rule regarding the development of questionnaires, questionnaires can be developed through reviewing relevant literature, engaging with potential participants or consulting with experts in the field of enquiry (Gerrish and Lathlean, 2015). Review of the literature relating to the concept of patient transition revealed that most of the studies carried out in this field did not adopt a survey approach to data collection (Haggstrom and Backstrom, 2014; Chayober, et al., 2008; Endacott and Chayober, 2006). So, a new questionnaire had to be developed since there was no already existing or tested questionnaire which meets the need of the quantitative stage of the study.

Moule and Goodman, (2014) pointed out that the start point of any questionnaire development begins by determining what aspects and issues are to be investigated. Having considered the aim of carrying out the survey, (which is to generate questions that will inform the second phase of the data collection), particular attention was paid to questions to ensure they achieved the research aim. Furthermore, Bowling and Ebrahim (2005) suggested that adopting a multi-item scale approach; a combination of consultation of experts, literature reviews, and engaging with potential respondents gives a more credible framework to questionnaire development. As a result, other factors such as what to include and who should be involved in the development of the questionnaire were put into account during the development of the questionnaire. Questions included in the questionnaire were drawn from key issues identified in the literature. Decision of questions included in the questionnaire was guided by the fact that the questionnaire alone would not be used to answer the research question, but to inform the second stage of data collection. In addition, the draft of the questionnaire was amended by the supervisors of the study, who in this case, can be regarded as experts in the field of study.

### 6.2.6 Structure of the Questionnaire

Although the effectiveness of questionnaires in collecting data from a large study population have been appraised (Parahoo, 2014), appropriate study samples must be targeted (Houser, 2012). This is to ensure that the right questions are asked and data is collected from the right respondents. In a study that would involve two distinct groups of respondents with the same fundamental professional background, the question was structured to address the distinction within the respondents. This is in line with Houser (2012), who states that questionnaires should be structured to address different categories and characters of respondents. Thus, two questionnaires were produced; one targeting ICU nurses while the other focused on the ward nurses. Structuring these two different questionnaires ensured that accurate information about the concept of patients’ transition from ICU and ward nurses were obtained. Also, the questions contained in the questionnaire were different for both the ICU and ward nurses. An example of an ICU question was;

* What key pieces of information do you communicate to ward nurses during transition?

While an example of ward question was;

* What are the key issues to consider when receiving patients on the ward post ICU discharge?

This implies that using the same questionnaire for both ICU and ward nurses would not have achieved the aim of this stage of the research. However, because of the difference in the sample size (20 ICU and 80 ward nurses), fewer ICU questionnaires were produced compared to the ward questionnaire.

The questions contained in a questionnaire can vary; open or closed, depending on what the researcher aims to achieve (Polit and Beck, 2012). The questionnaire used at this stage for both the ICU and ward nurses contained open and closed questions. Using open-ended questions allowed participants to express their views in their own terms regarding the concept of patient transfer from ICU to the ward. This was essential in facilitating the qualitative data collection phase as it informed the design for the interview schedule. While closed questions were used in a specific part of the questionnaire, especially the demographic aspect to curtail the participants’ responses, open-ended questions were used to encourage participants to provide unobstructed views. However, in such occasions where closed-ended questions were used, specific range as well as the option to specify their views if not included in any of the range provided. Nevertheless, this is very unlikely as the range provided cuts across the characteristics of the respondents.

Another aspect that needs to be considered when structuring a questionnaire is the length of the questionnaire. Although having a long or short questionnaire may not provide the appropriate information needed to answer research questions (Holloway and Wheeler, 2010). There is no specified number of questions that should be in a questionnaire. So, it is logical for questionnaires to be short and precise in order to minimise any burden on the respondents’ thereby encouraging response. Each of the questionnaires (ICU and ward) were divided into two sections; section one contained the demographic questions while the second section asked general questions allowing participants to share their experiences of transferring patients between ICU and the ward. Brevity was maintained as the questionnaire had a total of 12 and 11 questions for the ICU and ward nurses respectively. In order to ensure that the questionnaire developed met the above-listed criteria, it was tested using a pilot approach.

### 6.2.7 Pilot Study

A pilot study involves a smaller portion of the proposed study sample (Houser, 2012). The importance of conducting a pilot study has been linked to its effectiveness in testing a research plan, data collection methods and data analysis approaches (Parahoo, 2014; Gerrish and Lathlean, 2015). The primary purpose of conducting a pilot study is not to answer the research question, (Polit and Beck, 2012) but, to prevent the researcher from conducting a large study that is flawed which may affect the validity of the study (Nieswiadomy, 2012; Grove, Burns and Gray 2013; LoBiondo-Wood and Haber, 2014). Considering the importance of pilot studies and their role in minimising the risk of producing a less valid study, the questionnaire was piloted. The pilot study was conducted to evaluate respondents’ (nurses’) understanding of the wording, format and the relevance of the questionnaire which in turn helped to assess the feasibility of the full-scale study. Similarly, piloting the questionnaire helped to assess whether the length and structure of the questionnaire was likely to affect the response rate. Although pilot studies are not aimed at answering research questions (Polit and Beck, 2012), it can be argued that pilot studies can be used to predict the outcome following data collection, through its ability to identify possible flaws that can affect the feasibility and acceptability of the full-scale study. This generally helps to provide clues about the suitability of the research process and data collection tool in answering the research question. Therefore, data obtained from piloting was used to assess the adequacy of the questionnaire in exploring Nigerian nurses’ experiences of patients’ transition from ICU to the ward.

Piloting was commenced and concluded within one month, among 10 Nigerian registered nurses who were resident in the UK, but with experience of ICU and ward-based care. These nurses were studying in the UK and did not have exposure to UK clinical setting because they were not UK registered nurses so were not allowed to practise in the UK. Piloting the questionnaire deliberately avoided using participants that are intended to be part of the main sample. This is in line with Nieswiadomy’s (2012) view that pilot studies can be conducted on a sample with similar characteristics to the sample that will be used for the main study. Using Nigerian registered nurses currently living in the UK helped to reduce bias among the participants as they would have been aware of the content of the questionnaire before the commencement of the actual data collection process. This, in turn, may have influenced the outcome of the main study as participants having known the content of the questionnaire may have rehearsed their responses to the questionnaire. In addition, it reduced the risk of losing potential participants in that using the same participants for the pilot, and actual study could reduce their interest in participating in the main study.

Having piloted the questionnaire, the outcome yielded a positive response as all the ten questionnaires distributed were completed and returned. These questionnaires were analysed with special attention on respondents’ views regarding the length, structure and the overall format of the questionnaire. Piloting the questionnaire was particularly helpful in eliminating the researchers’ value position, which could be interpreted differently by respondents (Parahoo, 2014). In other words, creating a different impression which can affect the overall outcome of the full-scale study. Nevertheless, the respondents demonstrated an overall understanding of the questionnaire, which meant that the structure and format of the questionnaire was suitable for the research. This implied that the set goal for piloting the questionnaire was achieved so, the questionnaire did not require any changes and was then used for the main study.

In conclusion, it was intended that the questionnaire will be used primarily to obtain demographic data of the potential participants (Nigerian ICU and ward nurses). Also, the outcome of the questionnaire was used to inform the second phase of data collection (interview) as data gathered at the first stage was used to develop questions for the interview. The essence was to keep the researcher in check; to ensure that nurses were interviewed based on their level of experiences of patient transfer from ICU to ward-based care.

### 6.2.8 Quantitative Data Analysis

Data analysis is a crucial phase of any research that involves compiling and interpreting data in such a way as to draw conclusions and facilitate the process of providing answers to research questions (LoBiondo-Wood and Haber, 2014). Although there are various ways of analysing data (Holloway and Wheeler, 2010), data can generally be analysed quantitatively or qualitatively (Boswell and Cannon, 2014). However, the data analysis method used should be able to assemble and organise data in such a way as to allow the researcher to draw conclusions from them (Nieswiadomy, 2012). Considering the type of study that was undertaken (mixed method approach), data analysis was done in two phases. Statistical Package for Social Sciences (SPSS) version 20 was used for the quantitative data while qualitative data was analysed using thematic analysis. These data analysis methods were used in order to effectively compile and interpret data within the context of a mixed method approach. This section will discuss the quantitative data analysis method only while the mixed method approach will be discussed in the subsequent section.

### 6.2.9 Method of Data Analysis

As mentioned earlier, the questionnaires were analysed using SPSS version 20. SPSS is a computer software used for the collection and analysis of data in a manageable form (Greasley, 2007). Similarly, SPSS has been identified to be useful in analysing descriptive quantitative studies (Marston, 2010), which is the primary reason why the quantitative study was carried out. Descriptive statistics provides information about data without necessarily comparing the variables (Grove, Burns and Gray, 2013) so, the variables in this study were not considered and their relationships not tested. Therefore, the data analysis method used in this study was a descriptive statistical analysis.

### 6.2.10 Data Entry

A spreadsheet was developed initially, which allowed the data obtained to be coded and stored. This was done to provide a trace of how variables were named and coded on the SPSS. Similarly, Greasley, (2007), stressed that the link between the questionnaire and data contained on an SPSS could only be identified through a data coding sheet. The data coding sheet is necessary to clarify missing data or data that does not apply to a particular variable. Having entered all the data into the data coding sheet, it was easier to commence data entry onto the SPSS. The questions in the questionnaire were entered as variables, while the responses were coded and inputted into the data view section on the SPSS.

The SPSS used for the analysis like other statistical packages is made up of cells; columns and rows. The different variables were input on the columns while the rows contained the corresponding data of the variable. After all the data were input into the SPSS, data checking was done to minimise or eliminate any potential errors or omissions. Mistakes in recorded data are not uncommon and can occur at any stage of the research process (Polit and Beck, 2012). However, it is advisable at this stage to check for errors after the data has been entered on the SPSS because data analysis is done electronically (Marston, 2010). Data checking was done by considering all the rows and columns as well as any missing or any implausible values. This was facilitated by comparing the data on the SPSS with the information on the questionnaire using the data coding sheet.

## 6.3 Stage 2

A qualitative approach to research was adopted at this stage. Firstly, a reminder of the research objectives is provided while the subsequent section is discussed under the following headings; sample size and sampling methods, identification of participants, data collection and analysis.

### 6.3.1 Research Objectives

* To provide a clear description of patients’ transition processes based on ICU and ward nurse’s experiences.
* To explore participants view on the group of healthcare professionals involved in the transitional care of patients from ICU to the ward.
* To identify ICU and ward nurses perspective of factors affecting transitional care of patients from ICU to the ward in Nigeria.
* To explore participants’ views on measures that can be implemented to improve patient’s outcome following a period of critical illness.

### 6.3.2 Qualitative Study Sample Size

Unlike quantitative research, sample size in qualitative research does not seek to obtain generalizable findings (Holloway and Wheeler, 2010) but to obtain high-quality data (Gerrish and Lathlean, 2015). Although no set rules are guiding the determination of sample size in qualitative studies (LoBiondo-wood and Haber, 2014). Sample sizes in qualitative research are generally determined based on the research purpose and the depth of information required to describe a phenomenon under study (Malthby, et al., 2010). The purpose of this research which was to explore ward and ICU nurse’s experiences of patients’ transition following a period of critical illness, was considered. This informed the decision to interview 14 participants initially. However, because there were fewer ICU nurses than ward nurses, 3 ICU and 11 ward nurses were initially interviewed. Although there is no stipulated approach to determining the required number of participants required in a study. Sample size remains a significant aspect in qualitative research as very small samples could impact on the depth and quality of data collected (Grove, Burns and Gray, 2013). Conversely, very large sample size does not guarantee that an in-depth and high-quality data will be obtained (Gerrish and Lathlean, 2015). In order to estimate the sample size required in qualitative studies, Polit and Beck (2012), suggests that the principle of data saturation should be used. Sampling continued with additional 2 ICU and 2 ward nurses. Data saturation was confirmed when no new information was obtained having interviewed 18 participants. A total of 18 nurses (5 ICU and 13 ward nurses) were included in the second phase of data collection.

### 6.3.3 Qualitative Study Sampling Method

Qualitative research aims at discovering meaning and gaining understanding. So, sampling methods in qualitative research should reflect its ability to obtain information-rich results (Macnee and McCabe, 2008). There are various sampling methods; purposive, convenience, snowballing and theoretical, which are commonly used in qualitative studies (Polit and Beck, 2012). However, purposive, convenience and snowballing sampling methods were used in the qualitative stage of the study. Purposive sampling is the selection of study participants based on their relevance in meeting the aims of the research (Parahoo, 2014). The focus of purposive sampling is to identify potential information-rich participants that can provide valuable rich information to the researcher (Nieswiadomy, 2012). Unlike, purposive sampling, convenience sampling is concerned with ease of the researcher to gain access to potential participants (Houser, 2012). So, convenience sampling is often adopted to enable the researcher, and potential participants engage in the data collection process in the most convenient way. Conversely, snowballing adopts a referral system whereby participants are asked to refer other people whom they know will contribute to the study (Holloway and Wheeler, 2010). These sampling methods can introduce bias which may affect the transferability of the findings (Polit and Beck, 2014). However, the decision to select participants based on these sampling methods was made because ICU and ward nurses who have experienced patient transition from ICU to the ward was required. Also, data collection should be done at a convenient time for the researcher and participants so, because of the clinical setting, convenient sampling was required to minimise disruption of patients care. Considering that the study explores nurses’ experiences of patients’ transition, snowballing was used to ensure that participants who had a long working experience of ICU and ward care participated in the study.

Although patient transition often requires a multidisciplinary approach, evidence from the literature show that nurses play a crucial role in patient transition (Ramsay, et al., 2013; Haggstrom and Backstrom, 2014). Therefore, it was pertinent to include only nurses in the study in order to explore how their experiences would impact on patients following a period of critical illness. Nevertheless, a detailed description of the sampling methods used in this study; purposive, convenience and snowballing is provided in the subsequent section.

### 6.3.4 Inclusion criteria for Qualitative study

* The participant must be a Nigerian registered nurse with or without additional qualifications to be included in the study.
* The participant must be employed at MTH as a registered nurse on a permanent contract.
* The participant must be working in the ICU/ward at MTH.
* The participants must be working on an adult ward where post critically ill patients are often discharged to.
* Participants included in the study would have previously been involved in the transition process of patients from ICU to the ward. This is because the study intends to explore ICU and ward nurses experiences of patients transition from ICU to the ward following a period of critical illness, so their experience of transition is essential.
* Participants may or may not have been involved in the survey part of the study.

### 6.3.5 Recruitment of participants for Qualitative Study

Participants at this phase were recruited through two routes. Firstly, every participant involved in the first phase of data collection were given the opportunity to take part in the interview phase. This was done through the debrief letter that accompanied every questionnaire. In the letter, nurses who participated in the first phase and interested in taking part in the interview phase were encouraged to contact the researcher. This was done to enhance the process of purposive sampling and facilitate the process of data collection in the second phase. However, none of the participant (from ward and ICU) contacted the researcher to be interviewed. Since this method did not achieve the desired number of participants, the second route was then used to recruit all the participants who took part in the study.

The second route used a combination of purposive and convenience sampling method to identify potential participants who have the required experience to contribute to answering the research question around patients transition from ICU to the ward. In order to identify the potential participants, the wards where patients are transferred to after discharge from the ICU were first identified. The researcher collaborated with the ICU matron who helped to identify wards where patients were usually transferred to after discharge from the ICU. A total of 6 wards, including the ICU, were identified, which represents the sample frame used in the study. The researcher recruited nurses during their official working hours in order to avoid encroaching into their personal time. However, care was taken to avoid disrupting their usual work routines. In order to achieve this, the researcher collaborated with the ward and unit matrons, who then arranged to relieve them of their nursing roles during the period the interview was done. In addition, the interview was rotated around the various wards and unit involved so that only one person was interviewed from a particular ward each day. However, because the matron only worked on weekdays, the interviews were done between Monday and Friday and lasted for six weeks. All potential participants were provided with stage two PIS and were allowed to clarify any misunderstanding before deciding to participate in the interview.

### 6.3.6 Qualitative Data Collection

In-depth semi-structured interview was used to obtain data at this stage. Interviewing is a data collection method that allows researchers to interact with study subjects directly either on a face-to-face basis or through the phone (Nieswiadomy, 2012; Houser, 2012). Conducting an interview is a rigorous process used to explore specific phenomenon such as experience, attitude and perception (Polit and Beck, 2012). This justifies the need to have adopted an interview approach to data collection as the study aimed to explore nurse’s experiences of patients’ transition from ICU to the ward. Interviews can be structured, unstructured or semi-structured (LoBiondo-Wood and Haber, 2012). However, the difference in these types of data collection method is on the type of data the researcher intends to collect.

Structured interview is used when direct factual information that can be compared across study participants is required (Nieswiadomy, 2012). In order to achieve this, the interviewer uses already planned questions to guide the interview (Parahoo, 2014). Although this method of interview has been argued to increase researchers bias (Creswell, 2009), it is useful in guiding participants’ responses to prevent them from deviating from the main point (Gerrish and Lathlean, 2015). On the contrary, unstructured interview adopts an open-ended question that allows the respondents to provide detailed information about a given concept (Boswell and Cannon 2014). This type of interview is used in exploratory studies, where the researcher has little knowledge about the topic (Nieswiadomy, 2012). Thus, participants’ perspective regarding the concept under survey is explored (Moule and Goodman, 2014). This gives unstructured interviews its main characteristic feature of being a discursive approach to data collection. Although unstructured interview is effective in providing in-depth information (Gerrish and Lathlean, 2015), there is a risk of it diverting out of context (Houser, 2012). Semi-structured interview has some element of structured and unstructured approach to data collection. Interviewers could have predetermined questions which could be open or close-ended (Creswell, 2009). This type of interview allows for exploration, and the questions can be altered based on the respondents’ position of response (Holloway and Wheeler, 2010). Irrespective of the type of interview used, it is essential for researchers to develop interview skills that will enable them to address the research purpose.

This research adopted a semi-structured interview approach to obtain data from participants. The researcher was interested in understanding the safe transition of patients from ICU to ward-based care based on nurses’ experiences. Therefore, the need to explore ward nurses and ICU nurse’s opinion on the concept of patient transition from ICU to the ward was imminent. Semi-structured interview is thought to be ideal in ascertaining ICU and ward nurses’ views regarding what constitutes a safe transition process. Furthermore, this approach enhanced the interview approach by ensuring that responses were curtailed within the required framework. Also, it offered the researcher the flexibility of being in control of the interview, while allowing the interviewee to provide their explicit view regarding the phenomenon being studied.

Despite the benefits of using a semi-structured approach, several factors need to be considered in order to maximise its effectiveness. According to Gerrish and Lathlean, (2015), the interviewer needs to establish rapport with the participant in order to reinforce trust among participants and encourage them to talk freely about the phenomenon being studied in their own words. Furthermore, the questions need to be clear and logical in such a way as to capture participants’ interest in the interview session. In order to achieve these, the questions were divided into sections beginning with an introduction, opening question before asking the main questions. Questions were asked sequentially with care taken to avoid asking leading questions in order to minimise bias. There were times when the researcher needed to clarify specific points made by the interviewee. Robson, (2011) identified the use of prompts as a way of encouraging participants to expand on a particular point that was not well understood. Similarly, prompts can be used to help participants re-engage in the interview. An example of prompt used in this study was: Have you ever been involved in patients’ transition; that is patients moving from ICU to the ward? However, having an interview guide is an essential component in adopting a semi-structured approach to data collection (Creswell, 2009). An interview guide was developed before the interview was done based on the findings from the quantitative study. Using the interview guide helped to facilitate the interview process.

### 6.3.7 Developing the Interview Guide

Questions in an interview guide can be generated from literature or experts within the field of enquiry (Grove, Burns and Gray, 2013). The purpose of carrying out the qualitative study was to provide an in-depth exploration of patients transition from ICU to the ward in Nigeria based on the finding from the quantitative study so, and the interview questions were developed based on the outcome of the first phase of this study. In addition, literature around the concept of patient transition was used to ensure that essential aspects were covered. It is not uncommon for interview guides to be divided into sections as it enhances the logical flow of questions (Holloway and Wheeler, 2010). The interview guide used in this study was divided into three sections: background information (warming questions), main questions, and concluding questions. Dividing the questions into these sections helped to ensure that questions were asked at the appropriate time, as inappropriate timing of questions can disrupt the flow of interview (Gerrish and Lathlean, 2015). Wording and tone of questions are important factors that should be considered when developing an interview guide (Moule and Goodman, 2014). Prejudicial language such as asking questions that insinuate incompetence were avoided in order to prevent hurting the participant. The guide contained open-ended questions which allowed participants the opportunity to provide an in-depth opinion regarding patients’ transition from ICU to the ward. Having developed the interview guide, feedback from the supervisors of the research was sought in order to ensure that the intended outcome would be met. However, as the interview progressed, other questions were generated based on the participants’ responses which then facilitated the exploration of Nigerian nurses’ experiences of patients’ transition from ICU to the ward.

Two different interview guide questions were developed for ICU and ward nurses, respectively (see appendix 8). This was done to ensure that the interview guide focused on the intended group of participants; ward and ICU nurses involved in the study. Each of the interview guide had 10 open-ended questions. However, as the interview progressed, the questions varied depending on the quality and richness of data obtained, which resulted in changing the interview schedule. The interview time varied between 20 and 40 minutes, depending on the participants’ interest to continue with the interview. The interview was conducted in the staff room as there was no other comfortable place within the hospital premises.

### 6.3.8 Qualitative Data Analysis

Data analysis in qualitative research aims to organise, structure and generate meaning from data obtained (Polit and Beck, 2012). Unlike quantitative research, qualitative data analysis can happen concurrently with data collection in qualitative research (Houser, 2012). Analysing qualitative data is challenging because of the large volume of data obtained that needs to be transcribed and reported in such a way as to answer the research question (LoBiondo-Wood and Haber, 2014). Although there is no set rule for analysing data in qualitative research (Gerrish and Lathlean, 2015), a careful approach should be adopted in order to reflect the views of the study participants (Maltby, et al., 2010). Data collected were analysed thematically in this study.

Thematic analysis is concerned with grouping data into specific themes. The researcher analyses the data based on participants’ responses by reflecting on their core statements in order to present the true meaning of the participants’ opinion (Holloway and Wheeler, 2010). Using thematic analysis methods reduces the series of core statements and sentences made by participants to develop themes, thereby focusing on what story is being told by participants (Polit and Beck, 2012). However, gaining a better insight into the content and meaning of participants’ story is dependent on the researchers’ skills and ability to identify the core statements. Therefore, Braun and Clarke (2006), developed six steps of thematic analysis;

* familiarising yourself with your data
* generating initial codes
* searching for themes
* reviewing themes
* defining and naming themes
* Producing a report.

Although other methods of thematic analysis such as framework thematic analysis exists, Braun and Clarke (2006) thematic analysis method was used in this study because it is comprehensive and systematic. In addition, it has the flexibility to fit research question and data, and it is a recursive rather than a linear process so, analysis does not happen sequentially all the time (Braun and Clarke, 2006).

All the information obtained during the interview were recorded using a Dictaphone (i.e. Digital voice recorder) before being transcribed verbatim. Transcribing verbatim means presenting a verbal recording the same way it was recorded (Creswell, 2009). This marks the first step of qualitative data analysis as it allows the researcher to recall the type of data that was obtained. The interview was transcribed by the researcher, thereby minimising mistakes and maintaining familiarity and accuracy of the data. The issue of mistakes in transcribed data is almost unavoidable because of interdependent way of communication (Polit and Beck, 2012). In order to minimise the mistake, a random sample of the transcript was reviewed with the supervisors of this research.

Subsequently, the researcher immersed herself in the data by reading the data repeatedly in order to gain meaning and identify patterns. The data were read three times while making notes for ideas that will aid in coding the data. Having read the data severally, initial codes for the data were generated. Full and equal attention was given to every data, which helped to identify specific aspects that could form the basis for repeated patterns across the whole data. Coding was facilitated by using highlighters to highlight important statements and equally writing at the edge of the text that was being analysed. A total of 42 codes were generated across the data set, which is too many; thus, further analysis was required. Therefore, a broader level of themes was required to reduce the long list of codes that were identified. Analysis of these codes was done by grouping these different codes into various themes. A table was used to distribute the different codes to form overarching themes. At this stage, the 42 codes were reduced to 20 sub-themes and 5 main themes. These codes, sub-themes and main themes were reviewed by reading through the highlighted data and notes made on the data to ensure that it reflects the true picture of participants’ responses. Having reviewed them, the sub-themes and main themes were named in such a way as to capture the actual content of each theme and sub-theme.

The final stage was to produce a report of the findings. This stage involved the actual documentation and writing of the findings chapter. This chapter is detailed in chapter seven of this thesis and includes the sub-theme and main themes of the findings. Also, direct quotes from the participants were included in this chapter which reflects the overall view of the participant and ensures that the findings represent the data.

## 6.4 Research Rigor

Every researcher seeks to either contribute to existing knowledge, confirm or refute an existing knowledge (Fowler, 2008). In nursing, evidence from research can be applied to guide or improve clinical practice (Polit and Beck, 2012). However, this cannot be achieved if the findings are biased, inaccurate, misinterpreted or fail to reflect the opinion of participants. Rigor refers to excellence in research by ensuring strict adherence to all procedures involved in the research process (Grove, Burns and Gray, 2013). Maintaining rigor in research is essential in establishing the trustworthiness of the research. However, because this study adopted a mixed method approach, the different ways used to ensure that scientific rigor and trustworthiness of this study was maintained will be discussed below.

### 6.4.1 Reliability and Validity (quantitative part)

Reliability is defined as the consistency of the instrument used for data collection (Nieswiadomy, 2012). In addition, it ensures that the target attribute of a measuring instrument is consistent with repeated measurements (Boswell and Cannon, 2014). This is necessary to ascertain whether the same outcome can be obtained when repeated measurements are done. Generally, reliability can affect the validity of a study in that the higher the variation following repeated measurements, the lesser its validity and vice versa (Polit and Beck, 2012). Thus, there is a need to ensure that the data collection instrument and the overall research process is reliable in order to maximise the reliability of the findings.

The reliability of the questionnaire and the overall quantitative part of the study was ensured through the following ways. Firstly, the questionnaire was developed using evidence from the literature to guide the scope of enquiry since there was no existing questionnaire that could be used for collecting data. Subsequently, the questionnaires were reviewed by the supervisors of this study who made relevant corrections and suggestions on how the questionnaire could be better structured. Moreover, the questionnaire was piloted among participants with similar characteristics rather than the potential participants for the study. The participants were selected for the pilot study based on their experience in either ICU or ward nursing care in Nigeria. So, it is believed that they would be able to identify mistakes in the questionnaire since they mimicked the potential study population intended for the study. However, it is essential to note that the questionnaire was not subjected to any form of statistical test such as the Cronbach’s alpha (Polit and Beck, 2012). This was because the questionnaire was not intended to measure relationships between variables but to collect basic demographic data that was used to inform the qualitative aspect of the research.

After collecting and analysing the data, the findings were compared with the data obtained to ensure that every element was accurately coded before analysis. Finally, the data and findings were sent to the supervisors of this research for review. Having carried out the measures listed above, it can be concluded that the reliability of the questionnaire in exploring the opinion of Nigerian nurses in providing a safe transfer of patients from ICU to the ward was determined.

The concept of validity seeks to establish the appropriateness of a research design or data collection instrument in answering the research question (Parahoo, 2014). Validity, unlike reliability, ensures that an instrument gives a correct and accurate measurement (Houser, 2012), which makes it more challenging to test for validity than reliability (Gerrish and Lathlean, 2015). In order to achieve this, validity tests are usually done and documented based on the type of construct they intend to measure (Polit and Beck, 2012). There are different types of validity nevertheless, only validity that is within the context of this research will be discussed.

Face validity refers to the physical verification of an instruments’ ability to be relevant, clear and unambiguous (LoBiondo-Wood and Haber, 2014). Face validity is usually done by either the researcher or other potential participants (Parahoo, 2014). In this research, the face validity test was done by the researcher and the supervisors of this study by checking for clarity and unambiguity of the questionnaire. Spelling errors were corrected, and the meaning of certain words were confirmed in order to ensure that the questionnaire was easy to understand.

Construct validity is concerned with the effectiveness of the questionnaire in representing the concept under survey (Boswell and Cannon, 2014; Maltby, et al., 2010). Given that the purpose of the quantitative stage was to obtain demographic data and provide a descriptive context of patients transition from ICU to the ward-based on nurses experiences, correlational and statistical tests were not required. However, the content of the questionnaire was assessed to ensure that it would be sufficient to develop questions that would be used to inform the second phase of the research.

Generally, validity tests ensure that an instrument consistently measures the right thing irrespective of any limitation that could arise within any given study. The validity of the questionnaire used for data collection was ascertained in order to ensure its ability to explore Nigerian nurses’ opinion regarding providing a safe patient transition from ICU to the ward. Although the type of validity tests conducted on the questionnaire are regarded as the weakest form of validity as there was no statistical test carried out on it (Grove, Burns and Grays, 2013). The tests were ideal for the type of study being carried out because being an explanatory mixed-method study, and the questionnaire is used to gain an insight of Nigerian nurses existing knowledge of patient transfer from ICU to the ward. In addition, the outcome of the survey will help streamline the second phase of the data collection.

## 6.5 Trustworthiness (Qualitative Part)

This is discussed below under the following sub-headings; credibility, dependability, confirmability and transferability.

### 6.5.1 Credibility

Credibility focuses on the ability of a study to accurately reflect the underlying meaning of the data (Houser, 2012). It is concerned with the truth about the findings (Parahoo, 2014) by assessing the suitability of the overall research design as well as the researchers’ qualifications and experience in carrying out the research (Maltby et al., 2010). The research was well structured such that it allowed for an explanatory mixed-method approach to be used at every stage of the research process. Triangulating across paradigms is acceptable in research, and this has increasingly been used in nursing research (Gerrish and Lathlean, 2015). Mixed method approach enhanced the researchers' ability to develop a broader and more in-depth understanding of the concept of patients transition from ICU to the ward based on Nigerian nurses’ experiences. The purposive, convenience and snowball sampling methods adopted in this study enhanced the credibility of this research in that participants were able to share their experiences of patient transition which helped to gain a better understanding of the concept. Also, the data analysis methods used contributed to the credibility of this study by ensuring that participants’ views were presented throughout this study. This led to the development of themes through analysing data that emerged during the interview thematically. Credibility of data analysis was assessed by the supervisors of this research by checking and analysing the themes and then comparing them to identify any similarities and discrepancies.

The role of reflexivity and its impact on the credibility of research finding has been identified (Holloway and Wheeler, 2010). The researcher ensured that the impact of its personal views, beliefs and values regarding the concept of patients’ transition on participants’ opinion and the outcome of data collected was minimised. This was achieved during data collection by continually reminding the participants that their opinion mattered most. Similarly, reflexivity was enhanced by presenting the findings to the supervisors of the research to confirm if the findings presented depicts participants intended opinion. Furthermore, the researcher is a registered nurse in Nigeria with critical care experience and has completed a Master programme in nursing which included a research component. So, it can be said that the researcher is qualified to undertake this research. Nonetheless, before commencing any stage of the research process, the researcher had to undergo research training in addition to the constant support received from the supervisory team.

### 6.5.2 Dependability

Dependability focuses on the stability of a study; if repeated study is conducted using the same participant within the same context will provide findings consistent with the initial study (Polit and Beck, 2012; Houser, 2012). In order to assure dependability of a study, the researcher must keep an accurate record of the research process. However, considering the time spent in carrying out research, there is a tendency of the researcher forgetting some important processes that were undertaken during the study. Therefore, the use of an audit trail which is often recorded through field notes has been identified as a measure to promote documentation among researchers (Parahoo, 2014). This study ensured dependability by using field notes to document every process undertaken during the research. This helped to improve the accuracy of the evidence provided in this study and the conclusions drawn. Furthermore, dependability of research finding is synonymous to the data collected so, researchers should be able to maintain decision trail throughout the study (Holloway and Wheeler, 2010). In this study, qualitative data collection was done using the interview guide developed for ICU and ward nurses based on finding of the quantitative stage throughout the study. Another factor that affects dependability is researchers bias; drawing conclusions based on isolated responses (Houser, 2012). Bias was avoided through constant interaction with the data obtained from the study, which helped to avoid drawing premature conclusion. Also, the use of thematic analysis helped to minimise researchers’ bias. This was achieved by coding the data before sub-themes and major themes were developed, thereby ensuring that the themes that were developed, cuts across the entire data set. This is very important as drawing premature conclusions could impact on the outcome of the study, thereby impacting negatively on the dependability of the study.

### 6.5.3 Confirmability

Confirmability is concerned with the ability of the researcher to remain neutral at every stage of the research process (Polit and Beck, 2012). This is essential in ensuring that there is a similarity between the data, findings and interpretation of the findings (Grove, Burns and Gray, 2013).

In this study, confirmability was ensured by transcribing the information obtained verbatim before analysis commenced. Also, participants were involved in the data analysis by including some participants’ comments to confirm that it accurately reflects their experiences. Also, the themes and sub-themes, as well as the raw data, were reviewed continuously by the supervisors of this research to ensure that the researchers’ preconceptions have not profoundly influenced the findings. This helped to mitigate the effect of the researcher's preconceived viewpoint on the outcome of the study.

### 6.5.4 Transferability

Within qualitative research, transferability is concerned with the applicability of research findings to other settings with similar characteristics (Boswell and Cannon, 2014). While in quantitative research, this term is referred to as generalizability (Maltby, et al., 2010). Nevertheless, transferability is limited by the fact that qualitative researches are more context-specific than quantitative studies (Parahoo, 2014). Therefore, careful consideration of providing adequate descriptive data is essential in evaluating the transferability of the findings to other contexts (Polit and Beck, 2012). This allows the reader to make a judgement about the possible transferability of the research findings.

Transferability of this study was ensured by providing detailed background information about the study’s context and setting. In addition, a detailed description of the participants’ characteristics; gender, age-range and qualification were provided. Furthermore, an accurate record of the number of participants involved in the study was provided. These impacts on the transferability of the findings as it provides sufficient information that determines the suitability of applying the study findings to another context with similar characteristics.

## 6.6 Reflexivity

Qualitative research, like quantitative research, seeks to ascertain the truth about a given phenomenon. However, because the approaches adopted in qualitative research methods do not allow for experiments or control of variables, reflexivity is often adopted to ensure rigor (Polit and Beck, 2012). Reflexivity is an essential concept in qualitative research as it reiterates rigor through constantly reminding researchers of their role in the study they are undertaking and how their behaviour can affect the data they obtain (Schwandt, 2007). Reflexivity echoes the concept of ‘self’ as the major instrument of data collection and analysis and the impact researchers’ preconceptions, values and behaviour could have on the outcome of the research findings (Gerrish and Lathlean, 2015). Likewise, reflexivity can be used by researchers to reflect on how the research has influenced them (Holloway and Wheeler, 2010). Having adopted an explanatory mixed method approach, the researcher considered the concept of reflexivity and the potential impact it could have on the outcome of the qualitative study.

Having worked in a Nigerian critical care environment and gained experience of how patients following a period of critical illness are managed. The researcher considered this stance based on these experiences and how preconceptions and assumptions regarding the transfer of patients from ICU to the ward can affect the data obtained. The issue of language and the different meanings inherent in it and how these meanings can affect the interpretation of data as well as the overall outcome of the study (Finlay, 2002) were considered. As a result, the researcher was mindful of the terms included in the interview guide. The interview guide which was generated by the researcher based on the outcome of the quantitative survey was initially sent to the supervisors to be scrutinised in order to ensure clarity and identify any preconceived assumptions that could cause bias. Several areas of inconsistencies in the questions were identified by the supervisors, which was then amended before the interview guide was used to collect data.

Furthermore, Finlay (2002), stressed on the need for researchers to consider their relationships with potential participants as this could impact on the data being generated. Although this was not the case in this study as the researcher does not have any working relationship with the participants, thus contact with the gatekeeper and participants was purely for the research purposes only. Nevertheless, the researcher avoided getting too emotional with the participants by focusing strictly on the interview rather than sharing personal experiences that were not related to the concept of patient transition from ICU to the ward. Additionally, priority was given to the participant’s opinion rather than the researcher’s preconceived knowledge about the phenomenon. However, Holloway and Wheeler (2010) argued that it is almost impossible to eliminate researchers’ bias. This is because the researcher being the main research instrument, decides what constitutes data and how they can illuminate the phenomenon under study. Therefore, a conscious effort was made to ensure that data was analysed and interpreted to illuminate the participants’ opinions on the issue being explored.

The method of data analysis enhanced the researchers’ ability to be reflexive during the interpretation and presentation of findings. Data obtained were coded out of which the sub-themes and themes were developed. Also, the research findings and participants’ responses were reviewed by the supervisors who then confirmed that the findings were consistent with participants’ view. These helped to gain a better understanding of the concept of patient transition from ICU to the ward in Nigeria as findings were gotten across the data set.

## 6.7 Ethical Considerations

Research ethics is an essential aspect of every research that involves human participants (Newell and Burnard, 2011). Previously, research ethics was disregarded, which then gave rise to the violation of human rights (Noble-Adams, 1999). In recent times, the need to protect human participants who are involved in research has gained much attention. The essence is to ensure that participants’ rights are protected and to identify any potential risks before any study commences (Grove, Burns and Gray, 2013). This gave rise to the development of ethical principles which is an offshoot of the Nuremberg code (Polit and Beck, 2012). Ethical principles comprises of a set of ethical framework that protects the rights of study participants (Noble-Adam, 1999). There are seven ethical principles; however, because these principles sometimes overlap, various ethical principles would need to be considered in order to address ethical issues that could arise in research. Therefore, this section outlines these ethical principles with an emphasis on the ethical issues that the researcher encountered during the planning phase and throughout carrying out this research. Also, a detailed explanation of how these issues were dealt with will be provided in this section.

### 6.7.1 Beneficence and Non-maleficence

The ethical principles of beneficence and non-maleficence are obligations placed on the researcher to do no harm and maximise benefit (Holloway and Wheeler, 2010). These principles go beyond minimising the risk of harming participants alone to include the researcher (Grove, Burns and Grays, 2013). Thus, the wellbeing of everyone involved in any type of study should be secured and maximised. Although researches are expected to contribute new knowledge, the negative impact of undertaking a study should be reasonably small compared to its benefits (Boswell and Cannon, 2014). This implies that researchers have a responsibility to safeguard themselves, the research subjects and the society at large throughout the period of their study. Researchers are therefore bound by this principle to assess any actual or potential effect their study may have on the participants either physically, financially, psychologically or emotionally (Polit and Beck, 2012).

The duties of beneficence and non-maleficence were exercised in this study by assessing the risks of exploring the concept of patient transition among Nigerian nurses. In addition, the impact of the research on the researcher was considered by assessing if any of the processes could put either the researcher or subjects at risk. Having done the assessment by reviewing it with my supervisors, no apparent risks on the participants were identified. However, considering that this study requires nurses to reflect on their practice experience, there is a small risk that participants could get upset during data collection. Although it is very unlikely for this to happen, measures were taken to support participants depending on the stage of data collection. At the first stage, participants were advised not to complete the questionnaire if they do not feel safe to do so. If this had happened at the second stage, the interview would be stopped immediately, and the participant advised to get help from the staff counselling unit. In addition, the PIS was useful in conveying information about the benefits and risks of the research to the participants.

On the part of the researcher, the risk of being harmed during the interview phase was envisaged as the researcher did the interview alone. So, risk assessment of the possible location within the hospital where the interview is likely to be conducted was done. The essence of which was to ensure that it was safe for the researcher. The researcher ensured that interviews were conducted within the hospital property that was risk assessed. Furthermore, the Anglia Ruskin University lone worker policy was used to guide the overall conduct of the research.

### 6.7.2 Fidelity

The principle of fidelity imposes a duty of faithfulness on the researcher (Holloway and Wheeler, 2010). Researchers are under obligation by this principle to build trust between them and the participants (Parahoo, 2014). Participants should be able to trust the actions and decisions the researcher had taken throughout the research process (Neale, 2009). Similarly, it is important that researchers can gain participants trust, which can be achieved by being honest (Gelling, 1999). Participants should be provided with detailed information regarding the research process, which should be strictly adhered to throughout the research.

The ethical principle of fidelity was applied in this research by providing all potential participants with PIS and ensuring that all the processes outlined in the PIS were followed. Also, the researcher remained committed to protecting participant’s rights throughout the study by offering them the opportunity to ask questions before the commencement of the interview in order to clarify any doubt.

### 6.7.3 Justice

This principle demands that researchers should treat their subjects in a morally right and acceptable way (Holloway and Wheeler, 2010). In other words, the need for equality and fairness among every research subjects (Polit and Beck, 2012), irrespective of age, gender or race is echoed (Malby, et al., 2010). Although it has been argued that inequality is almost inevitable in most cases (Boswell and Cannon, 2014), researchers must always strive to promote equality of distribution among their participants (Houser, 2012). This is essential in ensuring a fair representation of all the research subjects in a study.

In this study, the principle of justice was ensured by including both male and female nurses in the study and all their age included in the ranges provided. In addition, institutional multicultural views were respected by including both ICU and ward nurses. This is important to provide a fair representation of ICU and ward nurses’ view regarding the concept of patient transfer.

### 6.7.4 Veracity

This principle requires the researcher to tell the truth about a proposed study (Parahoo, 2014). Veracity incorporates the need to provide accurate information irrespective of whether the recruitment of participants will be affected or not (Gelling, 1999; Polit and Beck, 2012). The importance of this principle in ensuring that participant’s rights are respected cannot be overemphasised. Veracity has been regarded as the basis for obtaining informed consent from participants (Holloway and Wheeler, 2010). Thus, it is essential that researchers provide participants with accurate information in order to help them make informed decisions (Moule and Goodman, 2014). Truth-telling is therefore vital in research to ensure that participants are not deceived into taking part in a study against their will.

This study ensured that every participant had clear information regarding the research by providing them with a PIS at the recruitment phase. Subsequently, their understanding of the research aims and information contained in the PIS was ascertained. This helped them to decide whether they would like to be interviewed or not. Participants who were willing to take part in the interview were required to sign the consent form. Each Participants right was respected as no one was forced to take part in the study against their wish.

### 6.7.5 Confidentiality

Confidentiality in research ethics means that researchers have a responsibility to safeguard participants’ information (Moule and Goodman, 2014) and should not divulge it publicly in a way that they can be identified (LoBiondo-Wood and Haber, 2014). Respect for confidentiality encompasses protecting participants’ identities by avoiding any links between them and the data they provide (Nieswiadomy, 2012). Therefore, researchers are required by this principle to pledge that any information obtained from participants will not be shared with a third party. Anonymity has been identified as the most secure way of assuring confidentiality in research (Gerrish and Lathlean, 2015). However, anonymity may sometimes be impossible, especially when physical contact with study participants is required (Polit and Beck, 2012). In such occasion, the researcher must take care to avoid a breach of confidentiality through the following ways. Firstly, identification codes rather than actual names should be used to link participants to data obtained if necessary. Secondly, data obtained should be stored in a personal secured computer or hard disk and should be destroyed once the research is complete. Finally, all the information should be deleted from the computer or hard disk after transcribing the data (Holloway and Wheeler, 2010; Polit and Beck, 2012).

The principle of confidentiality was maintained in this study by assuring participants that any information obtained cannot be traced to them individually. This was achieved by requesting an anonymous response to the questionnaire as they were not required to write their names on the questionnaire. Similarly, all the information obtained was only seen and discussed with the supervisors of the study. Furthermore, a personal audio recorder was used for the interview session, and this was kept away from anyone else throughout the data collection. All the information contained in the audio recorder was transcribed and deleted after the data had been transcribed verbatim. The data was stored in the researchers’ private computer and was locked using a password that was known to the researcher alone. Identification codes, rather than participants actual names, were used to refer to their responses. These were done to ensure that maximum security of data obtained was maintained throughout the data collection period.

### 6.7.6 Respect for Autonomy

The principle of respect for autonomy protects participants’ right to make free and independent decision without compulsion (Holloway and Wheeler, 2010; Neale, 2009). Researchers must endeavour to respect each participant’s choice of either agreeing to participate in a study or not (Maltby, et al., 2010). In order to achieve autonomy, participants need to be aware of the nature of the study, including any risks attached to it (Newell and Burnard, 2011). It is, therefore, the responsibility of the researcher to provide potential subjects with all the information required to help them make an informed decision. This then implies that study subjects have the right to either give or withhold their consent without coercion. Consent is an inseparable part of autonomy in research as it provides the opportunity for participants to express their right to autonomy (Boswell and Cannon, 2014). Obtaining consent can either be verbal or written; however, the use of written consent is preferable to provide evidence of consent (Polit and Beck, 2012). Irrespective of how consent is obtained, participants must be informed of their right to withdraw it at any time (Holloway and Wheeler, 2010).

As mentioned earlier, all the information about this study was provided to the participants in the PIS. Their right to autonomy was respected by seeking consent before collecting data. Although a consent form was not required at the quantitative stage of data collection, participants were informed that the return of a completed questionnaire implied consent. At the qualitative stage of data collection, freely given written consent was obtained by signing the consent form. Furthermore, participants were informed of their right to withdraw at any stage if they did not want to continue with the study. However, they were told that they could only withdraw up to the point at which the completed questionnaire has been submitted. This is because stage one questionnaire is anonymous, which makes it difficult to isolate individual responses. At the second stage, participants were informed that they could only withdraw their data from the research before the data is incorporated into the research.

## 6.8 Ethical Approval

Every proposed study with human participants must first undergo ethical review before the actual study is carried out (Maltby, et al., 2010). Ethical approval is essential to assess if the proposed study meets the ethical standards that protect the rights of human subjects (LoBiondo-Wood and Haber, 2014). Seeking ethical approval vary considerably depending on the requirement of the institution or local ethics committee (Polit and Beck, 2012). However, it is the responsibility of the researcher to find out the process of obtaining ethical approval within its locality.

Although the research was proposed to be carried out in Nigeria, the researcher being a student at Anglia Ruskin University, Chelmsford, United Kingdom was required to obtain ethical approval from the institution. Ethical approval in this institution can be sought either through Faculty Research Ethics Panel (FREP) or Department Research Ethics Panel (DREP).

Details about the research process was provided to FREP, which was assessed to ensure that the study did not pose any potential harm to the researcher as well as proposed participants. Having been subjected to scrutiny by the university FREP, the research was approved by the university (see appendix 10). The approval was subject to the condition that ethical approval must be granted by the hospital in Nigeria, where data collection was done.

Ethical application was made to the research ethics committee in Nigeria, where the research would be undertaken. Details of the research were equally provided, which was assessed for safety and suitability of the study to be carried out. The research was approved in Nigeria by the research ethics committee before data collection commenced (see appendix 11). However, the research was approved by the local ethics committee for a year. Within this time, only quantitative data was collected so, application for approval was sought again to complete the qualitative data collection. The researcher then applied for extension of the ethical approval, which was granted for another year, as shown in appendix 12.

# Chapter Seven

# Research Findings

## 7.1 Introduction

As outlined in the previous chapters, this study adopted a mixed method approach (qualitative and quantitative). Data collection and analysis were done in two phases; this chapter presents both the quantitative and qualitative findings. The quantitative part of the study targeted a large number of study participants with the aim to provide a descriptive overview of their opinion regarding patients’ transition from ICU to the ward in Nigeria. The outcome of the quantitative findings informed the qualitative enquiry as the interview guide focused on the areas identified in the quantitative findings. Therefore, this chapter is divided into two sections; the first section presents a descriptive account of the quantitative findings while the second section presents the result of the qualitative study.

It should be noted that the application of percentages within the quantitative findings refers to the percentages of each study population (ICU and ward nurses). Thus, the percentages used in each study group refers to each study group and should not be compared across the two study groups.

## 7.2 Section one: Result of Quantitative Study

This section will be discussed under two subsections; demographics and major findings. Firstly, the study objectives are provided below;

* To provide a clear description of patients’ transition processes based on ICU and ward nurse’s experiences.
* To explore participants view on the group of healthcare professionals involved in the transitional care of patients from ICU to the ward.
* To identify ICU and ward nurses perspective of factors affecting transitional care of patients from ICU to the ward in Nigeria.
* To explore participants’ views on measures that can be implemented to improve patient’s outcome following a period of critical illness.

### 7.2.1 Demographics

A total of 100 questionnaires were distributed to nurses (80 ward and 20 ICU nurses) with an overall response rate of 56% (56) as 52.5% (42) out of 80 of ward nurses and 70% (14) out of 20 ICU nurses completed and returned the questionnaires. Gender distribution among the two groups of participants was 71.4% (n=30) female and 28.6% (n=12) male for ward nurses, 71.4%(n=10) females and 28.6%(4) males for ICU nurses. As shown in Table 7.1, ICU nurses 14.3%(n=2) had over ten years of working experience while ward nurses had 2.4%(n=1) of over ten years of working experience. None of the ICU nurses had less than one year of work experience, 4.8% (n=2) of ward nurses had worked for less than a year. This could be as a result of the fact that ICU nurses are usually required to start working on the general ward to enable them to gain general nursing experience before they can qualify to work in the ICU. This, in turn, may have increased their years of work experience. However, it is important to note that the difference in the years of work experiences among ICU and ward nurses will not be discussed further in this study. This is because the study is not aimed at exploring the impact of different work experiences on patients’ transition from ICU to the ward.

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| --- |
| **Table 7.1: years of working experience** |

|  |  |  |
| --- | --- | --- |
|  | ICU Nurses | Ward Nurses |
| Number of Years | Frequency (n) (%) | Frequency (n) (%) |
| <1 | 0 (0%) | 2(4.8%) |
| 1-3 | 6(42.9%) | 18(42.9%) |
| 4-6 | 6(42.9%) | 15(35.7%) |
| 7-9 | 0(0%) | 6(14.4%) |
| 10 and over | 2(14.3%) | 1(2.4%) |
| Total | 14(100%) | 42(100%) |

As showed in table 7.2, the study indicated that several participants from both study groups had other qualifications. Among the ICU nurses, there were variations in their qualification as about 35.7%(n=5) were registered nurses alone, 50% (n=7) were registered nurses/registered midwife, 28.6%(n=4) had a bachelor’s, and 7.1%(n=1) had master’s degree in nursing. Other qualifications included; registered Accident and Emergency nurse 7.1%(n=1) and registered intensive care nurse 7.1%(n=1). Similar to ICU staff, all the ward nurses were registered nurses with an equal distribution between registered nurses 50%(n=21) and registered nurse/midwife 50%(n=21). In addition to these qualifications, 38.1%(n=16) had a bachelor’s degree, while 11.9%(n=5) had a master’s degree in nursing.

**Table 7.2: Qualification of participants**

|  |  |  |  |
| --- | --- | --- | --- |
| ICU Nurses | | Ward Nurses | |
| Qualifications | Frequency (n) (%) | Qualifications | Frequency (n) (%) |
| RN | 5(35.7%) | RN | 21(50) |
| RN/RM | 7(50%) | RN/RM | 21(50%) |
| BsN | 4(28.6%) | BsN | 16(38.1%) |
| Ms | 1(7.1%) | MsN | 5(11.9%) |
| RAEN | 1(35.7%) | Others | 1(2.4%) |
| RICN | 1(7.1%) | 0(0%) | 0(0%) |
| Nurse Anaesthetics | 1(7.1%) | 0(0%) | 0(0%) |
| Total | 20 | Total | 64 |

##### 7.2.1.1 Shift patterns

This study also looked at the different shift patterns ICU and ward nurses worked. This was important to ensure that a comprehensive view of participants’ experiences based on night and day shifts regarding transitional care of post critically ill patients is provided. In this study, majority of the participants 92.9%(n=39) of ward nurses and 78.6%(n=11) of ICU nurses indicated that they worked both day and night shift. As a result, the participants were able to provide a comprehensive account of transitional care of post critically ill patients provided during the day and night shift.

## 7.3 Major Quantitative Findings

This section provides a descriptive account of the quantitative study, and they are presented in themes

### 7.3.1 Nurses Involvement during Patients Transition

The study revealed that almost all the participants from the ICU 92.9%(n=13) had been involved in providing transitional care to patients from ICU to the ward following a period of critical illness. While 88.1%(n=37) of ward nurses had been involved in patients’ transition from ICU to the ward. However, the participants’ level of involvement in transitional care was not explored at this phase of data collection but will be explored further at the qualitative phase.

The participants identified aspects of transitional care that should be considered when discharging or receiving patients from the ICU and into the ward following a period of critical illness. More than half of the participants 81%(n=32) identified patient health status as the most critical aspect of transitional care while half 50%(n=21) thought that patients medical information and treatment plan should be considered. Other aspects indicated such as availability of appropriate resources, and appropriate documentation were well under average at 38.1%(n=16) and 19%(n=8) respectively.

Also, the participants (ICU and ward nurses) pointed out the key information that should be included while handing over to ward nurses before patients’ transition. Findings as shown in table 7.3 revealed that 85.7%(n=36) of ward nurses considered patients medical information, 83.3%(n=35) treatment plan and 81%(n=34) patients health status as valuable information that should be communicated during transition of a patient from ICU to the ward. ICU nurses, on the other hand, believed that patients medical data 85.7%(n=12), care needs 64.3%(n=9) and demographic data 35.7%(n=5) should be considered. The findings above clearly showed a difference in opinion among the participants. However, the survey did not provide the opportunity for detailed responses from the participants, since this section was primarily to gain an overview of participants’ experience of patients’ transition from ICU to the ward. Therefore, the interview phase of the data collection will attempt to provide a detailed exploration in this regard.

**Table 7.3: Information communicated during patients’ transition to the ward**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ICU Nurses** | | **Ward Nurses** | | |
| **Information communicated** | **Frequency**  **(n), (%)** | | **Information communicated** | **Frequency**  **(n), (%)** |
| Patients medical information | 12(85.7%) | | Patients medical information | 36(85.7%) |
| Patients care needs | 9(64.3%) | | Treatment plan | 35(83.3%) |
| Patients demographic data | 5(35.7%) | | Health status | 34(81%) |
| Total | 26 | | Total | 105 |

### 7.3.2 Availability of Protocol for Transition and Members of the Transition Team.

Participants from the ICU were asked to comment on the use of transition protocols during patients’ transition from ICU to the ward. Over two-thirds of ICU nurses 85.7% (n=12), stated that they had a transfer protocol for patients following a period of critical illness, while 14.3% (n=2) reported not having such a protocol. Participants in this part of the research were not asked to provide details of the protocol as this would be explored qualitatively in the second phase of this research.

The survey obtained information regarding the groups of people that make up the transition team or are involved in patients transfer from ICU to the ward. As shown in figure 7.1, all the ICU participants 100% (n=14) reported nurses alone, 10%(n=2) stated nurses and doctors, 7.1%(n=1) said it was the nurses and family members while 21.4%(n=3) stated nurses and porters. The data gathered from the above findings revealed that nurses appeared to be more involved in the transitional care of patients following a period of critical illness. However, further exploration is required to identify if there are other members of the healthcare team that should be involved in transitional care and why it is necessary to have them. This will be done in the qualitative part of this study.

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| **Figure 7.1:** **Transfer team members** |

### 7.3.3 Support Provided During Transitional Care

Despite the findings of this study showing ICU nurses as being more involved in patient transfer and had used available protocol during transitional care, most of the ward nurses disagreed with these findings. This is evident as shown in figure 7.2 where slightly over half of ward participant 38.1% (n=16,) and (n=7, 16.7%) respectively reported that they do not get support or were unsure if they got support from ICU nurses.

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| **Figure 7.2: Do ward nurses get support from ICU nurses in transitional care** |

The survey further explored the types of support ward nurses received from ICU nurses following patients’ transition to ward-based care. Findings revealed inconsistencies in the type of support provided by ICU nurses. Figure 7.3 shows that 40.5%(n=17) of ward nurses did not get any support from ICU nurses. 37.7% (n=15) stated they got nursing support, while 26.2%(n=11) reported that they received some form of physical and collaborative support. Nevertheless, it is essential to note that the survey did not ascertain factors that affect ICU support. The reason for inconsistencies among ward nurses opinion regarding ICU support post patient transition to the ward will be explored further in the qualitative enquiry.

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|  |
| **Figure 7.3: Types of support received from ICU nurses** |

### 7.3.4 Reasons and Importance of ICU support in Transitional Care

Despite having a divided opinion regarding ICU nurse’s role in transitional care, an overwhelming majority 78.6%(n=33) of ward nurses agreed that support from ICU nurses would be necessary post patients’ transition. A small percentage of the ward nurses 4.8%(n=2) thought that ICU support was unnecessary. While 14.3%(n=6) of the ward nurses were unsure of the necessity of ICU nurses support following patients transition to ward-based care. This finding emphasises on the need to ascertain the availability of a transition protocol and what should be included in the protocol in order to provide the support needed by ward nurses following patients’ transition from ICU to the ward.

Among ICU nurses, there was evidence of transitional care following patients’ transition to the ward; however, ICU nurses had different opinions about the support they provided to ward nurses. 50%(n=7) of ICU nurses reported that they provided follow up visits post patient transition to the ward. 21.4%(n=3) stated that they did not carry out any form of follow up while 28.6%(n=4) were not consistently visiting patients post-transfer. Because the survey did not provide elements of the transition guideline, it would be difficult at this stage of analysis to determine if ICU nurses had the responsibility of providing follow-up visits to post critically ill patients on the ward. However, the ICU nurses reported some of the reasons why follow up visit was necessary, as shown in figure 7.4 below 21.4% (n=3) stated it was for professional reasons, 21.4%(n=3) said social reasons, 21.4% (n=3) agreed it was family reasons, while 71.4%(n=10) said it was for other reasons. This finding was affirmed by ward respondents where over half of the 66.7%(28) reported that they received some form of physical, collaborative and nursing support following patients transition to the ward. Therefore, considering the similarities in the findings from both the ICU and ward nurses, it can be said that there is evidence of transitional care following patients’ transition from ICU to ward-based care from both ICU and ward nurses.

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**Figure 7.4: ICU nurses reasons for follow-up visit post-transition of patients**.

### 7.3.5 Measures to Promote Safe Patient Transition

Generally, ward and ICU nurses acknowledged the need to implement measures that might promote patient safety during their transition to the ward. As shown in figure 7.5, several measures that can promote patient safety following a period of critical illness were identified; however, priority was given to some than others. It is seen from the responses provided by the participants as over half of ICU nurses 85.7%(n=12) and ward nurses 66.7%(n=24) identified collaboration as the most important measure that might maximise patient safety. Other measures indicated were planning [ICU nurses 42.9%(n=6); ward nurses 61.1%(n=22)] and provision of equipment [ICU nurses 35.7%(n=5); ward nurses 58.3% (21)]. In addition to the measures identified above, ward nurses believed that providing staff with appropriate training will promote patient safety throughout the transitional period. Although responses from the participants showed a difference in opinion about measures to maximise patient safety, this will be further explored in the subsequent section of the qualitative enquiry.

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| **Figure 7.5: measures to promote patient safety in transitional care** |
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## 7.4 Summary of the Quantitative Findings

Findings from this survey has provided demographic data of the participants. Also, their knowledge regarding transitional care of patients following a period of critical illness based on their experiences was established. Having analysed the quantitative data from ICU and ward nurses, there is evidence of transitional care in Nigeria. However, there seem to be divided opinion among ward nurses and ICU nurses regarding transitional care in Nigeria. For instance, while 50%(n=7) of ICU nurses stated that they provided transitional care following patients transition to the ward, over half of the ward nurses 38.1% (n=16) and 16.7% (n=7) reported they either did not receive any support or don’t know if they were given support from ICU nurses following patients transition to the ward. Despite the availability of transitional protocols as stated by ICU nurses 85.7% (n=12), ward nurses were still divided about issues to consider when receiving patients from the ICU. However, considering the aim of this survey which was to provide demographic data of the participant and gain an overview of participants’ opinion regarding patients’ transition, which would inform the second stage. It can be argued that this approach alone would not be suitable to uncover the concept of transitional care based on the nurses’ experiences in Nigeria. Therefore, some interview guide will be developed based on these findings to help provide an in-depth exploration of transitional care of patients from ICU to the ward among nurses in Nigeria.

# Stage Two: Qualitative Findings

## 7.5 Introduction

This section looks at patients’ transition from ICU to the ward from the participant’s perspective in Nigeria. Similar to the quantitative findings, this section is presented under two headings; demographics and major findings. The major findings are discussed under themes based on how they emerged from the data. The themes were divided into sub-themes to explain what contributes to providing a safe transition for patients from ICU to the ward. Then, both (themes and sub-themes) were discussed together, and reference to direct quotes from the participants were made where necessary. The data were analysed together without emphasising on any group of participants, but patterns in responses were observed. This was done to provide contextual information about the participants’ view of patients transition from ICU to the ward. Nevertheless, the study objectives are provided below;

* To provide a clear description of patients’ transition processes based on ICU and ward nurse’s experiences.
* To explore participants view on the group of healthcare professionals involved in the transitional care of patients from ICU to the ward.
* To identify ICU and ward nurses perspective of factors affecting transitional care of patients from ICU to the ward in Nigeria.
* To explore participants’ views on measures that can be implemented to improve patient’s outcome following a period of critical illness.

## 7.6 Demographic Characteristics of Participants

A total of eighteen participants (five ICU and thirteen ward nurses) were included in the second phase of data collection. They were three male and fifteen female nurses. Their years of working experiences ranged between less than one year and over ten years. The minimum qualification the participants had was a Registered Nurse. However, only two of the participants were Registered Nurses alone. Other qualifications that participants had were Registered Midwife (thirteen), Registered Intensive Care Nurse (two) and a Bachelor Degree in Nursing (two).

## 7.7 Major Findings

As shown in table 4 below, the study identified 5 major themes and 20 sub-themes. These themes and sub-themes will be discussed in details.

**Table 7.4 Table Showing Themes and Sub-themes**

|  |  |
| --- | --- |
| Main themes | Sub-themes |
| Knowledge of transitional care. | * Understanding of transitional care. * Active participation in transitional care. * Issues to consider and communication methods used throughout the transitional care process. * Composition of the transitional care team. * Support provided in transitional care. |
| Transitional care; huge responsibility for ICU and ward nurses. | * ICU nurses responsibilities in transitional care. * Ward nurses responsibilities in transitional care. * Combined responsibilities of ICU and ward nurses in transitional care. |
| Transitional care: challenging for nurses, patients and their relatives. | * Inequality and ICU discharges. * Absence of discharge and admission protocol. * Absence of inter-communication devices. * Absence of structured handover guidelines or standards. * Organisational and structural issues. |
| ICU discharge: a positive sign for patients and their relatives. | * ICU discharge: a positive sign for patients and their relatives. |
| Suggested measures for improving transitional care. | * Adequate patient preparation pre-transition. * Provision of guidelines. * Provision of resources. * Provision of staff training. * Provision of follow-up care from ICU nurses. * Provision of financial support to critically ill patients. |

## 7.8 Knowledge of transitional care

This theme provides evidence that participants have knowledge of transitional care of patients from ICU to the ward following a period of critical illness. Therefore, this theme is discussed under four sub-themes

### 7.8.1 Understanding of transitional care

Most participants demonstrated an understanding of transitional care by defining the transition of patients from ICU to ward following a period of critical illness. Transition, as described by participants, is the transfer of patients from one area of care to another. They stated that patients often require some form of transition during their hospital stay and transition from ICU to the ward involves stepping-down, change or movement of patients. Other consideration participants identified when describing transition is the patients' clinical state and wellbeing as this is necessary to determine patients’ outcome following the transition care period. Therefore, in the context of post critically ill patients, transition was described as the movement or transfer of patients from ICU to the ward putting into consideration the patients’ clinical state and wellbeing.

*“Transition means change, movement or stepping down of patients from ICU to the ward within the hospital” (Ward participant 4).*

*“We still need to remember the patients' state and wellbeing” (ICU participants 2).*

Several participants stated that transitions differ among patients depending on their state of health, length of ICU stay, prognosis and response to medical and nursing interventions. This highlights the uniqueness of transition to individuals and the fact that transitions are not the same. They identified that patients who need close monitoring and more intensive care are being nursed in the ICU and transition from the ICU to the ward is required when the patient’s health is more stable.

### 7.8.2 Participation in transitional care

Participants demonstrated an understanding of transitional care by describing their role in transitional care. They stated that the first step in the transitional care process is to assess the patient to be sure that they are stable enough to be transferred from ICU to another area of care. However, participants identified that the transitional care process involves inter and intra professional team approach, which involves doctors and other members of the healthcare team. Most participants identified that the role of inter and intra professional collaboration entails nurses liaising with the doctors and other members of the healthcare team to decide when a patient is fit to be discharged from the ICU. They stressed that this process could not be done independently by any member of the healthcare team as doctors rely on laboratory findings and the nurse’s observation to make such decisions. Nurses, on the other hand, depend on the doctors’ judgement to continue with the transition process. Therefore, every member of the healthcare team involved in managing the patient will be informed before the patient is transferred to the ward to ensure that continuity of patients care is maintained, and patient safety maximised. Nevertheless, most of the participants stressed that if there is disagreement among the team regarding the patients’ suitability to be transferred to the ward, the patient will be allowed to stay back in the ICU for at least twenty four hours for close monitoring before being reassessed for suitability to be transferred out of the ICU.

*“Sometimes, the managing team (doctors) will say I don’t think this patient is fit to go to ward yet so they will leave the patient for a day, or so they reassess and then decide” (ICU participant 3).*

Nevertheless, once a decision has been reached about the suitability of the patient to be transferred to the ward, nurses will then carry out further assessment to ensure that nursing care can be delivered on the ward without compromising patient safety. The assessment is sometimes done in two phases; first, the ICU nurses will assess the patient after which the ward nurses will carry out their assessment to confirm if the patient is actually fit to be managed on the ward. Some ICU nurses acknowledged the availability of a discharge checklist which facilitates the assessment of the patient as it enables them to ensure that the patient is stable enough to be transferred to the ward.

*“There is actually a discharge checklist that we do follow to ensure that nothing is missed out” (ICU participant 2).*

However, ward nurses were somewhat divided about their perceived involvement and role in transitional care, and some felt that after being informed about the patient, they go to the ICU to pre-assess the patient to ensure that the patient is stable enough for ward-based care. While others said that the ICU nurse’s judgement was enough to help them decide, and there would not need to carry out a pre-assessment before transferring the patient to the ward. Although ward participants stated that there had not been any disagreement among ICU and ward nurses regarding pre-assessing patients in the ICU before transferring them to the ward. However, if disagreement does occur, the ward and ICU matrons will be informed who will then intervene.

*“No, I don’t go to the ICU, we wait for the patient to arrive on the ward before we can commence our care” (ward participant 1).*

*“After informing us about a likely admission from the ICU, we go there to assess the patient first to know if the facilities we have on the ward is suitable to take care of the patient” (ward participant 4).*

Among those that pre-assessed patients prior to transferring the patient to the ward, they identified that pre-informing them about the patient is important to ensure that adequate preparation is made before the patient arrives on the ward from the ICU. In addition, they felt that having to carry out their own assessment on the patient in the ICU will help them have a clearer picture of the patient they are expecting and specific preparations that needs to be made before the patient arrives on the ward.

Few participants from the ward stated that they had been given wrong information about the patient and if patients arrive on the ward without being pre-assessed by ward nurses it could be challenging for ward nurses as adequate preparations for the patient would not have been made. They equally believed that the pre-assessment in the ICU is beneficial for decision making because if on their assessment, they identify that managing the patient on the ward will put the patient at risk of deterioration, then they may insist that the patient should spend more time in the ICU before being transferred to the ward.

*“Sometimes they give us the impression that patient is fit for ward care and when they come to the ward, you might end up seeing things that are not right” (ward participant 6).*

*“So, when they send for us to come get our patient, we go there first to go assess the patient because if this patient is gasping and we don’t have the facilities in the ward. we don’t have oxygen ready or something we can then decide they should have the patient for some time, but if we know that we can actually handle it, we take the patient to the ward” (ward participant 10).*

Although pre-assessing patients in the ICU seems reasonable, some ward participants identified that they do not go to the ICU to assess the patient before they are being transferred to the ward. They stated that the busy nature of the ward does not provide them with the opportunity to carry out pre-assessment. So, they rely on ICU nurses judgement and decision for the patient’s care to be continued on the ward.

### 7.8.3 Issues to Consider and Communication Methods Used Throughout the Transitional Care Process

Participants identified the need to be aware of vital issues about the patient such as patient biographic data, vital signs, current patient’s diagnoses, and procedures carried out on the patient, patient’s length of stay in the ICU, past medical history, previous and current medications of the patient. They stated that these are necessary in providing continuity of care for the patient. However, ward nurses stated that ICU nurses do not often inform them directly about patients that would be transferred to the ward. Sometimes they send the porters who may come with the patients’ medical and nursing notes for the ward nurses to review and be aware of the type of patient they are expecting. They pointed out that porters are used on such occasions because there are no pods and intercommunication devices, and ICU nurses may be busy with other things. Therefore, sending the notes through the porters will provide the opportunity for nurses on the ward to review the patients’ notes in order to have an overview of what type of patient they are expecting before the patient is brought from ICU and handed over to the ward nurses.

*“When a patient is ready to be transferred from the ICU to the ward, the nurses may send the porter to inform us in the ward that we have a patient then they will probably bring the diagnosis and the patients data for us to know the kind of patient we would be expecting” (ward participant 11).*

Ward participants identified the need to have information clearly documented, mainly because they need to preview the patient’s notes before having a proper handover from ICU nurses. They stated that this is important to understand the patient’s journey through the hospital as patients could have multiple transitions depending on their prognosis or other comorbidities. Ward participants reiterated that having an accurate documentation of the patient’s condition can serve as basis for identifying patients at risk of deterioration. They equally identified that accurate documentation will help them in planning patients care in terms of resource allocation.

*“Yea, if they record every patients details correctly, it will help us understand the patient better in terms of where they have been, what we need to get ready and who to contact if their condition worsens” (ward participant 1).*

Several participants stated that it would be better to have these conversations with the ICU nurses rather than having to read it from the clinical notes themselves as they could be constrained with time and may not read the clinical notes thoroughly before the patient is brought to the ward. Therefore, this could affect patients care plan, and other necessary preparations such as supplemental oxygen, medications the patient is currently on and if there are any immediate laboratory investigation required.

### 7.8.4 Composition of the transitional care team

Participants identified that the transitional care team is composed of people who are involved in the physical transfer of patients to the ward and people that provide clinical support to patients following a period of critical illness. They stressed that although nurses play a vital role in transitional care, other members of the healthcare team such as porters, doctors, pharmacists and anesthesiologists, also form part of the team. However, participants identified nurses and porters as being more involved in the physical transfer of patients from ICU to ward. Other members of the healthcare team, such as doctors rarely take part in the physical transfer of the patient except it involves a family member.

*“Here, there is no other member of the healthcare team that does the transfer. Cleaners will say it’s not their job and doctors will definitely not be involved except they are related to the patient, so it’s basically the porter and the nurses” (ICU participant 2).*

Involvement of other members of the healthcare team is expected to occur at certain times during the transition period. This is evident as participants stated that other members of the healthcare team such as doctors, laboratory scientists and pharmacist are only available to provide support at the post-transition phase when the patients are already on the ward. Most of the ICU and ward participants said that these members of the healthcare team do not think it is their responsibility to physically transfer the patient to the ward so, they do not get involved at that stage. Nevertheless, participants think that everybody working in the hospital are important and should be involved at some stage of the transitional care of the patient. They also acknowledged the role of the cleaner as being very vital in maintaining a clean and infection-free environment for patients care. Even the pharmacists and medical laboratory scientists roles were highlighted as being responsible for ensuring that the right medication and diagnosis are available. Therefore they all form part of the team.

*“I just think the cleaners just to make sure that the patient’s environment is clean and conducive for them. The pharmacists as well just to make sure prescribed drugs are correct and available for the patient, so no one is less important” (ward participant 6).*

Furthermore, participants identified that social workers need to be actively involved as well, especially because patients are often faced with financial constraints following transition to the ward. They also stated that financial implications are huge because patients are still expected to carry on paying for their treatment even while on the ward. Participants mentioned that social welfare services are often employed mainly when the patient is still in the ICU because it is usually seen as an emergency, so they will most certainly be involved. However, social welfare staff are not always carried along when the patient is discharged to the ward. Therefore, participants agreed that involving social welfare staff throughout the transitional care period could ensure that measures are taken to help patients and their family members find alternatives with paying for their hospital care.

*“I think social welfare staff should be involved, especially because most of the patients end up having financial constraints having spent all their money in the ICU. You know when a patient is in the ICU, its normal everybody gets involved, but when they are discharged, the social welfare staff is not always carried along” (ward participant 11).*

Nevertheless, there is a mismatch between the participants thought regarding what should happen and what happens in reality. Although the participants highlighted important roles played by every member of the transitional care team, this is not often the case in reality. Participants attributed the shortage of staff as the main reason why transitional care is not adequately provided to meet the healthcare needs of post critically ill patients. Therefore, the members of the healthcare team that are involved in transitional care of patients from ICU to the ward are mainly nurses, doctors, porters, healthcare assistants, cleaners, the patient and their relatives.

### 7.8.5 Support Provided in Transitional Care

Participants demonstrated an understanding of transitional care by identifying the support ward nurses, patients and their relatives receive from the transitional care team post transfer of patients from ICU to the ward. Although, there were some divided opinions among participants as to whether they had ICU nurse’s input post patient transition. Most participants from the ward identified that other members of the healthcare team such as the porters, cleaners and healthcare assistants were very helpful in supporting nurses during transitional care. In terms of professional support, some ward nurses stated that ICU nurses do not often provide follow-up support following patients’ transition to the ward and the ones that visit the wards do that based on their personal relationship with the patient. Also, ward nurses felt that if patients are certified safe to be nursed on the ward, the patient can adapt quickly and if there is any challenge with the patients care, ward nurses and doctors can deal with it. A few respondents from the ward thought that having follow-up care from ICU nurses is not necessary because nursing is a continuous process and once ward nurses have received these patients, they would be able to provide the care required for the patient.

*“I think if it has been established that the patient is certified safe to be managed on the ward efficiently, in the early times after transition from the ICU they can come and check on the patient but I do think that nurses on the ward are capable of taking care of the patient” (ward participants 12).*

Some of the ward nurses stated that ICU nurses provide follow up care occasionally to patients transferred to the ward. They described follow-up care as being relevant and helpful to patients following transition from ICU to the ward. Ward participants stated that because of the busy nature of the ward, post critically ill patients do not have the type of care they need, and nurses often struggle to cope with providing such care. Most ward nurses admitted seeking help from ICU nurses because they believe that ICU nurses know these patients better and can provide guidance as to how best to care for the patients if they encounter any challenges. Some of the follow-up support provided by ICU nurses as identified by the participants include; assisting in carrying out specific procedures that ward nurses are not competent in performing, collaborating with ward nurses to ensure that patient’s clinical condition is improving and equally providing psychological support to the patient.

*“Sometimes, they do come to check on the patient, and when we have challenges, we find out from them how things should be done with the particular patient” (ward participant 2).*

Overall, ICU nurses felt that having follow-up visits 24 to 48 hours post patients transfer to the ward is essential to ensure that the patients and staff are well supported. However, participants identified that follow up visits was previously implemented but is not currently practised because of shortage of staff and limited availability of time. Some respondents from the ICU acknowledged that they still visit patients based on the relationship they had with the patient while on admission in the ICU but it is not part of the hospital policy for them to provide follow-up visits.

*“As I said, we were doing it visiting patients on the ward previously, but what is on ground presently is obviously inadequate. So, we just go if we like and have the time but its not our responsibility to do that” (ICU participant 4)*

Participants identified that the shortage of personnel has resulted in them prioritising the care provided in transitional care. Rather than having to provide follow-up visits post patients transition to the ward at the expense of the care required by critically ill patients in the ICU. Ward nurses and patients are then left unsupported, which may have a negative impact on patients care.

## 7.9 Transitional care: huge responsibility for ICU and ward nurses.

This theme describes the sense of responsibility nurses have in transitional care of patients from ICU to the ward. Participants stated that their role in transitional care is enormous as they are involved in the physical and clinical aspects of patient’s transitional care following a period of clinical illness. This theme is discussed under three sub-themes.

### 7.9.1 ICU Nurses Responsibilities in Transition Care

Nurses reported their role in preparing patients and their relatives physically, clinically and psychologically. All the ICU participants stated that it is their responsibility to ensure that patients are physically, clinically and psychologically stable for transition. They identified that transition preparations are carried out simultaneously and cannot be done in isolation because transition processes are interwoven. Most participants stated that patient’s preparation for transition include physical, psychological and clinical preparations. Their role in transitional care includes ensuring that patients have been appropriately weaned off mechanical ventilation, intubation and are sure that patients can actually cope without the help of these mechanical devices. Furthermore, respondents stated that there is an interplay between the physical, psychological and clinical preparation, which is often achieved through monitoring patients closely, involving other members of the healthcare team and observing the ventilator readings.

*“Before we start weaning patients from the ventilator, we look at the ventilator setting, we monitor the patients closely and based on the ventilator setting and patients making breath, we inform the doctor who must consent to it before ever the weaning process begins. So, the decision is taken based on the patient’s response, looking at the ventilator setting as well as doctors and nurses involvement” (ICU participant 4).*

Participants stated that the weaning process entails close monitoring of patients to ensure that they are making progress which is often evident on the ventilator reading as the ventilator records any extra breath made by the patient. This is important as it provides a physical indication that the patient is ready to be weaned off the ventilator. At this stage, other members of the healthcare teams such as doctors are then informed to review the patient for possible prescription for weaning to be commenced. The weaning process takes about forty-eight to seventy-two hours, depending on the patients’ response to the weaning process. Meanwhile, all the ICU respondents stated that once mechanical ventilation weaning has started, ward nurses are informed. Participants stressed the importance of communication between ICU and ward nurses at this stage as this would enable them to prepare for a potential admission from the ICU. However, participants identified that if the mechanical ventilation weaning fails due to any reason, the discharge will be cancelled and the ward informed.

*“We just need to work with the ward nurses to provide space for us to transfer the patient because they can now breathe normally on their own” (ICU participant 1).*

*“Sometimes the weaning does not go as planned, so we just call it off and let the ward know” (ICU participant 3).*

ICU participants recognised their role in collaborating with ward nurses once patients have been successfully weaned off mechanical ventilation and decision to discharge the patient from the ICU has been reached. They stated that an indication of successful weaning is the patient’s ability to breath independently without the help of a mechanical ventilator.

Furthermore, most ICU participants pointed out that their role entails ensuring that patients health is maintained throughout the transitional care period. Also, ICU nurses identified their role in informing the patient and their relatives of any changes or planned changes in their care and support them, especially during the pre-transitional care period. This is essential as it is likely to ensure that their psychological health is maintained by providing them with information regarding their clinical condition as well as reassurance when necessary. ICU participants identified that it is their responsibility to prepare patients physically as well by attending to their personal hygiene before they are transferred to the ward. All the ICU participants stressed that they are responsible for ensuring that the patients' transfer process from ICU to the ward is safe for the patient and their family members by providing them with psychological support, ensuring that continuous monitoring and patient care is maintained. They stated that their role officially ends when the patients arrive on the ward, and they have successfully handed the patient over to the ward nurses.

### 7.9.2 Ward Nurses’ Responsibilities in Transitional Care

Ward nurses identified their role in ensuring that the ward is prepared adequately, that they have access to supplemental oxygen, a crash trolley and the doctor is made aware that the patient is stepped-down from the ICU. In addition, they are responsible for assessing the patient to enable them to review their care plan, check the drug charts and commence any due treatment. Most ward participants thought that the care provided to post critically ill patients could vary depending on the health needs of the patient. For instance, if it is a surgical patient, operation or trauma site must be checked to ensure that dressings are intact and the patient is not bleeding. This echoes the fact that transitions are unique and peculiar to patients depending on the individual circumstances. Ward nurses stressed on their role in ensuring that patients are safe post-transition from the ICU through continuous monitoring of the patient and reporting any deviation from normal to the doctors for them to review the patients. Most ward participants stated that doctors are usually aware of the patient being transferred from ICU to the ward, but when there is an urgent need to have the doctor, then the nurses will go get them as there are no pagers or intercommunication devices to contact them.

*“I just think we have the responsibility to draw their attention because we are a team the care of the patient continues as far as we can interact with other team members” (ward participants 5).*

Furthermore, most ward nurses recognised their role in providing support to patients and their families. These include their responsibility to make patients feel welcomed and wanted in the ward, to familiarise the patient with the ward environment and to let them know nurses are willing and available to help. Ward respondents also stated that their responsibility encompasses the encouragement of patients and their relatives to ask for help when they require it. Ward nurses equally stressed on the importance of familiarising patients to the ward environment as patients would have been used to the ICU routines, which is entirely different from the ward routines. In addition, they stated that patients need a lot of reassurance, especially with regards to their location within the hospital as most patients would feel frightened if proper information is not provided. Also, ward participants mentioned that information about visiting times and the role of patient’s relatives to the patient during patients stay in the ward is part of ward nurses responsibility.

*“We have to welcome them to the ward, show them around and let them call us if they need assistance. We also tell the relatives when they can come and visit the patient and how they need to help us while the patient is still on admission” (ward participant 12).*

Ward participants identified some of the roles of family members in transitional care which includes; ensuring that patients food is prepared by them and brought to the hospital in time, money is made available to buy patients medications and carry out all the necessary clinical investigations. This is particularly important as hospitals do not prepare meals for the patient, and the patient bears the financial burden of care themselves. Therefore, family members need to liaise with nurses to ensure that patients’ needs are met adequately.

### 7.9.3 Combined Responsibilities of ICU and Ward Nurses in Transitional Care

Apart from specific responsibilities identified by ICU and ward participants, respondents also described some of the combined responsibilities of ICU and ward nurses during the transitional care period. These include agreeing to a realistic time when patients should be transferred in order to ensure that the process is not disruptive to the nurses, patients or to other patients and their family members. For example, not transferring patients at night except in extreme emergency when critical care bed is required. Timing of transition was identified as an essential aspect of transitional care because several activities has to be factored in. Most ICU and ward participants stated that patients and their relatives need to be given ample time to pay any outstanding bills they owe the ICU especially because the accounts department is only open at specific times. Also, patients should not be undergoing any form of active treatment such as blood transfusion during transition. This is because transferring patients at such times could be disruptive, thereby jeopardising patient safety. Furthermore, participants agreed that ward nurses should be given enough time to prepare for the patient’s arrival, and ICU nurses should not be busy with other emergencies so they can help if necessary. Although they identified that there is no fixed time for transferring patients to the ward, participants all agreed that an interplay between these factors usually means that transfers happen during the day except on rare occasions when there is an urgent need for ICU beds.

*“I mean there is no exact time when patients are moved to the ward, but you need to consider if the patient is having any active treatment such as blood transfusion, time of the day as well because the accounts section closes at 4 pm so any discharge after 4 pm will have to wait till the next day when they reopen. We also need to make sure that the ward nurses are ready to receive the patient and the ICU nurses are free to send the patient” (ICU participant 3).*

Aside from having a realistic time, participants identified that ICU and ward nurses play a role in ensuring a safe transfer of patients to the ward through assisting ICU nurses if required to move the patient to the ward. Participants identified that they have a combined responsibility to ensure that the patient’s confidentiality is maintained throughout the transitional care period. This is achieved by ensuring that information about the patient is not discussed around other patients, and only members of the healthcare team directly involved with the patients care should have information about the patient. They stated that working as a team is essential as staff can be deployed to the ICU from the ward to work on rare occasion, especially when there are short of nurses. Equally, ICU nurses could help provide support to ward nurses, especially within 24 to 48 hours of patients discharged to the ward.

## 7.10 Transitional care: challenging for nurses, patients and their relatives.

This theme describes the overall challenges the hospital, nurses, patients and their families face during transitional care. This theme is further divided into five sub-themes.

### 7.10.1 Inequality and ICU Discharges

This sub-theme describes the number of patients discharged from ICU and transferred to the ward. Participants described this as a ‘low patient turnout’ because, on average, they receive four patients monthly from the ICU. They identified that a common cause for this is the high cost of ICU care and because patients are responsible for paying for their medical treatment so if patients cannot afford to pay then they are left on the ward. Participants stated that the high cost of ICU care has an indirect impact on the rate of patients discharged from the ICU because if patients are not admitted into the ICU due to financial reasons then, the rate of discharge will equally be low. A common concern expressed by most participants for this trend is that patients from poor financial background are left to suffer and die on the ward even when there is a clear indication for ICU admission. Sometimes patients and their relatives could be left with the option of either to remain in the ward or sign against medical advice then take the patient home. However, the wealthy patients and those whose care is funded by their company do not go through such stress because either their families or company can afford to pay for their care in the ICU.

*“Let me say not weekly, but monthly we get an average of 4 patients” (ward participant 2).*

*“When there is a clinical indication for ICU care, we will first liaise with the family to be sure they can pay for it, so if the patient cannot pay there is no way you can take them there. However, for the company patients, no stress, we just take them to the ICU” (ward participant 8).*

The inequality among patients, as described by participants, have a direct impact on the number of ICU admissions. This is evident as most ICU and ward participants stated that because there are few company patients and more patients from poor backgrounds who may not be able to afford the high cost of ICU care, the number of admissions to the ICU is small which in turn affects the number of patients transferred from the ICU back to the ward.

Furthermore, participants identified that another cause of low patient’s turnout is that patients could be sent to a different ward depending on their diagnoses which could be medical, surgical, gynaecological or obstetrics. Therefore, some wards may have a higher rate of patients transferred to them than other wards. For example, participants from surgical wards identified that the number of patients transferred from the ICU to surgical ward is significantly lower because patients would not generally be allowed to have surgery if their chances of survival are low. So on rare occasions, patients will not require critical care post-surgery, which then impacts on the number of patients that will be transferred to the surgical ward post critical care period.

*“if the patient is not fit for surgery, then it won’t be done, so that is why patients don’t often come to surgical wards from the ICU” (ward participant 4).*

Participants identified patients and their relatives lack of knowledge about available healthcare services as another factor that contributes to a low number of patients discharged from the ICU. They stated that patients would most often attend the hospital in a premorbid state as they do not know the extent of damage they are causing to themselves by not attending the hospital early. Most respondents equally stated some of the impact of patients and their relatives lack of knowledge on patients such as increased length of hospital stay, high morbidity and mortality rates. The reason being that majority of the patients will only attend the hospital at a critical state that could be challenging to save their lives. This impacts on patient’s prognosis, which then affects the number of people that will eventually be discharged from the ICU as the majority of them will eventually die because they attended hospital late.

*“Most challenges is that people don’t come to the hospital in time, until the case has gone beyond repair. Their chances of survival are reduced, and sometimes they stay longer in the ICU, which then affects the patients' outflow from the ICU” (ward participant 2).*

Inequality among patients is also demonstrated as most participants identified that on rare occasions, patients that can afford to pay for critical care decides to stay in the ICU for a longer time than required. Majority of ICU participants stated that nurses try to dispute the idea of allowing patients to stay longer in the ICU or be admitted into the ICU if there is no clinical indication for the patients to be in the ICU. However, this causes argument among nurses and other members of the health care team, and because nurses are not responsible for discharging patients from the ICU, it is difficult for nurses to send patients out of the ICU without the doctor authorising the patients' discharge. Most participants recalled that patients had been be allowed to stay in the ICU and discharged home directly from the ICU, which contributes to the low number of patients that are often transferred from ICU to the ward.

### 7.10.2 Absence of discharge and admission protocol

Participants identified the absence of a discharge and admission protocol as a factor that impacts on the quality of the nursing care provided during transitional care. Majority of the ICU respondents likened the discharge and admission process in the ICU to other clinical settings such as the theatre where discharge and admission checklists are used to facilitate the process. They identified that in the case of transitional care of patients post period of critical illness, patients are often discharged from ICU to the ward without having any protocol in place. Sometimes patients could even be discharged directly home, especially if they can afford to pay for ICU bed. Participants stated that having discharge and admission checklist will promote maximum use of the ICU by ensuring that patients that meet the admission or discharge criteria are admitted to or discharged from the ICU. This is essential to ensure that patients who actually require the ICU are admitted to the ICU and the discharge process is equally facilitated.

“*You know like when a patient is going to the theatre, we have like a checklist, and we don’t have that for patients leaving or going to the ICU which makes things a bit difficult” (ward participant 9).*

Ward participants recalled the absence of parameter for identifying deteriorating patients on the wards, especially for post critically ill patients. They stated that because patient’s assessment is based on monitoring the vital signs and looking at other physical manifestations that the patient is presenting with so, absence of parameters for identifying deteriorating patients is challenging for nurses. Participants stressed that the absence of parameter for identifying deteriorating patients is often detrimental to the patient as nurses depend on their discretion to decide if there will need to inform the doctor or the ICU nurses. Most participants agreed that there are inherent problems such as difference in personal opinion and delay in taking decisions which could impact negatively on patients care as the patient could deteriorate further.

*“There is no tool for identifying deteriorating patients. It is based on nurses assessment, but this is not good enough because what I call serious may not appear serious to another nurse” (ward participant 1).*

The absence of discharge and admission protocol was identified as a reason why subjective rather than objective decisions were taken during the transitional care period. Participants stated that some doctors were reluctant to admit or discharge patients from the ICU, which impact on patient’s outcome as patients could deteriorate further if prompt intervention is not provided.

### 7.10.3 Absence of inter-communication devices

This sub-theme describes the challenges faced by nurses in transitional care due to the absence of inter-communication devices. Participants identified that following a period of critical illness and when the decision to discharge a patient from ICU to the ward has been reached, the ICU nurses will have to come in person to the ward to inform the ward nurses of the possibility of getting a patient from the ICU. Sometimes when the ICU nurses are obviously busy, they would have to send their healthcare assistants or porters to inform the ward nurses about the impending transition. Participants identified that there could be communication breakdown because the porters and healthcare assistants may not have adequate skills to convey the information accurately to the ward nurses.

*“So either the healthcare assistant or the porter will go to the ward and inform them if we are busy with other things, but you know, they shouldn't be doing that….. If we had intercom, then we would not need them to go” (ICU participant 3).*

The absence of inter-communication devices results to waste of time as ICU nurses would sometimes have to do the initial handover before going back to the ICU to prepare the patient for discharge to the ward. Effective communication was described as being important in transitional care, but this was often hindered due to the absence of intercommunication devices as ICU nurses sometimes forget to handover certain essential things about the patient. This might cause delays in planning and implementing care as the nurse would have to come back to the ward again to provide such information which can be detrimental to the care of patients.

*“Delay in communicating maybe what you can do maybe once by dialling a number you will have to walk down from your unit to another unit sometimes severally especially if you forget something important about the patient” (ICU participant 4).*

Apart from issues with handing over, participants identified that the absence of intercommunication devices impacts on patients care as patients could sometimes be rushed back to the ICU without pre-informing the ICU nurses. Nurses stated that having to go and inform the doctor when a patient deteriorates is time-consuming so they would often have to take the patient along with them to the ICU especially if the patient had been in the ICU previously. However, they stated that if there were a means of communication, they would not have to go through the stress of taking the patient down to the ICU in such an emergency situation because it would be stressful for the patient.

### 7.10.4 Absence of structured handover guideline.

This sub-theme describes how patients handover is being done. Most participants stated that the care of post critically ill patients are often handed over based on nurses discretion of what they think should be included in the handover of patients care. They emphasised on the importance of having a structured handover that provides details about the essential things that should be included in the handover. Participants thought that they need to be aware of everything about the patient in order to enable them to plan holistic care for the patient. However, they stated that because of the absence of a structured handover guideline, it is almost impossible to provide a holistic plan of care for the patient. The reason being that they receive a subjective handover based on what the nurse handing over deems important and necessary to be handed over.

*“Actually, it’s what we’ve been saying there should be a handover standard or guideline or a policy guiding what we do like a code, but unfortunately, we do not have such, so nurses use their discretion during transitioning patients from ICU to the ward to hand over” (ward participant 5).*

The absence of handover guideline or standard was considered as a contributory factor to why incomplete information about the patient was often provided. Majority of the participants identified that having detailed information about the patient will enable them to plan better care for the patient. They believe that knowing everything about the patient will enable them to know what to expect and how to prepare for the patient including patients medical diagnosis, length of stay, laboratory findings, past medical history, haemodynamic status, oxygenation status, allergies, habits and preferences. However, most patient’s vital information is often omitted because of the absence of structured handover.

*“We don’t really have like a guideline, had it been there was a guideline or something like a checklist, it would have aided us so that we don’t omit any vital information. Most times, certain information might be lost though later picked up, but that initial stage planning patient care may be impeded because the nurses receiving the patient may not even remember to ask questions. But having a checklist or handover will help avoid that because the handover checklist will prompt you” (ICU participant 4).*

Participants suggested that having an objective approach to handover through the use of a communication tool might facilitate transitional care by ensuring that basic information required for effective patient care is communicated clearly and succinctly at handovers.

### 7.10.5 Organizational and Structural Issues.

In this sub-theme, participants identified the impact of organisational and structural issues which could impact on the availability of resources; human and mechanical resources. As identified by participants, non-availability of these resources can be challenging to nurses, patients and their relatives.

Participants highlighted that non-availability of basic functional facilities like lifts for transporting patients could affect transitional care of patients following a period of critical illness. They stated that in some instances, patient’s transfers could be hampered, especially when the lift is not functional, so extra help will be required to physically carry the patient through the stairs to the ward. Most participants recalled that patients had been physically carried through the stairs by family members, porters, passers-by and volunteers in order to facilitate patient transfer to the ward. They stated that although there are lifts available in the hospital due to lack of maintenance of the lifts, the lifts are not always readily available to be used for transfers of patients from ICU to the ward. Majority of the respondents stated that sometimes the lift could be out of order for days, and if there is need to transfer patients, other alternatives such as lifting and carrying patients will then be sought. Participants stressed that carrying patients through the stairs can be dangerous for the patients, especially when there are not enough people to help. They stated that in serious occasion when patients cannot be physically carried through the stairs, they would be nursed on another ward until when help is available, or the lift is repaired.

*“You just discover that the lift has stopped working. So basically you look for people to help carry the patient through the staircase, but if you don’t find anyone, then there is nothing you can do until the lift starts working again” (ICU participant 2).*

Participants identified that the absence of other clinical devices such as supplemental oxygen, digital blood pressure monitoring devices, electrocardiogram machines, blood glucose machine and pulse oximeter were not readily available for use which can be challenging in transitional care. They stated that there were no wall-mounted oxygen and oxygen administration is through oxygen cylinder which the patient has to pay for themselves. They identified that availability of supplemental oxygen often causes problems because the oxygen cylinders are big and expensive for patients to afford. Blood pressure monitoring was said to be done manually as there were no digital ones available, and in some cases, they would have to borrow from another ward.

*“It’s really challenging because most times we only have big cylinders which the patients can’t afford because they have other things to pay for as well” (ward participant 13).*

Furthermore, participants identified staff shortage as another factor that affects the transitional care of patients following a period of critical illness. They stated that supposed members of transitional care team such as pharmacists, laboratory scientists, social workers are not often available because of inadequate staff. Most participants stressed that services such as post-transition follow-ups are not often provided primarily because ICU staff are not enough to carry out such responsibilities. Most ward participants stated that they are often overworked when patients are transferred to them from the ICU because there are no extra staff to support them post patient transition to the ward. This could impact on the transitional care provided to post critically ill patients as their care might be compromised due to the absence of these resources. Also, the structural layout of wards was identified by most respondents as a factor that affect transitional care. They stated that the nurses' station is situated in a different place where nurses are not able to have visual contact with the patient. In addition, there was no call bell around patient’s bedside including patients in the side rooms. Participants stated that these poor structural layout could be detrimental to patients, especially when they require assistance or they are in need. Equally, some ward participants expressed concerns over the absence of call bells around patient’s bedside especially during emergency, and they would not be able to alert their colleagues, thereby delaying the commencement of the resuscitation process.

## 7.11 ICU discharge: a positive sign for the patient and their relatives

This theme describes participants’ experiences of patients and their relatives following patients discharge from ICU to the ward. All the participants agreed that patients play a vital role in transitional care and that they are always involved in every stage of the care which includes informing them of their treatment and discharge plans. They stated that patients do not often refuse to be transferred from ICU to the ward, especially when a good explanation about why their care needs to be stepped down is provided in time. As identified by most participants, this is essential to reduce patient’s anxiety and promotes a sense of trust in the care that is being provided. However, some participants pointed out that on rare occasion, patients could resent being moved out of the ICU to the ward despite having explained the reason for the transfer. They stated that this is often because patients and their relatives could feel that the quality of care they would receive on the ward is substandard. Most participants agreed that communication is vital in providing reassurance to patients and their relatives, as this makes them comply with the treatment plan.

*“The patient is the first to be informed about their transition. If the patient says I’m not ready we let them know that the reason for moving them to another unit is not to terminate their care but that their care needs to be provided by other capable hands in order to make space available for other people who needs this facility to improve their chances of survival as well, so they agree” (ICU participant 1).*

All the participants stated that because patients and their relatives perceive the ICU as a special unit where patients chances of survival are significantly reduced so, being discharged from the ICU to the ward is a positive sign of recovery. Therefore, for patients to come out of the ICU and undergo transition process to the ward means that their chances of survival are high, their length of hospital stay is short, and there is a great chance of being discharged home. Also, participants stated that patients and their relatives feel a sense of relief from the financial burden upon ICU discharge, especially because ICU care is more expensive than ward care. This impact positively on the recovery process as well because the patients and family’s level of anxiety is significantly reduced.

*“Patients and their relatives are even kind of relieved because they feel that they’ve passed the worst so being in the ward means that patients will survive and their stay in the hospital is reduced, so they are not really apprehensive any longer” (ICU participant 3).*

Although participants feels that patients and their relative viewed transition as a positive sign to recovery, participants also identified that wealthy patients and patients whose care is funded by a company, are reluctant to be transferred to the ward. Most participants stated that this group of patients appreciates the importance of transition but would insist on paying for ICU care to remain in the ICU. Therefore, for this group of patients, they only experience transition from ICU back to their own homes as they are often allowed to remain in the ICU until they are ready to be discharged home.

## 7.12 Suggested measures for improving transitional care

Generally, participants were less satisfied with the level of transitional care. They suggested several measures that could be adopted to maximise patient safety and improve transitional care. These measures are discussed below;

### 7.12.1 Adequate patient preparation pre-transition

This sub-category describes the need to prepare patients clinically, physically adequately and psychological before transition. All the participants identified that patient’s assessment and pre-informing patients of their care and discharge plan from the ICU early while they are still in the ICU will help prepare them clinically, physically and psychologically. Nurses found that patients often feel lost in the transition process as they do not understand what the transition process entails and their role throughout the transition care period. Therefore, participants suggested that detailed information regarding the transition process should be provided to patients such as the reason for the transfer. They equally stated that explicit information about ward-based care should be part of the pre-transition information provided to patients as patients could be disappointed with the level of nursing care they receive when they arrive on the ward. Participants indicated that part of the information provided to patients should highlight the difference in nurse-patient ratio on the ward because patients would have been used to the 1:1/1:2 nursing care they received in the ICU. So, informing patients and their relatives about the change in nursing and general care early at the pre-transition phase could promote patients understanding and acceptance of the ward environment.

*“They should be well oriented about where he/she is going because some of them feel they are going home from the ICU with the joy of going home, only to find themselves on another ward which is not as comfortable as the ICU where they were” (ward participant 9).*

Providing this information early in the transitional care process, especially while the patient is in the ICU might promote an excellent nurse-patient relationship and help patients settle better when they arrive on the ward.

### 7.12.2 Provision of guidelines

This sub-theme highlights the importance of having standardised guidelines and protocols in place to facilitate the transition process. The suggested guidelines include; ICU admission and discharge guidelines, communication tool and tools to identify deteriorating patients. Participants stated that having a standardised ICU admission and discharge guideline would minimise the misuse of ICU by ensuring that only patients who actually require ICU care are admitted to the ICU and they are stepped-down once they are fit to be discharged to other areas of care. They stressed that the ICU is often misused because there is no criteria and people think that if they can afford to pay for the ICU, then they should be admitted there. So having an ICU admission and discharge policy could change that notion as people would be forced to stick to the protocol in place.

*“So if we have a guideline, it makes the transition process better because it sets the criteria that patients can be moved or not……. It’s not about the money now, it’s about who really needs critical care” (ICU participant 4).*

Another type of guideline that some participants identified that would facilitate the transition process from ICU to the ward is having a communication tool. They stated that communication tool would enhance information sharing among the transition team members through ensuring that vital information about the patient is not missed. A few of the nurses stated that having a communication tool could serve as a reminder about all the important aspects of patient’s care that should be communicated. They stated that the absence of a communication tool already impacts on transitional care as handovers could take so long but still does not convey all the relevant information about the patients such as treatment plan, patients allergy and investigations done or still outstanding. Participants identified that because people use their discretion to decide on what should be communicated, the information provided is flawed and disjointed.

*“I think we should have a definite way of communicating if not everyone will decide on what they think is important to talk about” (ward participant 7).*

A tool for identifying deteriorating patients was equally highlighted as an essential measure that can promote the transition process of patients from ICU to the ward. Some participants stated that because there is no yardstick for assessing and identifying deteriorating patients, nurses often depend on their clinical judgement and experience to decide when a patient is deteriorating and the frequency at which patients should be monitored. They indicated that depending on clinical judgement and experience could be risky because newly qualified nurses without experiences would struggle to identify deteriorating patients, thereby jeopardising patient safety.

*“There is no red line perse, but from my nursing experience, I can tell when a patient is too critical to be on the ward” (ward participant 2).*

Participants stated that although they use the vital parameters of the patients by checking their vital signs; temperature, pulse, blood pressure and respiration to determine patients at risk of deterioration, it is difficult to determine the severity of the deterioration. Also, acting promptly could be difficult because they have to put the vital signs findings together and try to decipher what the figures mean in real terms and the impact it could have on the patient. They stressed that having a tool for identifying deteriorating patients would improve patient safety by ensuring that deteriorating patients are identified early and prompt intervention sought.

### 7.12.3 Provision of Resources

All the participants reported that the availability of human and mechanical resources play an important role in transitional care. They acknowledged that increasing the number of nursing staff could improve the provision of follow-ups as there would be dedicated staff whose role will be to provide such services, thereby maximising support to patients, their family members and even ward nurses post-transition to the ward. Apart from nursing staff, participants also identified the need to have other staff such as pharmacists and social workers available, especially during out of hours (in the evenings and weekends). They highlighted that sometimes the pharmacy might be closed which makes it difficult to get newly prescribed medications thereby putting patients at risk. In addition, social workers have a specified time that they work, and they do not work on weekends. Therefore, any need for their services will have to wait until weekdays. A further wish expressed by most participants is the need to increase the number of staff so that there will be people assigned to work social hours. They stressed that having these arrangements in place will enhance the transitional process as identified patient’s clinical and social needs will be met, and continuity of their care maintained.

*“We need more social services because sometimes you refer patients and they won’t attend for weeks and if you ask they simply say they are busy” (ward participant 12).*

*“At weekends and evenings, it’s difficult to get hold of them because they finish work at 4 pm and don’t work weekends” (ICU participant 3).*

Participants acknowledged that doctors are often overworked because of excessive workload. They stated that often there could be only one doctor covering surgical, medical and emergency department so, during emergency, it could be difficult to get hold of the doctor because he/she could be busy attending to other critically ill patients as well. Participants suggested that more doctors should be employed and there should be dedicated team of doctors who should respond to deteriorating patients being transferred from ICU to the ward.

*“Sometimes you need these doctors you can’t find them because they are busy with other patients, but if the staff strength is good, all these will be taken care of” (ward participant 3).*

Furthermore, participants identified the need to have High Dependency Units (HDUs) to breach the gap between the level of care in the ICU and ward-based care. They acknowledged that ward nurses often struggle to cope with the patients care especially when they are discharged directly to the ward, which eventually impacts on the quality of care post critically ill patients receive on the ward. Participants suggested that having HDUs will ensure that patient safety is maximised by maintaining a higher standard of care provided in the ward.

*“Like I said ward nurse maybe two on duty with over 20 patients. So if the hospital had HDUs then that will help a lot, so the patients care will be gradually stepped-down from 1:1 to maybe 1:3” (ICU participant 4).*

All the participants identified lack of clinical equipment such as suction machines, glucometer, pulse oximeter, observation machines, nebulisers, cardiac monitors, especially on the wards. They stated that most of these basic clinical equipment are only found in the ICU and on the ward, vital signs are done manually. Participants acknowledged that having these clinical equipment on the ward could enhance transitional care as patients transferred from ICU to the ward would require constant observations which is challenging when done manually. Furthermore, they stressed the importance of adequate maintenance of clinical equipment as these equipment could be available on some wards but are not functioning.

*“Some of these types of equipment should be made available in the ward where patients from the ICU are cared for so we not have to be doing vital signs manually” (ward participant 9).*

Participants identified that the availability of moving and handling equipment such as lifts should be paramount as this saves time, improves the effectiveness of the transition process and reduces stress for nurses, patients and their relatives. They stated that the available lifts are not enough and are not always in good working order when the need to use them arises. Participants indicated that a factor that affects the availability of lifts is the absence of constant electricity supply to power the lift. They, therefore, suggested that having alternatives such as ramps will be beneficial because it can be used manually without requiring electricity and ramps are generally not expensive to maintain.

*“You know here we work only with the lift which is not always working because of issues with electricity or faulty lift, but if we had a ramp, we could easily push patients to the ward without depending entirely on the lift” (ICU participant 2).*

Another type of resources participants identified that should be made available is mobile diagnostic equipment such as portable x-rays and other scanners. They stated that patients are usually taken down to these departments if they require such investigations and these are disruptive because it may not be safe for the patient to be taken to undertake such investigation. Participants identified that having such portable devices will be helpful throughout the transitional care period, especially when the patient is still in the ICU and after the patient has just been transferred to commence ward care.

### 7.12.4 Staff Training

The need to provide routine staff training was highlighted by participants as one of the measures that could be adopted to promote patient safety in transitional care. Although most participants noted that every nurse has a formal nursing education, they stressed the need to have ongoing training in order to keep their nursing knowledge and skills up to date. Also, participants stated that staff training is necessary to meet the modern age challenges and technologies within the healthcare setting. Only a few respondents acknowledged the availability of some training being provided through engaging nurses in rotational services on various wards. Although they expressed satisfaction with such rotational programme as it broadens their knowledge and experiences, participants expressed a feeling of vulnerability because they are expected to learn on the job without proper guidance. Therefore, most nurses suggested that having actual training in addition to any rotational program is important to maximise patient safety in transitional care.

*“The training must be there to increase our skills to meet modern-day challenges, you know the cases we even find today are not exactly the way they were before. For example cancer cases were not like this 20 years ago, so we need to look for ways to improve ourselves in practice” (ward participant 7).*

Participants stressed that because the world is ever-changing, so does clinical conditions and equipment. Therefore, training is required to update nurse’s knowledge, thereby improving their skills, practice and competence in providing transitional care.

### 7.12.5 Provision of follow-up care from ICU nurses

Participants reiterated the importance of providing follow-up visits by ICU nurses post patients transition to the ward. They identified the absence of a proper follow-up care following a period of critical illness as there is no consistency in the way it is being provided and do not see it as part of ICU nurses responsibility to provide follow-up care post-patient transition from ICU to the ward. Participants suggested that including follow-up visits as part of ICU nurses responsibility could promote teamwork among ICU and ward nurses. Also, participants identified that implementing follow-ups will be beneficial for ward nurses, patients and their relatives as ward nurses would feel supported while patients and their relatives’ fear of being abandoned by ICU nurses could be allayed.

*“Having follow-up care will be very nice because by the time patient sees the ICU nurses they will be happy that they are being checked on by the nurses who took care of them when they were very sick, and they can provide advice to ward nurses about how to take better care of the patient” (ward participant 11).*

Participants identified that the care provided in the ICU is utterly different from ward-based care because ward nurses are usually busy with a lot of other patients thereby making patients feel abandoned. Participants felt that having follow-up care could provide support and guidance to ward nurses, as well as monitor patients’ response by providing reassurance to patients and improve the quality of care patients receive.

### 7.12.6 Provision of financial support to critically ill patients

Participants identified financial constraint as a significant factor that affects transitional care as majority of the patients who require ICU care are very poor and cannot afford to pay for their treatment. They stated that even when there is a clear indication for ICU admission, patients relatives will often decline because they cannot afford to pay for the treatment. These patients are usually left on the ward unattended, and majority of them die as a result of their inability to pay for critical care. Participants indicated that on some occasion, the families would have to leave the patient on the ward to look for money, but sometimes these patients deteriorate, which affects their prognosis. Some patients relatives may request to be referred to another hospital or could sign against medical advice and go home. Therefore, participants suggested that having some form of social support either by subsidising ICU care or not considering their financial status before deciding on who gets admitted into the ICU will help maximise patient safety throughout the transitional care period.

*“Having a way to support patients financially will be very helpful because in most cases patients do have financial constraint after being assessed, and we know that these patients can benefit from the ICU, the family just declines because they simply can’t afford it” (ward participant 5).*

Participant indicated that even the few that manage to pay for ICU care, they struggle post-transition to the ward because they would have exhausted all their money in the ICU and would be unable to buy their medications, carryout laboratory investigations or even buy their food when they are discharged to the ward. Participants indicated that at any phase of a patients critical care journey, assisting critically ill patients through subsidising their care in the ICU would impact on transitional care provided to them. They indicated that patient safety in transitional care would be maximised if financial help is provided to critically ill patients as treatment will not be delayed and patient’s outcome following a period of critical illness could be improved.

## 7.13 Conclusion

Findings of the quantitative and qualitative study has been discussed in this chapter. The findings were divided into two sections; demographics and major findings. Findings of the quantitative study were presented using tables and charts. These qualitative findings served as a basis for the qualitative study as the interview questions were developed based on them.

Findings of the qualitative study were presented under different themes. Five major themes and twenty sub-themes were identified. The five major themes identified are;

* Knowledge of transitional care.
* Transitional care: huge responsibility for ICU and ward nurses.
* Transitional care: challenging for nurses, patients and their relatives.
* ICU discharge: a positive sign for patients and their relatives.
* Suggested measures for improving transitional care.

Findings were discussed reflecting participants’ view of the patient’s transition from ICU to the ward following a period of critical illness by citing direct statements of the participant where necessary.

# Chapter Eight

# Discussion

## 8.1 Introduction

The study aimed to explore nurse’s experiences of patients’ transition from ICU to the ward in Nigeria following a period of critical illness. The study objectives are;

* To provide a clear description of patients’ transition processes based on ICU and ward nurse’s experiences.
* To explore participants view on the group of healthcare professionals involved in the transitional care of patients from ICU to the ward.
* To identify ICU and ward nurses perspective of factors affecting transitional care of patients from ICU to the ward in Nigeria.
* To explore participants’ views on measures that can be implemented to improve patient’s outcome following a period of critical illness.

The main findings of the qualitative part of the study are; knowledge of transitional care, composition of the transitional care team, transitional care: huge responsibility for ICU and ward nurses, transitional care: challenging for nurses, patients and their relative, ICU discharge: a positive sign for patients and their relatives and measures to improve transitional care. This chapter provides a critical evaluation of a patient’s transition from ICU to the ward in Nigeria based on these research findings. Also, integration of the qualitative and quantitative findings is provided concurrently in this chapter and will be discussed under the following sub-headings;

* Patients’ transition processes from ICU to the ward.
* Factors affecting transitional care.
* Suggested measures to improve transitional care.
* Usefulness of the critical care patient’s transition model.

Finally, a section that integrates the Critical Care Patients Transition Model (CCPTM) with the findings of this study is provided.

## 8.2 Patients’ Transition Processes from ICU to the Ward

Nurses expressed an understanding of transitional care by defining patients transition as the stepping-down, change or movement of patients from one area of healthcare setting or one level of care to another and putting into consideration the patients' state and wellbeing. Previous studies identified that little is known about transitional care from nurses’ perspectives despite nurses being the primary healthcare professionals directly involved in transitional care of patients. (James, Quirke and McBride-Henry, 2013; Wu and Coyer, 2007; Elliot, et al., 2011). Within the Nigerian context, several studies that centres on transitional care have been conducted (Osinaike, Akinyemi and Sanusi, 2012; Isamade, et al., 2007; Okafor, 2009; Mato, Onwuchekwa and Aggo, 2009). However, these studies adopted a retrospective approach which does not provide opportunity for the views of nurses or other members of the healthcare team to be investigated as only pre-existing data were analysed.

Findings presented in the qualitative part of this study suggests that transition is synonymous to transfer as it was difficult to separate the physical movement of patients from ICU to the ward from their psychology. The concept of transition has been in existence in various fields such as anthropology, musicology, history, geography and social sciences (Kralik, Visentin and VanLoon, 2006). Transition was first attributed to nursing by Chick and Meleis, (1986) when she described transition as a complex phenomenon that involves a person’s interaction with the environment embracing all elements of the process and outcome of transition which is embedded in the context and situation. Transitional care has been defined as the care provided before, during and after the transfer of patients from ICU to another area with the aim to minimise disruption and optimise patient care (Haggstrom, Asplund and Kristiensen, 2009). Based on the findings presented in the qualitative part of this study, transitions differed among patients depending on their state of health, financial background, their clinical diagnosis and the level of patients and their families knowledge of transitional care. Therefore there is a need to individualise transitional care provided to patients following a period of critical illness.

As indicated by the qualitative findings of this study, most nurses demonstrated active participation in transitional care through their ability to describe the processes involved. Assessment of patients care was identified as the first step in the transitional care process because it helped the nurses to ascertain that patients are stable enough to be transferred to the ward. Lee, et al. (2009) study provided an explicit example of the role of patient’s assessment in transitional care as the study revealed that initiating nursing assessment contributed to a reduced number of ICU readmission rate within a three day period through ward nurses ability to identify deteriorating patients and escalate promptly. Despite evidence of emphasis on patient’s assessment before the transition of patients from ICU to the ward in this study, there was mixed opinion among participants regarding patients pre-assessments. Nevertheless, this was attributed to the absence of a discharge protocol. Thus, participants stated that having a discharge protocol could allay the confusion and impact on patient safety.

Findings from both qualitative and quantitative study suggests that patients transition from ICU to the ward in Nigeria is a complex phenomenon that requires inter and intra professional collaboration of other members of the healthcare team. The effectiveness of inter and intra-professional collaboration in providing a safe transition of patients from ICU to the ward was emphasised in the findings presented in this study. This is evident as the quantitative study indicated that nurses, doctors, porters and family members all make up the transitional care team while the qualitative study included volunteers and healthcare assistants in addition to those identified in the quantitative study. Collaboration in transitional care has been identified in a previous study as an important factor that impacts on patient safety following a period of critical illness (Jones, et al., 2008). This is affirmed as the qualitative finding of this study showed that ICU and ward nurses collaborated with each other as well as other members of the healthcare team in various aspects, including medical and non-medical activities. Participants identified the unique role played by every member of the healthcare team such as cleaners in ensuring that patients environment is clean and tidy and nurses collaborating with doctors to wean patients off mechanical ventilator before they are discharged from ICU to the ward. This finding is upheld by the study conducted by Rose, et al. (2011), where nurse managers identified that nurses collaborated with doctors for decisions about weaning patients off mechanical ventilator. In addition, nurses made significant input in the decision however, this varied considerably as doctors would generally initiate the titration and nurses were more often involved in ongoing ventilator settings. In contrast, Crocker and Timmons (2008), ethnographic study where nurses viewed weaning as a medical task transferred to them from the doctors and this affected their collaboration with doctors in weaning patients off the ventilator. Weaning was the least priority and was viewed as a potential to disrupt their daily routine so, would be left until other activities around patients were completed. Nevertheless, considering that participants in Rose, et al. (2011) study composed of nurses managers and Crocker and Timmons (2008), composed of nurses with different grades and experiences, it can be argued that the difference in opinion was likely as a result of the different composition of the study participants.

After the decision to wean patients off mechanical ventilation has been reached, the next phase of the transition process as indicated in the qualitative part of this study would be for ICU nurses to inform the ward staff about a potential admission from the ICU. However, communication was identified as the primary barrier in achieving this phase of the transition process because, in order to inform the ward nurses of a potential admission, an ICU nurse, healthcare assistant or a porter would have to go directly to the ward to ensure effective communication is achieved. Most countries in recent times, emphasise on the importance of effective communication. In the UK for instance, communication was identified as a significant role player in the implementation of the 6cs (Care, Compassion, Competence, Communication, Courage and Commitment) of care which reinforces the importance of putting the patient at the centre of care (Department of Health, 2012). Within the critical care setting, Nadazam, (2009) believe that the problem of communication between the ICU nurses and ward nurses impacts on patient’s safety. Furthermore, Elliot, et al. (2011) identified that Initiating a patients care post-transition from ICU to the ward was delayed because of communication gap among ward nurses, ICU nurses and other members of the healthcare team. The use of untrained staff such as porters and healthcare assistants as a channel of communication in this study could be detrimental to post critically ill patients as vital information concerning the patient could be delayed or distorted.

Having informed ward nurses of the potential admission, timing of patients transfers to the ward is vital in facilitating the transition process. As indicated in the qualitative findings, patient’s transfers from ICU to the ward were done at certain times of the day primarily because patients are expected to pay for their treatment and provide the receipt before they are allowed to be transferred from the ICU. This explains why patient’s transfers are generally done during the day because the accounts department closes at a certain time of the day. Previous studies identified a high mortality rate and ICU readmission due to patients being transferred during out-of-hours (Laupland, et al., 2008; Pilcher, et al., 2007; Singh, et al., 2010; Gantner, et al., 2014). Santamaria, et al. (2015) study did not identify any relationship between patients transfers during out-of-hours and increased patient mortality. Nevertheless, findings presented in this study indicate that the importance of advocating for patients transfers to be at a specific time of the day is purely based on logistic reasons rather than patient safety. This is because patients are responsible for paying their hospital bills which must be done before they are allowed out of the ICU to the ward. Previous studies have identified that patients and their families are responsible for paying for the cost of all medical interventions including critical care in Nigeria (Isamade, et al., 2007; Ilori and Kalu, 2012). In contrast, the cost of healthcare services in developed countries like the United Kingdom, are provided by the government through the National Health Service (Office for National Statistics, 2018). Therefore, if out of hours transfers of patients from ICU to the ward exists in developed countries, it can be attributed to maintaining patients safety and not necessarily due to logistic reasons as identified in this study.

The qualitative stage two findings presented in this study identified ward and ICU nurses responsibilities in transitional care. These include; ensuring that patients are clinically, physically and psychologically prepared for transition. Adequate patient and their family members preparation pre-transition has been identified in previous studies as a measure that impacts on transitional care as it helps create awareness of the transitional care process to them (Haggstrom and Backstrom, 2014; Ramsay, et al., 2013). Also, collaboration with ward nurses and other members of the healthcare team is vital in ensuring that the patient’s transition is safe. As indicated by findings presented in this study, transition phenomena involves the psychological aspect while transfers entail the physical movement of patients from ICU to the ward and these activities do not occur in isolation. The transfer process of the patient from ICU to the ward entails the physical movement of patients from ICU to the ward. This study identified that nurses, porters, volunteers and family members were involved in the transfer process and that transfer differs depending on the availability of lifts and other moving and handling devices. Haggstrom and Backstrom (2014) study stressed the fragility of patients and the need to continuously monitor and administer supplemental oxygen to the patient throughout the period of transfer. However, considering that patients were physically carried through the stairs to the ward in this study, maintaining patient’s saturation and monitoring would be challenging.

Nevertheless, there was evidence of transition among ward participants as most ward nurses stated that they had received patients on the ward following ICU discharge. Handover of patient care seemed to be an essential part of the transitional care process, as identified in previous studies. Such studies described nursing handovers as a medium for transferring concise patients’ clinical information, treatment plan, family and social history as well as their actual and potential health problems between the ICU and the ward (Sluisveld, et al., 2015; James, Quirke and McBride-Henry, 2013; Kowitlawakul, et al., 2015). According to qualitative findings presented in this study, nurses felt that despite the initial handover provided by either the porters or healthcare assistants depending on how busy the ICU nurses were, verbal handover is still important and it is usually done on patient’s arrival to the ward on face to face basis. Further handovers were done when the patient arrives on the ward, and both the quantitative and qualitative findings provided information regarding what patient’s information should be provided at handovers. The information includes patient’s biographic data, current patient’s diagnoses, procedures carried out on the patient, patient’s length of stay in the ICU, past medical history, previous and current medications of the patient and vital signs. James, Quirke and McBride-Henry (2013) study revealed a contrasting view as ICU and ward nurses had a mixed opinion regarding what should be communicated at handovers; while ICU nurses think that communicating a full range of the patients care is important, ward nurses felt that a summary of care provided was required. Therefore having detailed information about the patient at handovers is vital to ensure that continuity of care is maintained in order to promote patient safety.

Based on the findings of the qualitative study presented in this study, some of the ICU nurses stated that the final stage of the transition process of patients from ICU to the ward occurs when patient’s handover has been completed, and the patient is on the ward. Transition process among ward nurses continues with nurses ensuring that patients are assessed, care plan reviewed, and clinical interventions initiated where necessary. Furthermore, patients and family members involvement is crucial in providing reassurance to them by familiarising the patients to the ward and answering their questions. Previous studies have identified that patients and their relatives are often faced with psychological distress, feeling of abandonment and relocation anxiety as part of the transfer process to ward-based care (Chayober, et al., 2005; Ramsay, et al., 2013). In addition, there has been speculations that, because they are often not made aware of the actual ward situation and the high demand placed on ward nurses, there could be potential conflict between patient’s expectation of ward care and the care they actually receive on the ward (Kauppi, Proos and Olausson, 2018). Findings from the qualitative study indicates that information regarding the transitional care process is often provided to patients and their relatives which helps to allay their fears and ensures their safety is maximised.

## 8.3 Factors Affecting Transitional Care

According to the outcome of the qualitative findings presented in this study, several factors affecting transitional care provided to patients following a period of critical illness were identified. Firstly, a small number of patients admitted to the ICU resulted in very few patients discharged from the ICU. However, the small number of ICU transitions was attributed to inequality in accessing healthcare services. A typical example is the payment for clinical treatment made by the patients and relatives as patients would not be admitted into the ICU if they cannot afford the cost of treatment even when there is clinical indication for ICU admission. The cost of providing healthcare services is expensive globally with critically ill patient costing six times more than non-critically ill patient (Intensive Care Society, 2009). In Nigeria, previous studies have identified that patients and their families are responsible for paying for the cost of all medical interventions including critical care (Isamade, et al., 2007; Ilori and Kalu, 2012). In developed countries like the United Kingdom, health care services are provided by the government through the National Health Service (NHS). However, findings from the qualitative study identified that sometimes, patient relatives would decline patients admission to the ICU even when there is an indication for ICU admission due to their inability to afford critical care services. This undoubtedly could impact on patient’s morbidity, mortality and prognosis, thereby compromising patient safety post-critical illness period.

Despite these challenges facing patients transitional care in Nigeria, the qualitative findings of this study indicated that there was a low risk of patient’s deterioration primarily because patients were adequately assessed and certified fit to be managed on the general ward. In contrast, high readmission rate was recorded in other developed countries such as Australia which they attributed to premature ICU discharge due to increased demand for critical care beds (Elliot, et al., 2011). The difference in the findings is not surprising because ICUs in Nigeria are not often faced with the challenge of bed availability due to the high cost of ICU care borne by the patients and their relatives (Onyekwulu and Anya, 2015). In addition, Mato, Onwuchekwa and Aggo, (2009) retrospective study identified a high rate of ICU misuse in Nigeria as patients were admitted into the ICU simply because they could afford ICU services and needed privacy without any apparent underlying indication for admission to the ICU which then resulted in a very low number of patients transferred from ICU to the ward. This resulted in a high rate of patients discharged home directly from the ICU and a low number of patients requiring transition from ICU to the ward (Ilori and Kalu, 2012). The inequality of healthcare services identified in the qualitative part of this study may well explain why there was a low number of patients discharged from the ICU and lack of patient’s deterioration.

Another factor that affects transitional care based on the findings of the qualitative study is the absence of monitoring and escalation protocol for deteriorating patients as nurses were meant to work based on their judgement of what was deemed right action to take. This approach could impact on patient safety as judgements could differ considerably from one nurse to another. Previous studies conducted in this regard, showed the use of monitoring guideline and escalation protocol such as the National Early Warning Score (NEWS) and its effectiveness had been tested especially in critical care settings (Gao, et al., 2007; Carberry, Clements and Headley, 2014). Furthermore, Baker-McClearn and Carmel (2008) identified that the use of Outreach services in identifying deteriorating patients helped to prevent avoidable ICU readmissions following patients discharge to the ward from the ICU. In contrast, the quantitative and qualitative findings of this study showed the absence of guidelines for identifying deteriorating patients. This is particularly evident in the qualitative stage of this study as the non-availability of these services contributed to the ‘huge responsibility’ described by nurses during the transitional care period. Therefore, it can be argued that having monitoring and escalation protocols as well as the availability of outreach services could reduce the challenges nurses, patients and their relatives face in transitional care and promote patient safety.

The need to foster collaboration among ICU and ward nurses were addressed in the qualitative stage of this study. Although collaboration among ICU and ward nurses was demonstrated in this study as some ICU nurses relied on ward nurses assessment of the patient and their ability to manage the patient on the ward following a period of critical illness. Collaborative management of patients following a period of critical illness has been identified in previous studies as a factor that improves transitional care as it provides nurses the opportunity to share their skills and ideas which enables them to adopt appropriate measures (Haggstrom and Backstrom, 2014). Nevertheless, Leslie, et al. (2010) indicated that ICU nurses rarely depended on ward nurses judgement of the effectiveness of managing post critically ill patients on the ward rather other measures such as the use of HDUs and follow up supports were used to facilitate patient’s transition. Although there is limited evidence of ward-based activities and input in transitional care (Chellel, Higgs and Scholes, 2006), having ward nurses opinion about patients suitability to be discharged to the ward post-critical illness could cause bias and role interference.

Furthermore, the absence of follow-up services from ICU nurses was identified based on the qualitative findings presented in this study as a factor that affects transitional care. In addition, ward nurses indicated that they often struggle when patients are admitted from the ICU because of a lack of support from ICU nurses. Contrary to this view, the quantitative findings indicated that ward nurses received some form of physical and nursing support from ICU nurses following a period of critical illness. The reason for the difference in opinion regarding ICU support in this study can be attributed to the fact that ICU nurses did not regard follow-up services as a responsibility, so they only visited for personal reasons or based on their relationship with the patient. The use of follow-up services such as outreach services and ICU Liaison Team has been advocated to maximise patient safety and reduce the risk of deterioration and death following a period of critical illness (NICE, 2007; Department of Health, 2000; Endacott and Chayober, 2006). Studies have identified the importance of outreach services in supporting ward nurses, reducing adverse events, reducing length of hospital stay and decreasing rates of ICU readmission (Harrison, et al., 2010; Baker-McClearn and Carmel, 2008; Watson, et al., 2006). Providing support to post critically ill patients would impact positively on the patients and staff through ensuring that ward nurses are supported and patient care is maximised.

The absence of HDUs was equally attributed to the huge responsibility ward nurses have when providing care to patients following a period of critical illness based on the qualitative findings presented in this study. Participants in this study agreed that having an HDU would facilitate the transition process by ensuring that patients care is not withdrawn suddenly. In contrast to this finding, previous studies indicated that the use of HDUs did not improve the transitional care provided to patients following a period of critical illness. According to Ranzani, et al. (2012), there was no difference in mortality rate if patients are discharged directly to the ward or HDU. Similarly, Jean-Louis and Gordon (2015) study revealed that implementing the use of HDUs did not impact on cost, efficiency and patient’s outcome following a period of critical illness. Nevertheless, ward nurses have expressed willingness to provide a high standard of care required by post critically ill patients but because of the nurse-patient ratio on the ward and the high standard of care required by post critically ill patients, ward nurses often struggle (Elliot, Worrall-Carter and Page, 2013; Duffield, et al., 2011; Chellel, Higgs and Scholes 2006). In addition, Enger and Andershed, (2017), study highlighted that post critically ill patients on the ward received suboptimal care because of the inability of nurses to balance patients’ needs with available resources such as human resources, time and skill mix. Therefore, considering the stress level experienced by ward participants in the qualitative part of this study due to the absence of basic clinical equipment such as digital blood pressure monitor. It can be argued that the use of HDUs could be beneficial in reducing the workload of ward staff especially following patients transfer from ICU to the ward.

As presented in this study, there was a difference in the quantitative and qualitative findings of this study regarding the availability of ICU admission and discharge protocol. According to the quantitative findings, discharge checklists were used by ICU nurses to ensure effective discharge from the ICU. Contrary to this view, the qualitative study indicated that absence of ICU admission and discharge checklist impacted on the transitional care provided to patients following a period of critical illness. This is evident in the qualitative finding as patients could be admitted to the ICU and discharged home directly if they can afford to pay for an ICU bed. Similar to this finding, Isamade, et al. (2007) retrospective study revealed that in Northern Nigeria, a queueing approach whereby patients were admitted to the ICU on the basis of first come first served was used to admit patients into the ICU. In addition, Mato, Onwuchekwa and Aggo, (2009), identified that the absence of protocol in admitting and discharging patients from the ICU resulted in the misuse of the ICU. ICU beds were occupied by close relatives of medical staff and sometimes used as a backup for the hospital when there were no available beds, thereby denying access to critically ill patients that required intensive care services. Contrary to this view, studies have revealed that ICU utilisation in developed countries are effective as patients are assessed and classified into a level of care ranging from 0-3 depending on their need for organ support and physiological health status (Baruch and Messer, 2012; Intensive Care Society, 2002). Nevertheless, it is important to note that the difference in organisational setting and funding of healthcare services could play a significant role in determining the implementation and utilisation of admission and discharge checklist for patients following a period of critical illness in Nigeria.

## 8.4 Suggested Measures for Improving Transitional Care

Several measures that could promote patient safety following a period of critical illness were identified in the quantitative and qualitative phases of this study. Both stages of this study identified the need to prepare patients for transitions through planning. Adequate patient preparation pre-transition entails preparing patients early in the ICU for the transition process, and this can be achieved through implementation of discharge plan (Haggstrom and Backstrom, 2014). Previous studies have identified the importance of implementing discharge planning in improving patients and their family members experiences of transitional care as it provides patients and their relatives the opportunity to have an initial contact with ward staff as well as provides them all the relevant information regarding their care (Wu and Coyer, 2007; St-Louis and Brault, 2011). Findings from the qualitative part of this study indicates that despite ICU participants stating their role in physically, clinically and psychologically preparing patients for transition, patients often felt abandoned during the transitional care period as they were not usually informed about what to expect when they arrive on the ward. Therefore, it can be argued that if discharge plan is factored into the transitional care process, patients would be informed about what the transitional process entails thereby promoting safe transition of patients from ICU to the ward following a period of critical illness.

The effectiveness of inter and intra-professional collaboration in providing a safe transition of patients to the ward was emphasised in the quantitative and qualitative stages of this study. Similarly, Costa, et al. (2014) study identified that every member of the healthcare team plays a unique role so, having a safe transition will rely on active collaboration of every member of the healthcare team because working independently could jeopardise patient’s health and put strain on the workforce. Nonetheless, decision-making process which has been identified as an essential component of collaboration as inter-professional team members engage in overt and coordinated sharing of ideas in order to implement an improved quality of care (Rose, et al., 2011). Findings presented in the qualitative aspect of this study identified that nurses play an active role in decision making as they liaise with doctors and other members of the healthcare team at every stage of the transition process. In contrast, Kydonaki, Huby and Tocher (2013), ethnographic study conducted in Europe pointed out that nurses made limited contributions during multi-disciplinary decision-making process because of the level of support they received from senior nurses, the shift structure and medical hierarchy among clinicians. Nevertheless, this study indicates that in addition to some of the transitional care team members such as nurses, doctors, laboratory scientists and pharmacist involved in transitional care, other healthcare staff such social workers should be involved.

The absence of guidelines in transitional care was repeatedly echoed as a factor that impacts on patient safety. According to the findings presented in the qualitative stage of this study, transitional care in Nigeria is driven by a culture of affordability rather than necessity. Similar to this finding, previous studies revealed that patients were allowed to stay in the ICU and were discharged home directly from the ICU because they could afford to pay for ICU care (Isamade, et al., 2007; Mato, Onwuchekwa and Aggo 2009). Having a protocol in place could guide resource allocation by ensuring that only patients that can benefit from ICU care would be admitted and patients that no longer require critical care services are discharged promptly. The absence of guidelines also affected other aspects of transitional care, such as the hand over process. This is evident based on the qualitative findings of this study as there was no communication tool used within the Nigerian healthcare setting and sometimes untrained staff such as healthcare assistants were required to inform ward nurses about any potential admissions they would have which often results in communication breakdown. Previous studies have identified communication breakdown due to poor communication among ICU and ward nurses resulting in deterioration due to delay in initiating patient care post period of critical illness (Elliot, Worral-Carter and Page, 2013; Piers, et al., 2011; McDonnell, et al., 2007). Communication tools such as the Situation Background Assessment and Recommendation (SBAR) tool has been advocated for use in developed countries such as the UK as it facilitates the accuracy and efficacy of communication (Vardaman, et al., 2012; Compton, et al., 2012). Although, previous studies within the Nigerian healthcare setting has indicated the need to adapt communication tools such as Identify, Situation, Observation, Background, Agree a plan and Readback (ISOBAR) (Ogunlabi, 2018). However, this study suggests that there is currently no use of any communication tool within the Nigerian healthcare setting and having a guideline in this regard could facilitate patients’ transition from ICU to the ward through ensuring that accurate patient information is communicated.

Availability of human and mechanical resources was highlighted as a measure that can maximise patient safety. Findings from the quantitative and qualitative study indicated that there was a perceived limited availability of nursing staff and other members of the healthcare team necessary to facilitate the transitional care of patients following a period of critical illness. It appears that the absence of follow-up services in Nigeria was attributed to the fact that there were a limited number of ICU nurses that can provide such services. The limited number of healthcare staff, especially nurses, has been identified as an issue facing the effective delivery of healthcare services globally (WHO, 2013). However previous studies indicated the availability and use of follow-up services such as outreach services in the UK (Harrison, et al., 2010; McDonnell, et al., 2007) and because this services are predominantly provided by nurses (Intensive Care Society, 2002), providing such services would require increasing the number of Nigerian nurses. Also, considering the effectiveness of outreach services in countries where they have been adopted, introducing it in Nigeria, as suggested in this study could facilitate transitional care and maximise patient safety. Absence of other mechanical devices such as inter-communication devices, lifts, ramps, digital observation machines, supplemental oxygen, electrocardiogram machines, blood glucose machine and pulse oximeter makes transitional care challenging for staff, patients and their relatives. The availability of equipment was highlighted by Carter (2008) as a measure that maximises patient safety. Similar findings were identified in previous studies conducted in Nigeria where mechanical ventilators were malfunctioning and vital signs done manually (Mato, Onwuchekwa and Aggo, 2009). In another study, the use of mechanical clinical appliances was hampered due to the absence of electricity which resulted in 75% of mechanically ventilated patients to experience ventilator malfunction and oxygen exhaustion (Ilori and Kalu, 2012). Although findings as presented in this study did not indicate the number of patients that experienced mechanical ventilator malfunction, it does suggests that patients often experience disruption due to electrical failure. Also, patients were sometimes carried through the staircase in the absence of electricity or malfunctioning lift. Therefore, having a steady power supply could promote patients recovery and maximise patient safety following a period of critical illness by ensuring that electrical appliances are powered when required.

Finally, the need to subsidise patients care especially because patients are responsible for paying for their care was stressed in the qualitative part of this study as a measure to maximise patient safety following a period of critical illness. Participants stated that patients were always at risk of delay in commencing the care they required either because they cannot afford critical care or because they cannot pay for the care they already received in the ICU. Similar to this finding, the CCPTM illustrates the role of institutional support in transitional care. Having critical care subsidised for patients that require it could ensure that adequate care is provided to patients that require it, thereby improving patient safety throughout the transitional care period.

## 8.5 Integration of the Critical Care Patients’ Transition Model with Study Findings

This study aimed to explore nurses’ experiences of patients’ transition from ICU to the ward in Nigeria following a period of critical illness. The study objectives are;

* To provide a clear description of patients’ transition processes based on ICU and ward nurse’s experiences.
* To explore participants view on the group of healthcare professionals involved in the transitional care of patients from ICU to the ward.
* To identify ICU and ward nurses perspective of factors affecting transitional care of patients from ICU to the ward in Nigeria.
* To explore participants’ views on measures that can be implemented to improve patient’s outcome following a period of critical illness.

The model [Critical Care Patient Transition Model (CCPTM)] adopted in this study was developed using a combination of Bridges (2009) transition model, Schlossberg’s (1997) and Meleis, et al. (2000) transition theory. These model and theories were combined to develop the CCPTM because some elements of these theories and model are relevant to the transition of patients from ICU to the ward. Thus, developing this model could help the researcher to focus on essential aspects identified in the theories and models that apply to patients transitioning from ICU to the ward.

The CCPTM identified the role of individuals in transition following a period of critical illness. Factors that precipitate transition were described as situation and health/illness-related and that individuals response to transition can be single, multiple or sequential. Also, transition was said to occur in three phases; the ending phase (pre-transition), neutral phase (intra-transition) and the new beginning (post-transition). Clinical intervention such as nursing therapeutics, patient and family input and institutional support were described as measures that facilitate the transition process.

Based on the findings of the quantitative and qualitative studies, the patient was identified as a member of the transition team. However, initiating transition was not only dependent on the patient. Healthcare professionals were involved in the decision process as they depended on patients clinical parameters to decide if a patient can be discharged from the ICU or not. According to previous studies, the patient plays a vital role in the transition process as they are often involved either through considering their clinical parameters or communicating with them about their discharge from the ICU (Lee, et al., 2009; St-Louis and Brault, 2011; Ludin, Arbon and Parker, 2013; Haggstrom and Backstrom, 2014). In a study conducted by Sandoval-Moreno and Díaz-Henao (2018), although patients would have been transferred out of the ICU following a period of critical illness, patients’ non-modifiable factors such as patients’ respiratory compromise and patients requiring tracheostomy contributed to 95% and 82% respectively of failed mechanical ventilation weaning which resulted in delayed ICU discharge. This suggests that despite patients factors contributing to ICU discharge decision, healthcare providers play an essential role in initiating the transition process.

Nevertheless, the role of the individual (patient) during transition was highlighted in the CCPTM as no transition is the same. Transition experiences based on the qualitative findings of this study was affected by the inequality experienced by the different groups of patients. The inequality was attributed to different factors such as poor financial background, social-economic status and lack of patients and their relatives' knowledge about the benefits of attending the hospital early. Previous studies conducted in developing countries notably Nigeria identified that ICU beds were occupied by close relatives of medical staff and sometimes used as a backup for the hospital when there were no available beds thereby denying access to critically ill patients that require intensive care services (Mato, Onwuchekwa and Aggo, 2009). In a similar study, Onwujekwe, Uzochukwu and Onoka (2011), stated that majority of the total health expenditure (70%) is generated by patients and their relatives as they are required to make out-of-pocket expenditure for the healthcare services they receive which includes critical care. In contrast, developing countries such as the UK, healthcare services are mainly provided through the National Health Service and is funded by the government (Office for National Statistics, 2018). Therefore, it can be argued that having such services that exist in developing countries such as the UK could minimise the inequality that patients experience based on the findings of this study. This is because, despite patients and their relatives' socio-economic background, they would not have to worry a lot about payment of their healthcare which could improve their knowledge and interest in attending hospital early thereby improving their transition experience.

Previous studies have identified that patients following a period of critical illness are vulnerable and are at risks of deterioration mainly due to reduction in patients monitoring and difference in culture within the clinical setting (Li, Stelfox and Ghali, 2011; Cognet and Coyer, 2014). According to findings presented in the qualitative stage of this study, the patient’s transitions were mainly single and sequential as the risk of deterioration following a period of critical illness was low. This was attributed to the high cost of care borne by the patients and that patients could be left in the ICU and discharged home directly from the ICU. Similar to the findings presented in this study, Ilori and Kalu (2012) identified a small number of patients required transition from ICU to the ward because most patients were discharged home directly from the ICU. Furthermore, Poluyi, et al., (2016), recorded a total of 97.6%, while Mato, Onwuchekwa and Aggo (2009) identified 41.3% of patients were transitioned to the ward following a period of critical illness. The difference in the findings can be attributed to the fact that most of the patients admitted to the ICU in Mato, Onwuchekwa and Aggo (2009) study did not require critical care services. However, they were admitted into the ICU because they were highly influential and could afford to pay for ICU services. Nevertheless, transitioning patients directly home from the ICU could imply that there was reduced risk of deterioration, thereby minimising the risk of multiple transitions as patients were clinically fit to be discharged home.

The CCPTM identified three phases of transition; the ending (pre-transition) phase, neutral (intra-transition) phase and the new beginning (post-transition phase). These phases begin at a certain point of the transition processes and could sometimes overlap. Findings presented in the qualitative part of this study indicate that transitions often occur and is initiated based on the assessment of patients physiological parameters and collaborative clinical decision to initiate the transition process. Similar to these findings, McLaughlin, et al. (2007) highlighted that patients clinical parameters are assessed which will help the managing team to make decision about patients stability to be stepped down and managed in another area of care. Assessing patients for their suitability to be transferred to the ward following a period of critical illness was identified based on the qualitative findings presented in this study as the first step in the transitional care process which often involves nurses and other members of the healthcare team. Pre-transition planning and preparation has been identified as an essential aspect of transition which helps to ensure that patients transition are unique and this is achieved through active collaboration, encouragement, support and communication (McDonnell, et al., 2007). Despite that patients may arrive on the ICU with similar health needs and discharge at the same time, their response to transitions could differ significantly.

The CCPTM that informs this study emphasises on the need to adequately prepare patients pre-transition as it could help them dissociate from previous situation thereby facilitating their adaptability at the next phase of their transition process (Bridges, 2009). Patient’s preparation pre-transition was demonstrated in this study as participants identified that patients were prepared physically, clinically and psychologically for transition. This is evident as ICU participants stated their role in transitional care which includes ensuring that patients have been adequately weaned off mechanical ventilation, intubation and are sure that patients can cope without the help of these mechanical devices. Similar to this findings, previous studies indicate that weaning off mechanical ventilator is essential because prolonged use can be harmful to patients as it can interfere with the transition process (Blackwood, et al., 2010; Chayober, et al., 2008). Nevertheless, based on the findings presented in the qualitative part of this study, ward participants opined that patients often felt abandoned during the transitional care period as they were not usually informed about what to expect when they arrive on the ward. Therefore, it can be argued that participants’ perception of patients preparation pre-transition is limited and does not encompass providing information relevant to ward-based care. This echoes the need for transitions to be planned especially with emphasis on the need to provide information relevant to the continuity of care that patients will require as well as patients involvement in the plan.

Nevertheless, there was mixed opinion regarding ward nurses involvement and role in transitional care with regards to ward nurses pre-assessing the patient before ICU discharge as identified in the qualitative part of this study. Some of the participants stated that patient’s assessment for suitability of ICU discharge was done in two phases; by the ICU and ward nurses. The issue of controversy among healthcare professionals is not uncommon (Haggstrom and Backstrom, 2014). Kross and Curtis (2012) described decision making as an important component of interprofessional team collaboration. However, evidence shows that nurses have a limited input in the decision-making process during transitional care and studies have identified factors that contribute to this trend (Kydonaki, Huby and Tocher, 2013; Kross and Curtis, 2012). Hierarchical issues was one of the factors identified that hindered collaboration among nurses and other members of the healthcare team (Kydonaki, Huby and Tocher, 2013). This is similar to the findings presented in the qualitative part of this study as ward nurses seemed disempowered and ICU nurses viewed as having superior knowledge about the patient and their care in transition following a period of critical illness. However, considering that patients are at risk of deterioration following a period of critical illness which results in increased morbidity requiring ICU readmission or even death (Chayober, et al., 2008; Crocker and Timmons, 2008; Stacy, 2011). There is a need for healthcare professionals to minimise controversies in order to maximise patient safety following a period of critical illness.

The intra-transition (neutral) phase of the CCPTM is characterised by the feeling of anxiety and uncertainty about an individual future, so they let go of their past and strive to get accustomed to new ways of doing things (Bridges, 2009). In contrast to the CCPTM, findings presented in qualitative part of this study suggests that participants perceived patients transition as a positive step and patients do not often refuse to be transferred out of the ICU to other areas of care. Previous studies have stated that transition from ICU to the ward following a period of critical illness can be stressful for patients and their relatives (Ramsay, et al., 2013; Stelfox, et al., 2013; Campos, et al., 2011). However, considering nurses perceived feeling of financial relief that patients and their relatives have following ICU discharge, it is not surprising why participants in the qualitative part of the study described patients ICU discharge as a positive experience. Nevertheless, considering that participants involved in this study were only nurses, it is worth exploring patients and their families’ opinion regarding their transition from ICU to the ward following a period of critical illness.

The post-transition (new beginning) phase identified in the CCPTM begins when the patient is on the ward and is often not static as the patient’s condition could improve or deteriorate thereby requiring either discharge home, readmission to the ICU or even die. Findings presented in this study suggests that patients do not often deteriorate, thereby reducing the risk of ICU readmission or even death. Patients deterioration, ICU readmission and increased mortality are often associated with post critically ill patients (Wu and Coyer, 2007; St-Louis and Brault, 2011). Although the risk of patient’s deterioration as identified in the qualitative part of this study is minimal, measures that might promote patient safety were suggested based on the findings of this study. These measures include the need to provide High Dependency Units (HDU) as a means to facilitate the transition process. HDUs serves as intermediate care between the care provided in the ICU and on the ward for patients following a period of critical illness with the aim to maintain continuity of patients care at the level lower than the ICU and higher than ward care (British Association of Critical Care Nurses, 2014). Nevertheless, its use in facilitating transitions from ICU to the ward remains controversial. According to Capuzzo, et al. (2014), multinational observational cohort study conducted in seventeen European countries involving 5834 patients revealed that mortality rate was higher in hospitals without HDUs than in hospitals with HDUs. In contrast, the use of HDUs increased the cost for providing care to critically ill patients who were transferred to the HDU before they were transferred to the ward (Solberg, et al., 2008). Also, there was no difference in the efficiency and patient’s outcome following a period of critical illness as observed in Ranzani, et al. (2012) retrospective study where a 90-day mortality rate was identified in patients discharged directly to the ward or HDU.

Despite the controversies surrounding the impact of HDUs on patients outcome following a period of critical illness, HDUs could still be beneficial in supporting ward nurses through ensuring that very ill patients are not often discharged to the ward. This is important as previous studies have revealed that most ward nurses lack the experience and nurse-patient ratio required to care for post critically ill patients discharged directly to the general ward (Elliot, Worrall-Carter and Page, 2013; Dunfield, et al., 2011; Haggstrom, Asplund and Kristiensen, 2012; James, Quirke and McBride-Henry, 2013). Although, ward nurses have expressed their willingness to provide a high standard of care required by post critically ill patients, they are often unable to deliver such care because of the large number of patients they have under their care (Haggstrom, Backstrom and Kiestiensen, 2009). Owing to these, it can be argued that implementing the use of HDUs might ensure that patient’s condition has been stabilised and ward nurses would be better prepared and equipped to handle the patient thereby maximising patient safety.

Another finding from the qualitative part of this study indicate that transition of patients from ICU to the ward involves the psychological aspect while transfers entail the physical movement of patients from ICU to the ward and these activities do not occur in isolation. This is evident as some members of healthcare professionals were only involved in the physical transfer of patients from ICU to the ward. Although the need for inter and intra-professional collaboration in improving the quality of patient care is essential, maximising patient safety and providing positive patient outcome cannot be overemphasised (Kerfoot, et al., 2006; Louise, 2011). Certain facilitators have been identified to improve collaboration in transitional care. According to Costa, et al. (2014) qualitative study conducted in a multi-centre hospital in USA, structural and cultural facilitators were identified as factors that improved inter-professional collaboration. Structural facilitators were described as hospital-based interventions such as clinical protocols, daily care rounds and checklists while cultural facilitators are team member’s characteristics such as trust and value that enhances inter-professional collaboration among staff (Costa, et al. 2014). However, the need to define the roles of every member of the healthcare team is important to prevent job interference, thereby facilitating the transition process.

The CCPTM emphasised on the importance of communication, encouragement, support, inter, and intra-professional collaboration as measures to facilitate transition processes from ICU to the ward post-critical illness period. The clinical intervention aspect of the CCPTM described the role of clinical intervention throughout the transitional care period which is achieved through institutional support, nursing therapeutics, patients and their relatives' input. Similar to the CCPTM, findings from the quantitative and qualitative parts of this study identified several measures that could maximise patient safety in transitional care such as provision of financial support for critically ill patients, increased staff level, staff training and provision of resources. Previous studies conducted in developed countries have identified that organisational factors such as staffing issues impacts on patient’s outcome following a period of critical illness. For instance, while Massey, Aitken and Chayober (2009), identified that low staffing levels increased ward nurses workload, Cox, James and Hunt, (2006), stated that distractions from other patients contributed to poor quality of care post critically ill patients received while on the ward. Having the right staffing level has been identified as an essential component in maintaining the quality of patients care and maximising patient safety post-critical illness period (Stone and Plumb, 2011). In developing countries such as Nigeria, staffing levels remains an issue within the healthcare system due to hospital bureaucracy, poor working environment, inadequate medical equipment and instrument (Federal Ministry of Health, 2010; Iloh et al., 2012). In order to address these issues, Akande and Kuranga, (2013), suggested the use of system maintenance mechanisms in determining the staffing level required to provide efficient patient care. However, the effectiveness of adopting this approach in maximising patients care has not been examined. Also, this approach does not address other organisational factors such as poor working environment and limited availability of hospital resources which the Nigerian healthcare setting currently faces.

# Chapter Nine

# Concluding Remarks

## 9.1 Introduction

This study has so far explored nurses’ experiences of patient’s transition from ICU to the ward in Nigeria following a period of critical illness. Nevertheless, it is essential to note that this research serves as a learning curve for the researcher. Therefore, this chapter presents an overview of this study’s strengths and limitations of the research, the contribution of this research to knowledge, recommendations for further study and recommendations for practice**.**

## 9.2 Limitations of the Research

Although this study has provided a robust exploration of patients’ transition from ICU to the ward following a period of critical illness, the reader must also be made aware of any limitations the study might have. This study adopted an explanatory mixed method design, so the findings of the quantitative component cannot be separated from the qualitative component. Neither part of the whole study is expected to exist independent of the other. This is because the sole aim of the quantitative component was to gain an overview of nurses’ experiences of patient transition from ICU to the ward and to help generate an interview guide for the qualitative part of the study. Adopting an explanatory mixed method approach enhanced the findings of this study as quantitative findings were further explored qualitatively. Nevertheless, the explanatory mixed method approach was time-consuming, which then resulted in the study been carried out on a small scale. If a single method approach were adopted, the study would have been done on a larger scale, thereby providing a better reflection of a patient’s transition from ICU to the ward-based on nurses’ experiences.

Another limitation of this study is the study population, mainly because a single-centre study approach was adopted. This is important as there are about 59 tertiary hospitals in Nigeria, and this study was carried out within one tertiary hospital. Therefore, it can be argued that this study is not a representative sample of the total number of tertiary hospitals in Nigeria and findings should not be applied across all tertiary hospitals nationally and internationally. Furthermore, because this study explored Nigerian nurses experiences of patients transition from ICU to the ward following a period of critical illness in MTH alone, findings from the study is only limited to this study setting. Subsequent studies should seek to adopt a multi-centre study approach which could provide a different outcome.

Also, this study only included nurses without considering the views of patients, and other members of the healthcare team such as doctors, pharmacists and porters. Including this group of people in this study could impact on the outcome of the research because findings from this study indicate that they all make up the transitional care team. Furthermore, considering that Nigeria is a multi-cultural country, reflecting the different cultural backgrounds by comparing views of nurses from different parts of the country could yield a different outcome. However, that was not the case in this study as the study was carried out within a tertiary institution in the southern part of Nigeria. This notwithstanding, findings of the research is still trustworthy, and recommendations can still be adopted because it could serve as the basis for other studies to be carried out.

Furthermore, the data collection instrument was developed by the researcher based on the available literature. Although the supervisors of this research reviewed the data collection instrument, the questionnaire and interview guide, used in this study has not been used previously. Therefore, this affects the robustness of the data collection instrument which could affect the data obtained. Adopting a data collection instrument that has been tested and validated would have been more appropriate, but in this study, there was no available tool to be used. Therefore, the researcher expects findings from this study to be tested before applying its recommendations. In addition, the use of the staff room for interviews contributed to interruption of the interview process as staff were advised to knock before coming into the staff room in order to maintain participants’ privacy and confidentiality.

Finally, the quantitative study was not practically carried out by the researcher primarily because it was intended to provide an overview regarding nurses’ opinions about patient transition from ICU to the ward which was used to develop interview guide for qualitative data collection. Also, because this study was carried out in Nigeria, distance was an issue, so a gate-keeper/research assistant was used instead to distribute and collect the questionnaire. This would have impacted on the outcome of the research as the gate-keeper/research assistant was an insider researcher. Protocols would not have been maintained maximally because the researcher was not available to monitor the quantitative research process. This notwithstanding, the questionnaire was prepared and designed by the researcher, which impacts on the validity and reliability of the questionnaire.

## 9.3 Contributions of this Research to Knowledge

This study provides a detailed description of patients transition from ICU to the ward within a Nigerian healthcare setting following a period of critical illness based on nurses experiences. Although previous studies about patients transition from ICU to the ward has been done in developed countries, there is no published evidence of such studies in developing countries such as Nigeria. Studies related to patients transition from ICU to the ward conducted in Nigeria were mainly retrospective studies. These studies did not consider nurses role in transitional care based on their experiences. Therefore, this study provides evidence of patients transition from ICU to the ward following a period of critical illness in Nigeria based on nurses experiences.

This study identified that nursing assessment is the first step in the transitional care process as it helped to ascertain the stability of patients to be transferred to the ward. In addition, the need for collaboration among ward nurses and other members of the healthcare team such as doctors, pharmacists, laboratory scientists, cleaners and healthcare assistants was also highlighted in the study. The transitional care team, as described in the study, comprises of healthcare professionals, the patient and their family members. These team members play a vital role in transitional care so, for patients transition from ICU to the ward to be effective, every member of the transitional care team needs to be involved.

The study identified that patients transition is synonymous to transfer as it was difficult to separate the physical movement of patients from ICU to the ward from their psychology. Furthermore, the need to individualise transitional care to post critically ill patients was highlighted as transition differed among patients depending on their state of health, financial background, clinical diagnosis, level of patients and their families knowledge of transitional care.

A model of transition; Critical Care Patients Transition Model (CCPTM) was identified in the study. The CCPTM identified the patient as a significant determinant of transition from ICU to the ward. Transition precipitators for post critically ill patients was described as health/illness-related, and patients response to transition could be single, multiple or sequential. Transition according to the CCPTM occurs in phases; the ending phase (Pre-transition), neutral phase (intra-transition) and the new beginning (post-transition). However, the outcome of transition depends on the clinical intervention; nursing therapeutics, the patient input, family input and institutional support. Although the CCPTM can be applied to the Nigerian healthcare setting, it could equally be applied beyond the Nigerian context. This is because the CCPTM provides a practical approach to patients transition from ICU to the ward following a period of critical illness.

## 9.4 Recommendations for Future Research

The findings of this research have offered greater insight into the transition of patients from ICU to the ward in Nigeria, but this research has also highlighted several interesting areas that might benefit from further research. Critical review of literature around patient’s transition from ICU to the ward revealed a dearth of evidence regarding this phenomenon in Nigeria. Some of the available literature adopted a retrospective approach by simply reviewing clinical records. However, because this study only explored the views of ICU and ward nurses, future research in this field could include other members of the healthcare team such as doctors, pharmacists and laboratory scientists that are equally involved in transitional care for this group of patients. Exploring the views of other members of the healthcare team is essential to ensure that their opinion is collected and considered, which could to minimise bias and provide robust evidence that could promote patient safety in transitional care. In addition, patients have been identified as key members of the transitional care team so, involving them in future research would be necessary to identify other measures that could impact on transitional care of patients following a period of critical illness. Although this study identified some concerns raised by ward and ICU nurses which patients and families face such as cost of ICU care, it is essential to include patients and their relatives in subsequent research in order to validate these concerns so that appropriate measures can be implemented to maximise patient safety. Therefore, future research should include post critically ill patients and their relatives which could provide a better understanding from their perspective on transitional care and identify their concerns to develop measures that can be adopted to maximise patient safety.

Furthermore, this research adopted a single-centre approach as it was conducted within one tertiary hospital in Nigeria. Future research could include multiple tertiary hospitals as well as private and state hospitals. Furthermore, findings from this study can be compared to other tertiary healthcare settings to identify any difference or similarities and provide a credible explanation as to the outcome of such study. This is essential in contributing to providing robust evidence on patient safety and measures that can be adopted to maximise patient safety throughout the transitional care period. Also, including other tertiary institutions will identify the impact of culture in transitional care as it will provide opportunity for the different cultural backgrounds in Nigeria to be explored.

Another aspect that can be explored further is the availability of any existing transition protocols within other healthcare settings to establish if this impacts on transitional care in such an establishment. A comparative study could be useful in this regard to identify different approaches to transitional care that exists within the Nigerian healthcare setting. Findings from such study could help develop more practical measures to a safe patient transition from ICU to the ward that can be generally adopted nationally.

Nevertheless, the recommended measures in this study, such as provision of follow-up care, provision of guidelines and staff training, should not be implemented without first establishing its effectiveness in promoting patient safety. This can be achieved by carrying out trials on them to establish their practicality and effectiveness in maximising patient safety following a period of critical illness. Therefore, further study is required to establish the suitability of implementing discharge protocols within the healthcare setting where this research was conducted.

Furthermore, this research adopted an explanatory mixed method approach which relied solely on the experiences of nurses and their opinion regarding a patient’s transition from ICU to the ward following a period of critical illness. Therefore, other alternative research approaches such as ethnography or observational studies could be adopted in future research on patient’s transition from ICU to the ward. Adopting other alternatives to research is essential to address contextual issues that can affect the transitional care of patients from ICU to the ward. Also, it will give the researcher a proper understanding of transitional care based on the evidence they see rather than depending on the experiences of healthcare professionals (nurses) involved in transitional care.

## 9.5 Recommendation for clinical practice

Most research in health care settings is concerned with exploring current practice and identifying how that practice might be improved. Based on the findings presented in this thesis, the following recommendations are offered.

1. Previous studies have stated that nurses play an essential role in transitional care of patients following a period of critical illness (Ramsay, et al., 2013; Haggstrome and Backstrom, 2014). This study supports this notion by identifying that nurses are actively involved in both the transfer and the transition processes of post-critically ill patients. Nevertheless, several factors affecting transitional care such as absence of ICU admission and discharge protocol, lack of resources, absence of handover guidelines and absence of inter-communication devices were equally identified in the study. As was pointed out in the findings chapter, having an ICU admission and discharge protocol would ensure that the ICU is used for critically ill patients who require it. In addition, implementing the use of discharge protocol could facilitate the effective discharge process by ensuring that patients discharge is planned and safe.
2. Some of the structural issues identified in this study, such as the absence of ramps for transferring patients from ICU to the ward can be considered. This is to ensure that patients can be transferred safely and promptly in the absence of devices that require electricity such as lifts especially in the events of electricity cessation or lift malfunction. In the absence of electrical malfunction, it could be cheaper to maintain ramps than lifts, thereby impacting on the transition and transfer processes of patients from ICU to the ward. Introducing ramps in Nigerian hospitals on a national scale could impact on patient’s transfers primarily because of the problem of constant electricity supply required to powers lifts.
3. Improved patient preparation should be done prior to the patient’s transition from the ICU to the ward. Patients’ preparation should be commenced early while the patient is still in the ICU in order to ensure that they are psychologically prepared for the transition process, thereby reducing their anxiety level. This can be achieved by providing adequate information to the patient, answering their questions and providing reassurance to them.
4. Furthermore, the use of intercommunication devices can be introduced to minimise delays in communication among staff. The use of intercommunication devices is particularly crucial in emergencies when patients are deteriorating, and help is required urgently as the use of porters and healthcare assistants could result in delays and passage of distorted information. The use of communication tool such as SBAR has been identified as a measure to facilitate communication among inter and intra professional teams. Presently, no communication guideline is currently being used to communicate among staff in the Nigerian healthcare setting. This is particularly dangerous as information could be missed or not communicated correctly therefore, adopting the use of SBAR could provide a more structured communication. Similarly, it could promote patient safety by ensuring that vital patient information is communicated through its ability to deliver precise structured information about the patient. Nevertheless, staff should be trained on the use of SBAR in order to accurately grasps and implement all its element effectively.
5. Implementation of other measures such as staff training and subsidising critical care for patients requiring the ICU should be considered within the Nigerian healthcare setting. Staff training which could include elements of patients transfer and transition is essential to ensure that nurses’ knowledge and skills are implemented within the hospital to improve transitional care and ensure maximum transitional care experience for the staff as well as patients and their families. On a national scale, subsidising the cost of critical care could impact on patient’s mortality and morbidity as patients will be encouraged to seek help earlier before their condition deteriorates. Furthermore, it could minimise the misuse of ICUs as only patients that require critical care would be admitted to the ICU irrespective of their financial, social or economic status. Subsidising critical care could also prevent ICU discharge delays that often arise due to the need to maintain protocol for making payment, especially at weekends or past official working hours. This could facilitate patients’ transition process from the ICU as patients, and their families would not be required to pay for their treatment before being transferred to the ward following a period of critical illness.
6. Finally, the use of Critical Care Outreach Services (CCOS) should be implemented in Nigerian hospitals given its role in supporting patients and ward nurses following a period of critical illness in other countries such as the UK. Also, HDUs should be introduced as this could ensure that patients care is not drastically withdrawn, thereby putting patients at risk of deterioration. Considering the relevance of CCOS and HDU’s in maximising patient safety and supporting ward staff post period of critical illness, implementing these measures on a national scale in Nigeria could facilitate transitional care process.

## 9.6 Conclusion

This study aimed to explore the experiences of nurses about the transition of patients from ICU to the ward following a period of critical illness in a Nigerian context. A significant contribution to knowledge that this study offers is to capture Nigerian nurses’ experiences of transitional care following a period of critical illness. This is important as previous studies around patients transition from ICU to the ward conducted in Nigeria were done retrospectively by reviewing hospital records. Undertaking this study provides evidence of transition based on Nigerian nurses experiences through nurses’ ability to express their understanding of patients transitions and state their roles in transitional care. The study supports that interprofessional collaboration is an essential factor that impacts on patient safety in transitional care by identifying the unique role every member of the healthcare team plays throughout the transitional care period. Although only nurses participated in this study, this study provides basis on which other studies around patients’ transition from ICU to the ward can be done in Nigeria.

Furthermore, challenges facing transitional care in Nigeria such as absence of ICU admission and discharge protocol, absence of inter-communication devices and lack of human and mechanical resources were identified as factors that impacts on transitional care. This study identified that because of some of these challenges, patients care following a period of critical illness can be hampered due to the absence of some moving and handling equipment such as the lift. Also, the use of healthcare assistants and porters as means of communication because of the absence of inter-communication devices could lead to distortion in communication among nurses because they do not have the required level of education to handle such conversations. Nevertheless, the study identified that information provided by healthcare assistants are mainly required to enable the ward staff to prepare for any potential admission from the ICU. Cost of ICU care was equally identified as a challenge facing transitional care as it affects patient’s decision to be admitted into the ICU. Evidence from this study shows that patients and their relatives are responsible for paying for their care and because of the high cost of critical care, patients are often reluctant to accept critical care even when there is a clear indication for ICU admission. This results in ICUs being used based on affordability rather than necessity. Similarly, ICU discharges are often hampered because of the affordability of critical care payment. Therefore, measures to maximise patient safety and improve transitional care following a period of critical illness were suggested.

Some of the suggested measures that can promote patient safety in transitional care includes provision of clinical equipment such as suction machines, blood pressure monitors, provision of ramps in place of lifts, staff training and provision of follow-ups post ICU discharge. These suggestions were made based on some of the disruptions often experienced in transitional care. For instance, there were disruptions to patients transfers due to the absence of functioning lifts and absence of ramps which resulted in delays in initiating patient care post-critical illness period. Furthermore, subsidising ICU care at a national scale could result in ICUs being used based on its necessity rather than affordability. This could promote early ICU admission, early clinical intervention and better patient outcome following a period of critical illness.

Nevertheless, applying findings of this study should be done with caution bearing in mind some of the limitations of the study, such as been a single centre research and that the study participants were only nurses. Having identified in previous studies that ICUs in Nigerian are found in tertiary healthcare institutions and federal medical centres, including multiple hospitals and other members of the healthcare team could yield a different outcome. However, because Nigeria is a multi-cultural country, including participants from the different cultural regions would have provided another perspective of a patient’s transition from ICU to the ward in Nigeria. This notwithstanding, findings of this study are robust and can be transferred to other settings with similar characteristics. Finally, it can serve as a basis on which future research relating to patient transition from ICU to the ward in Nigeria could be undertaken.

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Nosa Orobaton, MBBS, Dr.PH., is Chief of Party for the BASICS Project in Eritrea. He was trained at the University of Ibadan (Nigeria) and received his public health degree from the Johns Hopkins University, Baltimore (USA). He has major research interests in health communication, reproductive and family health, and possesses many years experience working on health systems development in Africa and Asia.[Malekzadeh](https://www.ncbi.nlm.nih.gov/pubmed/?term=Malekzadeh%20J%5BAuthor%5D&cauthor=true&cauthor_uid=25276725), J., [Mazluom](https://www.ncbi.nlm.nih.gov/pubmed/?term=Mazluom%20SR%5BAuthor%5D&cauthor=true&cauthor_uid=25276725), S.R.,[Etezadi](https://www.ncbi.nlm.nih.gov/pubmed/?term=Etezadi%20T%5BAuthor%5D&cauthor=true&cauthor_uid=25276725), T. and  [Tasseri](https://www.ncbi.nlm.nih.gov/pubmed/?term=Tasseri%20A%5BAuthor%5D&cauthor=true&cauthor_uid=25276725), A., 2013. A Standardized Shift Handover Protocol: Improving Nurses’ Safe Practice in Intensive Care Units. *Journal of caring science,* [e-journal] 2(3). Available through: Anglia Ruskin University Library website <http://libweb.anglia.ac.uk> [Accessed 13 August 2017].

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# List of Appendices

**Appendix 1: Questionnaire cover letter**



15/06/2015

Dear colleague,

**Subject: Invitation to participate in research exploring the safe transition of patients from ICU to general wards in Nigeria.**

I am a full-time research student undertaking a PhD programme at Anglia Ruskin University in the UK. My research will explore the experiences and perceptions of nurses in providing a safe patient transition from the ICU to general wards following a period of critical illness.

The research project adopts a qualitative research design with two phases of data collection: a questionnaire and a semi-structured interview. I would like to invite you to participate in phase 1 by completing the questionnaire. You will find further information about my research in the Participant Information Sheet attached to this letter. The Participant Information Sheet explains the purpose of the research study, with particular emphasis on the implications for your involvement.

If you are willing to participate in this research, you simply need to complete and return the enclosed questionnaire.

If you have any queries regarding the research project, that are not addressed by the Participant Information Sheet, please email me at

Kind regards,

Geraldine Okiwelu

Research Student

Faculty of Health, Social Care and Education

Anglia Ruskin University

East Road

Cambridge

CB1 1PT

UK.

**Appendix 2: questionnaire Participant Information Sheet**

**PARTICIPANT INFORMATION SHEET**

**Exploring the safe transition of patients from ICU to the ward in Nigeria: An exploration of the experiences of nurses.**

You are being invited to participate in this research project about the transfer of patients from ICU to the ward at Delta State University Teaching Hospital (DELSUTH), Oghara. Before you decide to participate in this research, it is important for you to understand what this research is about and what your participation would involve. Please read the following information. Please contact the researcher if you have any further questions.

***What is the purpose and value of this research?***

This research is seeking to explore the experiences and perceptions of nurses regarding the safe transfer of patients from ICU to wards in Nigeria. It is hoped that this research will help to identify strategies that might be implemented to improve patient transition from ICU to the ward.

***Why you have been invited to take part.***

As a registered nurse working in either ICU or on a general ward at DELSUTH, you may have been involved in the transfer of patients from ICU to the ward. You have been invited to participate in this research because I wish to explore your experiences, perceptions and knowledge during this period of transition from the ICU.

***Who is organising the research?***

The research is being organised and undertaken by myself, Geraldine Okiwelu, as part of my doctoral studies at Anglia Ruskin University. All documentation, notes and data will be seen and analysed by myself, with support from my academic supervisors (Dr Leslie Gelling and Dr Mansour Mansour).

***What will happen if you agree to take part in this research?***

If you are willing to participate in this research, you will need to complete and return an anonymous questionnaire within one week. It should not take you longer than 30 minutes to complete the questionnaire. Because the questionnaires are anonymous, it will not be possible to identify you from the answers you provide. A box will be provided for you to return your completed questionnaire. The information you provide in your questionnaire will be analysed and will help to develop an understanding of the patient’s transition from ICU to the ward.

This is the first part of a larger research project. In the second part of this research, participants will be interviewed about their experiences. If you might be interested in being interviewed in the second part of this research, please contact the researcher, and you will be sent more information.

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

Results of this research will be presented in my doctoral thesis and submitted for publication in peer reviewed journals and presented at professional conferences. All findings will be presented in such a way that it will not be possible to identify anyone who has participated in this research.

***Do I have to participate in this research?***

No. You do not have to take part in this research. Your decision to participate in this research is a voluntary one, and I will not know who has or who has not participated.

***Can I withdraw from the research after it has started?***

If you decide to participate in this research, you will complete an anonymous questionnaire so it will only be possible to withdraw from this research until the questionnaire has been returned.

***Are there any risks associated with this research?***

It is not anticipated that there will be any risks to you from participating in this research. In the unlikely event that you become upset or distressed during the completion of the questionnaire, please do not continue completing the questionnaire.

***Will my legal right be affected by participating in this research?***

Your legal rights are not affected by participation in this research project. You are entitled to withdraw at any stage.

***What will happen to any information/data that are collected from you?***

Data for this research is being collected anonymously, so it will not be possible to identify anyone from their responses in the questionnaire. No personal information will be collected about you.

***Are there any benefits from participating in this research?***

You will not benefit from participating in this research, but it is hoped that this research will have an impact on the future care provided for patients during the period of transition from ICU to the ward.

***How will your participation in this research be kept confidential?***

Because of the way that data is being collected for this research, it will not be possible to identify anyone who has participated in this research.

***Contact for further information***

If you have any further questions or concerns about this research, or your involvement in it, please do not hesitate to contact me by email at

If you have any concerns you wish to direct to the project Supervisors, please contact Dr Leslie Gelling or Dr Mansour Mansour.

If you have any concern regarding the conduct of the research, you can either email or call Dr Okonta Patrick, chairman DELSUTH HREC

**Thank you for taking the time to read this information and for considering taking part in this research.**

**Appendix 3: ICU participants’ questionnaire**



Dear participant,

Thank you for accepting to take part in this questionnaire survey. These questions aim to explore ICU nurses experiences and perceptions of providing a safe patient transfer from the ICU to ward.

In section A, please tick the appropriate box based on your choice

SECTION A

1. Gender?

Male Female

1. Age range?

< 18 19 - 29 30 – 39 40 – 49 50 – 59 60 – 69

1. Qualification? Please tick all that apply

RN RN/RM BSN MSN Others

3b. Please specify ........................................................................................

1. Years of working experience?

< 1year 1 – 3 years 4 – 6 years 7 – 9 years 10 years plus

1. Shift type?

Day shift Night shift Both Others

5b. Please specify ....................................................................................................

SECTION B

In section B, please tick the appropriate response and provide as much additional information as possible.

1. Have you been directly involved in patient transition from ICU to the ward?

Yes No

1. Who is involved in transitioning patients from ICU to the ward?

Nurses Doctors Pharmacists Physiotherapist family Patient Others

7b. Please specify .........................................................................................

1. Are there any transition procedures or protocols?

Yes No Don’t know

1. What key pieces of information do you communicate to ward nurses during transition?

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1. Do you have follow-up visits following a patient’s transition from the ICU?

Yes No Don’t know Sometime

1. If you do have follow-up visits, what are the reasons for these visits? (please tick all the boxes that apply)

Professional reasons Social reasons Family reasons Others

11b. Please specify....................................................................................

1. What do you think could be done to further promote the safe transition of patients from ICU to the ward?

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I would like to thank you for taking the time to complete this questionnaire.

The questionnaire can either be returned immediately or within one week from the receipt of the questionnaire. If the questionnaire cannot be returned on the same day, a locked box will be kept on the wards where questionnaires were distributed so you can drop them at your convenience.

If you have any queries regarding the research project that are not addressed by the Participant Information Sheet, please email me at

**Appendix 4: Ward participants questionnaire**



Dear participant,

Thank you for accepting to take part in this questionnaire survey. These questions aim to explore ward nurses’ experiences and perceptions of providing a safe patient transfer from the ICU to the ward.

In section A, please tick the appropriate box based on your choice.

SECTION A

1. Gender?

Male Female

1. Age range?

< 18 19 -29 30 – 39 40 – 49 50 – 59 60 – 69

1. Qualification?

RN RN/RM BSN MSN Others

3b. Please specify .....................................................................................

1. Years of working experience?

< 1 year 1 – 3 years 4 – 6 years 7 – 9years 10 years plus

1. Shift type?

Day shift Night Both Others

5b. Please specify.................................................................................

SECTION B

In section B, please tick the appropriate response and provide as much additional information as possible.

1. What are the key issues to consider when receiving patients on the ward post-discharge from ICU?

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1. What information of patient is communicated to you during the patient transition?

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1. Do you have support from ICU nurses following discharge from the ICU?

Yes No Don’t know

1. What type of support do they provide?

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1. Do you think the support is necessary?

Yes No Don’t know

1. What measures could be used to further promote safe patient transition to the ward post-critical illness?

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I would like to thank you for taking the time to complete this questionnaire.

The questionnaire can either be returned immediately or within one week from the receipt of the questionnaire. If the questionnaire cannot be returned on the same day, a locked box will be kept on the wards where questionnaires were distributed so you can drop them at your convenience.

If you have any queries regarding the research project that are not addressed by the Participant Information Sheet, please email me at

**Appendix 5: Questionnaire Debrief Letter**



Dear colleague,

**Re: Invitation to participate in research into exploring the safe transition of patients from ICU to the general ward in Nigeria (Phase 2)**

I would like to invite you to take part in Phase 2 of this research, which will involve one-to-one interviews.

You will find more information about this part of the research and the interviews in the attached participant information sheet.

If, after reading the information sheet, you would like to participate in this part of the research, please contact me at X so we can arrange a convenient time for the interview.

If you have any queries regarding the research project, that are not addressed in the participant information sheet, please email me at X

Thank you for considering this invitation.

Kind regards,

Geraldine Okiwelu

Research Student

School of Nursing and Midwifery,

Faculty of Health, Social Care and Education

Anglia Ruskin University

Cambridge Campus

**Appendix 6: consent form for interview**



**Participant Consent Form**

**Exploring the safe transition of patients from ICU to the ward in Nigeria: an exploration of the experiences of nurses.**

Name of participant:

Researcher: Geraldine Okiwelu

Supervisors: Dr Leslie Gelling

Dr Mansour Mansour

DELSUTH HREC Chairman: Dr Patrick Okonta

1. I have read the Participant Information Sheet (dated 01/05/2015, versions 1), and I understand what my role will be in this research. I have had an opportunity to ask questions, and these have been answered to my satisfaction.
2. I understand that I am free to withdraw from the research at any time, for any reason and without prejudice.
3. I understand that the interview will be recorded.
4. I understand what will happen to the data collected from me for this research.
5. I understand that quotes from me will be used in the dissemination of the research, and it will not be possible to identify me from these quotes.
6. I am free to ask any questions at any time before and during this research.
7. I have retained a copy of this form and the Participant Information Sheet.
8. Data Protection: I agree to the University1 processing personal data which I have supplied. I agree to the processing of such data for any purposes connected with the Research Project as outlined to me.
9. I agree to take part in this research.

1 “The University” includes Anglia Ruskin University and its partner colleges.

Name of participant (print) ………………………….

Sign ………………..………………….. Date…………………

Witness of Consent

Sign .............................................................. Date............................

*If you wish to withdraw from the research, please speak to the researcher or email them at* X *stating the title of the research. You do not have to give a reason for why you would like to withdraw. Please let the researcher know whether you are/are not happy for them to use any data from you collected to date in the write-up and dissemination of the research.*

**Appendix 7: Participants information sheet for interview**



**PARTICIPANT INFORMATION SHEET**

**INTERVIEWS**

**Exploring the safe transition of patients from ICU to the ward in Nigeria: an exploration of the experiences of nurses.**

You are being invited to participate in this research project about the transfer of patients from ICU to the ward at the University of Benin Teaching Hospital. Before you decide to participate in this research, it is important for you to understand what this research is about and what your participation would involve. Please read the following information. Please contact the researcher if you have any further questions.

***What is the purpose and value of this research?***

This research is seeking to explore the experiences and perceptions of nurses regarding the safe transfer of patients from ICU to wards in Nigeria. It is hoped that this research will help to identify strategies that might be implemented to improve patient transition from ICU to the ward.

***Why you have been invited to take part?***

As a registered nurse working in either ICU or on a general ward at the University of Benin Teaching Hospital, you may have been involved in the transfer of patients from ICU to the ward. You have been invited to participate in this research because I wish to explore your experiences, perceptions and knowledge during this period of transition from the ICU.

***Who is organising the research?***

The research is being organised and undertaken by myself, Geraldine Okiwelu, as part of my doctoral studies at Anglia Ruskin University. All documentation, notes and data will be seen and analysed by myself, with support from my academic supervisors (Dr Leslie Gelling and Dr Mansour Mansour).

***What will happen if you agree to take part in this research?***

Before deciding if you wish to participate in this research, you will be provided with this participant information sheet, and you will have an opportunity to discuss the project with the researcher. If you are willing to participate in this research, you will need to sign the informed consent form.

At a convenient time, you will then be interviewed in the hospital by the researcher, who will ask you questions about your experiences of being involved in the transfer of patients from ICU to the ward. If at any point in the interview, you do not wish to continue, please inform the researcher, and the interview will be ended. The interview will last approximately 30 minutes and will be audio recorded so that the researcher has an accurate record of what is said during the interview.

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

Results of this research will be presented in my doctoral thesis and submitted for publication in peer-reviewed journals and presentation at professional conferences. It will not be possible to identify anyone from any publications or presentations.

***Do I have to participate in this research?***

No. You do not have to take part in this research. Your decision to participate in this research is a voluntary one.

***Can I withdraw from the research after it has started?***

If you decide to participate in this research, you can withdraw at any time, even after you have signed the consent form. The data you provide during your interview can only be withdrawn from this research up to the point at which it has been analysed by the researcher.

***Are there any risks associated with this research?***

It is not anticipated that there will be any risks to you from participating in this research. In the unlikely event that you become upset or distressed during your interview, please let the researchers know, and the interview will be stopped.

***Will my legal right be affected by participating in this research?***

Your legal rights are not affected by participation in this research project. You are entitled to withdraw at any stage.

***What will happen to any information/data that are collected from you?***

Your interview will be transcribed and analysed by the researcher with support from supervisors. The recordings and transcripts will be stored securely until six months after the research project is complete and will then be destroyed. Your interview will be anonymised during transcription, which means that it will not be possible to identify you or anyone else from the transcript of your interview.

***Are there any benefits from participating in this research?***

You will not benefit from participating in this research, but it is hoped that this research will have an impact on the care provided for patients during the period of transition from ICU to the ward.

***How will your participation in this research be kept confidential?***

Because of the way that data is being collected for this research, it will not be possible to identify anyone who has participated in this research.

***Contact for further information***

If you have any further questions or concerns about this research, or your involvement in it, please do not hesitate to contact me by email at

If you have any concerns you wish to direct to the project Supervisors, please contact Dr Leslie Gelling or Dr Mansour Mansour

If you have any concern regarding the conduct of the research, you can either email or call Dr Okonta Patrick, chairman DELSUTH HREC;

**Thank you for taking the time to read this information and for considering taking part in this research.**

**Appendix 8: Initial Interview Questions**



**Initial Interview Guide**

**Ward Nurses Interview Questions**

**Introduction**

I would like to thank you for agreeing to participate in the interview phase of this study. I hope you have read the PIS, which contains detailed information regarding this study. In brief, this study is exploring the safe transition of patients from ICU to the ward-based on nurses’ experiences. Your views are vital, and your responses are confidential. The interview should last about 1 hour, but you can decide to stop this interview at any time. The interview is divided into three sections; background information, main questions, and concluding questions.

**Background information**

* How long have you been working in your current ward?
* Which other wards or units have you worked previously?
* What are your academic qualifications?
* What are the shift patterns you normally work?

**Main questions**

* Have you received a patient from the ward following discharge from the ICU?
* If yes or no, can you tell me based on your experience, what the process entails?
* Who is involved in transitioning patients from ICU to the ward?
* Is there any other person that should be involved in transitioning patients that often ignored?
* What do you consider before receiving patients from the ICU for ward-based care?
* What patient information do ICU nurses communicate to you before patient are transitioned to ward-based care?
* Is there other information that should be communicated but is often ignored/not considered?
* Do you have follow-up visits from ICU nurses following patients transfer to the ward?
* Are such visits compulsory, or are they done out of ICU nurses discretion?
* How often do they carry out such visits?
* Are such visits relevant/necessary/important?
* What challenges can you forecast when receiving post critically ill patients from the ICU?
* How do you cope with post critically ill patients care on the ward?
* Are you satisfied with the level of transitional care provided to patients following their transition to the ward?
* If no, what do you think can be done to improve the standard of transitional care provided to post critically ill patients?
* Generally, what can be done to maximise patient safety post period of critical illness?

**Concluding questions**

* Are there any other issues that you think can be helpful in contributing to this study based on your experiences?
* Do you have any other questions or concerns you want us to address?

**ICU Nurses Interview Questions**

I would like to thank you for agreeing to participate in the interview phase of this study. I hope you have read the PIS, which contains detailed information regarding this study. In brief, this study is exploring the safe transition of patients from ICU to the ward-based on nurses’ experiences. Your views are vital, and your responses are confidential. The interview should last about 1 hour, but you can decide to stop this interview at any time. The interview is divided into three sections; background information, main questions, and concluding questions.

**Background information**

* How long have you been working in the ICU?
* Which other wards or units have you worked previously?
* What are your academic qualifications?
* What are the shift patterns you normally work?

**Main questions**

* Have you been directly involved in transitioning patients from ICU to the ward.
* How long have you been involved in transitional care of patients from ICU to the ward?
* If yes or no, can you tell me based on your experience, what the process entails?
* Are there any criteria for transitioning patients from ICU to the ward?
* Who is involved in transitioning patients from ICU to the ward?
* Is there any other person that should be involved in transitioning patients that often ignored?
* What information is often communicated during transfer?
* Is there other information that should be communicated but is often ignored/not considered?
* What challenges can you forecast when transferring post critically ill patients from the ICU to the ward?
* Do you provide follow-up visits to ward nurses following patients transfer to the ward?
* Are such visits compulsory, or are they done out your discretion?
* How often do they carry out such visits?
* Are such visits relevant/necessary/important?
* Are you satisfied with the level of transitional care provided to patients following their transition to the ward?
* If no, what do you think can be done to improve the standard of transitional care provided to post critically ill patients?
* Generally, what can be done to maximise patient safety post period of critical illness?

**Concluding questions**

* Are there any other issues that you think can be helpful in contributing to this study based on your experiences?
* Do you have any other questions or concerns you want us to address?

**Appendix 9: Debrief letter (Interview)**



PARTICIPANT DEBRIEFING (Post interview)

Dear participant,

I would like to thank you for taking part in this research. The information you have provided will contribute to this research and to expanding our understanding of how we provide a safe patient transition when leaving ICU.

The outcome of the study will be available in the ward and units that were involved in the study six months after the end of the research. Meanwhile, if you have any queries regarding the research project, feel free to contact me at

Kind regards,

Geraldine Okiwelu

Research Student

Faculty of Health, Social Care and Education.

Anglia Ruskin University

East Road, Cambridge.

CB1 1PT,

UK.

**Appendix 10: Ethical approval letter (Anglia Ruskin University)**



1 June 2015

Dear Geraldine

**Re: Application for Ethical Approval**

**Principal Investigator:** Geraldine Okiwelu

**Project Number:** 14\_15 016

**Project Title:** Exploring the safe transition of patients from ICU to the ward in Nigeria: an exploration of the experiences of nurses

Thank you for your application for ethical approval which was considered by the Faculty (of Health, Social Care & Education) Research Ethics Panel (FREP) at its meeting on 20 May 2015.

I am pleased to inform you that your ethics application has been approved by the Faculty Research Ethics Panel (FREP) under the terms of Anglia Ruskin University’s Research Ethics Policy (Dated 23/6/14, Version 1).

Ethical approval is given for a period of 3 years from 1 June 2015.

**Please note:** Approval is subject to the following:

* If the focus groups are to be recorded, there should be a mention of this in the information sheets and consent forms. Please send finalised copies to FREP for our records.

It is your responsibility to ensure that you comply with Anglia Ruskin University’s Research Ethics Policy and the Code of Practice for Applying for Ethical Approval at Anglia Ruskin University, including the following:

* The procedure for submitting substantial amendments to the Panel, should there be any changes to your research. You cannot implement these amendments until you have received approval from FREP for them.
* The procedure for reporting adverse events and incidents.
* The Data Protection Act (1998) and any other legislation relevant to your research. You must also ensure that you are aware of any emerging legislation relating to your research and make any changes to your study (which you will need to obtain ethical approval for) to comply with this.
* Obtaining any further ethical approval required from the organisation or country (if not carrying out research in the UK) where you will be carrying the research out. Please ensure that you send the FREP copies of this documentation if required, prior to starting your research.
* Any laws of the country where you are carrying the research and obtaining any other approvals or permissions that are required.
* Any professional codes of conduct relating to research or requirements from your funding body (please note that for externally funded research, a Project Risk Assessment must have been carried out prior to starting the research).
* Completing a Risk Assessment (Health and Safety) if required and updating this annually or if any aspects of your study change which affect this.
* Notifying the FREP Secretary when your study has ended.

Please also note that your research may be subject to random monitoring.

Should you have any queries, please do not hesitate to contact me. May I wish you the best of luck with your research.

Yours sincerely

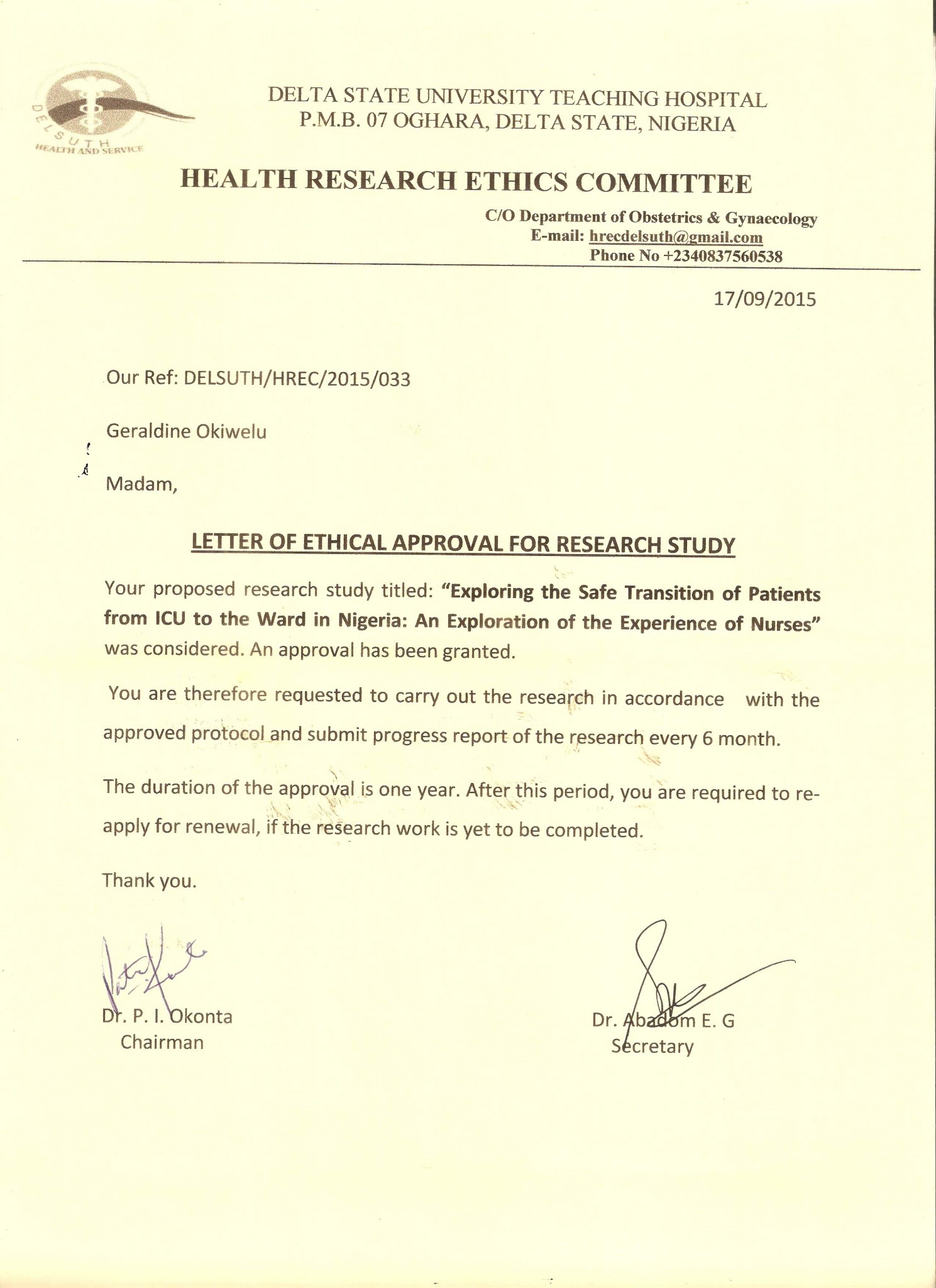
Dr Sarah Burch

For the Faculty (of Health, Social Care & Education) Research Ethics Panel

Cc: Dr Stewart Piper (FREP Sponsor)

Dr Leslie Gelling (Supervisor)

Baverley Pascoe (RESC Secretary)

**Appendix 11: Ethical approval letter (Nigeria)**

**Appendix 12: Ethical approval letter 2 (Nigeria)**

