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**The effect of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A mixed-method study**

Yan Ing (Jenni) Ng

*The University of Notre Dame Australia*

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**The Effect of Continuing Professional Development from  
the Perspective of Nurses and Midwives Who Participated  
in Continuing Education Programs Offered by Global  
Health Alliance Western Australia: A Mixed-method Study**

A thesis submitted in fulfilment of the requirements for the degree of  
Master of Philosophy

**Yan Ing (Jenni) Ng**

School of Nursing and Midwifery  
University of Notre Dame, Australia

2017

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## Operational Definition of Terms

ANMC	Australian Nursing and Midwifery Council
CE	Continuing Education
CNMO	Chief Nursing and Midwifery Officer
COSTECH	Tanzanian Commission for Science and Technology
CPD	Continuing Professional Development
CPR	Cardiopulmonary Resuscitation
ERC	Ethical Review Committee
GHAWA	Global Health Alliance Western Australia
HKMU	Hubert Kairuki Memorial University
HREC	Human Research Ethics Committee
MDG	Millennium Development Goal
MoHSW	Ministry of Health and Social Welfare
MUHAS	Muhimbili University of Health and Allied Sciences
NMs	Nurses and Midwives
NMBA	Nurses and Midwives Board of Australia
OHW	Other Health Worker
RM	Registered Midwife
RN	Registered Nurse
RNM	Registered Nurse Midwife
TNMs	Tanzanian Nurses and Midwives
TNMC	Tanzania Nursing and Midwifery Council
UNDA	University of Notre Dame Australia
WA	Western Australia
WAHNMAC	Western Australian Health Nursing and Midwifery Advisory Council
WANMs	Western Australian Nurses and Midwives
WHO	World Health Organization

## **Abstract**

Continuing professional development (CPD) opportunities for nurses and midwives are central to improving knowledge, broadening skills and maintaining competencies to provide best practice and clinical care. This is gained through participating in continuing education (CE). CPD is readily accessible and a mandatory requirement for nurses and midwives in developed nations, such as Australia. However, in developing countries, such as Tanzania, while CPD is promoted, it has limited availability. As such, the Global Health Alliance Western Australia (GHAWA), an international health development program, seeks to provide further sustainable CPD opportunities for nurses and midwives in Tanzania.

The purpose of this research is to evaluate the CE programs provided by GHAWA. The review explores perceptions of the effectiveness of CPD from previous nursing and midwifery participants' of the GHAWA program, and describes the factors contributing to the sustainability of CPD in Tanzania by identifying whether the sharing of knowledge among the Tanzanian nurses and midwives occurred beyond attending GHAWA's programs. This evaluative study employed quantitative and qualitative designs through a mixed-method approach. Data were collected in two phases. Phase one involved a review of the number of education opportunities and programs provided in 2013 by GHAWA in Dar es Salaam, Tanzania. Phase two was undertaken in two stages, through focus group and one-on-one interviews with two cohorts: the Western Australian nurses and midwives who served as educators delivering GHAWA programs in Tanzania (stage one), and the Tanzanian nurses and midwives who were attendees (stage two).

This evaluative strategy clarified the experience and effect of CE, and identified common themes about CPD for Tanzanian nurses and midwives. Barriers such as environmental and educational concerns, revealed that reflective practice as a process of continuous learning, enabled nurses and midwives to create positive changes in the workplace. The significant outcome was a perceived reduced mortality across maternal and neonatal care. Findings from this study provided a deeper insight into the possibility of sustaining CPD for nurses and midwives in developing countries. Recommendations are offered which may assist to strengthen the opportunities for

CPD for nursing and midwifery workforce in developing countries that could ultimately influence quality care and patient outcomes.

## **Declaration of Authorship**

This thesis is the candidate's own work and contains no material which has been accepted for the award of any degree or diploma in any other institution.

To the best of the candidate's knowledge, the thesis contains no materials previously published or written by another person, except where due reference is made in the text of the thesis.

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Yan Ing (Jenni) Ng

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September 2017

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## Personal Reflection

Seven years ago, I visited Tanzania for the first time to work on a project with a small group of senior nursing and midwifery academics and clinicians. During my first day at a hospital visit, I remember walking into a labour ward. It had no dividing screens for the 12 to 15 mothers who were in labour that morning. Some were screaming in pain and clearly distressed, lying on the floor among small puddles of bodily fluids. It was obvious that there were not enough beds for everyone. Walking through the nursery, there were no cots just adult beds with two to four babies lying on each bed. Sitting and lying underneath on colourful Kitenge fabrics (traditional sarongs) were their mothers on the floor. My mind filled with questions about infection prevention and control, clinical practice, equipment, medical help and so forth. I remember thinking, 'where are the staff?'. There were no more than three people working between patients in the room. This is merely a snapshot through the vivid window of my memory. There were many other concerns that I witnessed at a number of healthcare facilities in both urban and rural areas, some of which were heart-wrenching encounters. Basic needs, such as sanitisation, power and access to clean water, were limited or unavailable to many, not just in homes, but also in some facilities. It became clear to me that the challenges to improve health for the vulnerable could not be underestimated. Little did I realise then that this was the start of a journey that would change me.

I was fortunate to later take on a position to lead and manage an International Health Development program that provided continuing professional development (CPD) opportunities for nurses and midwives in Tanzania. Whilst it was both rewarding and challenging, I also found myself constantly having to justify the program and compete for the limited funding. Notwithstanding my passion for the program, my involvement presented a challenge with respect to maintaining impartiality in the investigatory process (I discuss this below), I recognised early on that research could provide evidence for the implementation, and importantly understand and give, the views of those who partook in this global health opportunity, a voice. This was what prompted me to undertake this study.

In my view, CPD is a gift that keeps giving. As the saying goes, ‘Give a man a fish, you feed him for a day. Teach a man to fish, you feed him for a lifetime’. While this rings true; what do we know about the challenges, enablers and outcomes in Tanzania?

# Chapter 1: Introduction

## 1.1 Introduction

The availability of drugs, equipment and human resources to support health infrastructure is a core component of health system inputs and a basic consideration of health service demands (Manzi et al., 2012). The 2008 World Health Organization (WHO) Executive Board Report about strengthening nursing and midwifery supported this view, stating that, ‘the functions of any health systems depend on the effectiveness of its components and a major aspect of the health system is the health workforce’ (WHO, 2008, p. 1). Workers are fundamental to the provision of health services, and nurses and midwives are the skilled health professionals most needed in hospitals (WHO, 2017). The provision of effective nursing and midwifery care can be gained from continuing professional development (CPD) and education to enable and ensure a continuum of quality care and best practice (Plager & Razaonandrianina, 2009). According to the WHO (2012), CPD serves as a vital contributor to achieving the ambitious United Nations’ Millennium Development Goals (MDGs) to improve health in developing countries.

Opportunities for CPD are readily accessible by nurses and midwives (NMs) in most developed nations; however, this is not always the case in developing countries, such as Tanzania, where resources are scant (Kwesigabo et al., 2012; Leshabari, Muhondwa, Mwangu, & Mbembati, 2008). An international aid program from the Western Australian (WA) Health Department is called the Global Health Alliance Western Australia (GHAWA), and its mission aligns with the WHO objective of strengthening the nursing and midwifery workforce and the MDG for improving maternal and child health. This program assists the capacity and capability building of the health workforce in Tanzania by providing a range of continuing education (CE) opportunities for the professional development of NMs in particular, to improve their health practices and care outcomes.

The aim of this study was to investigate NMs’ perceptions of CPD and to evaluate the effectiveness of the program delivered by GHAWA in Tanzania. The study applied a mixed-method research approach involving two phases, commencing with a quantitative review of the program, followed by focus group interviews with relevant NMs to gain



insights into CPD in Tanzania. To introduce this study, the following section provides background information that leads to a discussion of the significance of the research topic.

## **1.2 Background**

CE assists NMs to stay current in their practice within an evolving healthcare system (Garafalo, 2012). After completing basic training and gaining an initial qualification to commence work, NMs are encouraged to engage in a lifelong learning process for professional growth. This is achieved through CE to enhance professional development, and through keeping abreast of contemporary practice and current competencies (Dickerson, 2010). NMs often seek CE opportunities in their workplace, as these opportunities are mostly free and convenient to attend (Garafalo, 2016).

According to the African Health Professions Regulatory Collaborative for Nurses and Midwives (2012), a partnership for excellence of Africa's health workforce, as well as the critical shortage of nursing and midwifery staff, a lack of capacity to scale up the education of NMs exists in Eastern, Central and Southern Africa, including knowledge gaps among some facilitators of CPD. Previous studies from developing countries have examined the quality of CPD and linked CE programs directly to healthcare workers' specific learning application and practice outcomes (Brigley, Hoseln, & Myemba, 2009; Kemp & Tindiweegi, 2001; Manning & DeBakey, 2001; Muliira, Etyang, Muliira, & Kizza, 2012; Walters & Furyk, 2010). However, there is a dearth of published studies about the perceived change in knowledge among such health professionals, or their willingness and ability to share their knowledge gained through CPD after attending CE in developing countries. In addition, little research has been undertaken on the continuation and sustainability of CPD in developing countries, specifically where CE was delivered by local NMs after the completion or departure of the initial provider of CE by foreign aid organisations.

GHAWA, a program of the Health Department of WA, collaborated with the Tanzania Ministry of Health and Social Welfare (MoHSW) to assist with the development of a sustainable health system by providing CPD for NMs to build their capacity and capability in Tanzania. To fulfil this goal, in 2011, GHAWA commenced the provision of CPD in the country. The professional development education of GHAWA was delivered by NMs from WA to their international counterparts in Tanzania. An

anticipated outcome of providing CE to NMs was that the attendees would in turn promote and teach other colleagues, thereby bringing gradual improvement to the broader health of the population (Kemp & Tindiweegi, 2001). To provide context for this study, the below section briefly describes the health system of Tanzania, within which the GHAWA program was delivered.

### **1.2.1 GHAWA Partnership with Health Organisations in Tanzania**

Discussions to provide assistance for health practitioners in Tanzania were begun by the former Australian and Tanzanian Ministers for Foreign Affairs. Through this cooperation and backing from the Australian Federal Government, a strategic partnership began in December 2009, whereby the WA Department of Health later established an international health development program, named GHAWA, to build the capacity of health professionals. Endorsed by a former Health Minister of WA, this program was established to provide CPD education for NMs at various primary and community healthcare organisations in the coastal region of Dar es Salaam, Tanzania, located in South East Africa (Government of WA, 2017).

The structure of the Tanzanian health care system is categorised under several levels of service found in urban and rural areas, including dispensary, health centre, district, regional and referral hospitals (Kwesigabo et al., 2012). The majority of these healthcare services come under the national administration of the MoHSW, while some are operated by private and faith-based organisations. GHAWA worked with several health organisations across all the service levels mentioned above, including education institutions that trained NMs in Dar es Salaam. This outreach enabled NMs in the relevant organisations to access CPD.

The significance and effect of CPD lies in enhancing the ability of NMs, and a desirable goal of many foreign aid programs is to assess the sustainability of CPD programs. However, there are seldom opportunities to examine this because of finite funds and timeframes (Ahluwalia, Robinson, Vallely, Giesecker, & Kabakama, 2010). Considering the lack of published findings regarding the sustainability of CPD in developing countries, it was apparent that conducting research in this area could be a useful contribution. Thus, the topic of this study is covered in the following section.

### **1.3 Topic and Purpose**

It is well recognised that CPD and education are connected closely to a process of lifelong learning (Dickerson, 2010; MoHSW, 2014; Ryan, 2003). In today's world of evolving healthcare and practice, where patient safety is paramount, one of the key contributors of providing safe patient care is competent NMs (Dickerson, 2010). As a result, opportunities in professional development enabled NMs to grow and helped them understand different perspectives that affected their practice (Dickerson, 2010). The purpose of this study was to explore the perceptions of NMs regarding the effectiveness of the CPD and CE provided by GHAWA in Tanzania. Of particular interest was whether knowledge gained from initial participation in CE continued to be shared among peers once the education program ended. The next section presents rationales for why this study is significant, as well as its potential contribution to the existing literature.

### **1.4 Significance of Study**

Statistics are often primarily highlighted in healthcare and hospital reports. This is typically because the outcomes and performances of healthcare for a country or organisation are measured by factors such as the size of an established system, infection rates, number of medical incidents and mortality rates. Equally significant is the question of how and what helps to reduce such events. However, these are understated, and the need to provide evidence for how CPD and education contribute to dealing with the factors mentioned above.

The WHO (2012) asserted that, after economic concerns, health is rated as one of the highest priorities. In a bid to address health improvements, the United Nations (2000) Millennium Declaration sought to combat diseases and reduce maternal and child morbidity and mortality in developing countries. The WHO (2012) affirmed that one of the ways to improve and sustain health is through education of health professionals and the community at large.

As one of the poorest and least urbanised countries in Sub-Saharan Africa (Lofmark & Thorell-Ekstrand, 2009), Tanzania is facing a shortage of human resources for health (Kurowski, Wyss, Abdulla, & Mills, 2007; Manzi et al., 2012). According to Kurowski et al. (2007), 'the scaling-up of priority interventions to achieve improvements similar to

the Millennium Development Goals will require human resources ... and reducing future shortages will require policy action that improves staff and service productivity' (p. 114). Moreover, it is evident that the Government of Tanzania is committed to improving human resources for health, undertaken through positive partnership arrangements with foreign aid organisations and programs (Gross, Pfeiffer, & Obrist, 2012; Kurowski et al., 2007; Manzi et al., 2012; Nartker et al., 2010).

Education does not stop after finishing school or achieving a specific professional discipline, such as nursing. While CE may be readily available and accessible in developed nations, this is not necessarily the case in Tanzania (Keyes, Lane, O'Nions, & Stanley, 2011). A qualitative study conducted by Mathauer and Imhoff (2006) in Kenya asserted that CE promotes motivation among health workers. The study confirmed its hypothesis that non-financial incentives played an important role in increasing health professionals' motivation—one that strengthened professional efficacy. Ongoing supervision, training and follow-up were required, which also necessitated a realistic human management resource plan. It was acknowledged that high staff turnover may have affected the sustainability of staff training. While the study assessed the non-financial incentives for motivation of health professionals in rural districts in Kenya, it did not examine the sustainable effect of their motivation in the workplace.

Nartker et al. (2010) also highlighted that CE undertaken through distance learning increases health workers' capacity to competently perform their work in Tanzania. As a result, CPD opportunities have a direct effect on the capacity and capabilities of the NMs themselves, while also further enhancing service delivery through the NMs' provision of care to patients and communities at large. However, Nartker et al. did not compare the clinical performance of the health workers who completed the distance learning program with those who completed local residential and traditional CE learning programs in Tanzania. Considering these gaps, the current study sought to identify the effectiveness and sustainability of CPD from the perspective of NMs who participated in locally delivered CE programs offered by GHAWA in Tanzania.

Health education and the upskilling of nurses has been trialled in Africa to assist with the needs of the poor public healthcare system; however, the sustainability of implementation is questionable (Brigley et al., 2009; Nartker et al., 2010). Ahluwalia et al. (2010) observed that lack of funds and project timeframes have resulted in few opportunities to

examine the sustainability of CPD following the departure of foreign aid providers. Subsequently, it was imperative that the CE program implemented by GHAWA provided the opportunity for the continuation of CPD in Tanzania. The program had committed to supporting NMs in Tanzania to build their capability and extend their professional growth, so they could deliver education sessions themselves.

To establish an understanding of the subject matter, this study aimed to explore the perceived effectiveness and sustainability of the CPD and CE programs provided by GHAWA to NMs in Tanzania, and to examine whether the sharing of knowledge among peers continued beyond the initial participation of CE. Based on this aim, objectives were developed to guide the study as described in the following section.

## **1.5 Research Objectives**

The objectives of this research were to:

- determine the number and variety of CE sessions presented by GHAWA to NMs in Tanzania, including learning sessions that encompassed ‘train the trainer’ concepts
- examine the effectiveness of CE and the sustainability of CPD delivery in Tanzania from the perspective of Western Australian and Tanzanian NMs involved with GHAWA
- identify from the Western Australian and Tanzanian NMs perceptive any barriers and enablers for Tanzanian NMs to provide CPD opportunities to their colleagues.

## **1.6 Summary**

This introductory chapter has provided background information about the topic, indicating the research purpose, significance and objectives. This thesis is presented in six chapters. Following this, the remaining chapters are organised as follows:

- Chapter 2 provides a review of the literature related to nursing in Tanzania and CPD. It also describes the process of how knowledge and skills development are gained, including what constitutes sustainable opportunities for CPD in an African context.

- Chapter 3, as part of the mixed-method study, discusses both the quantitative and qualitative approaches, and details the methodology.
- Chapters 4 and 5 present the comprehensive findings of the research, including a comparison of the results from both cohorts. They also compare the study findings with the literature, and explore the limitations of the study.
- Chapter 6 concludes with recommendations that consider the significance of the findings to guide future directions for the nursing and midwifery workforce in Tanzania, similar aid programs offering CPD in developing countries, and potential research strategies.

## **Chapter 2: Literature Review**

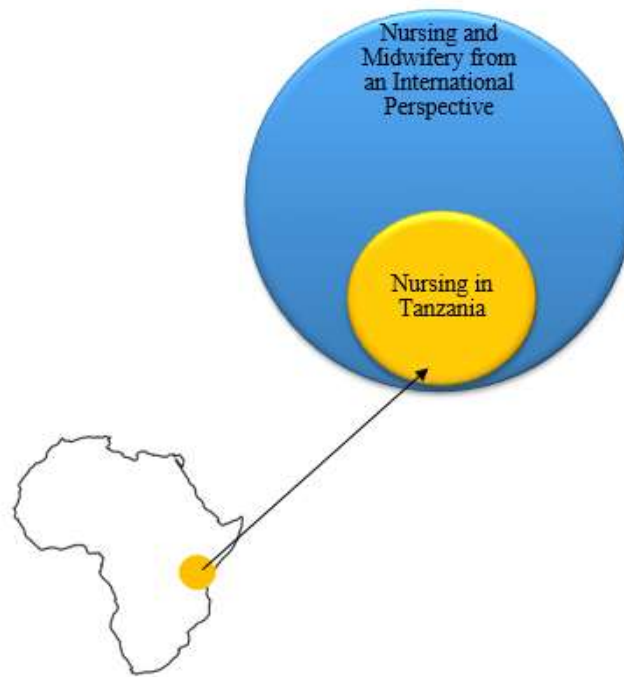
### **2.1 Introduction**

The previous chapter was related to background information about CE and CPD provided in Tanzania by WANMs and received by TNMs. The literature about CE and CPD in nursing, shows that education can make a significant difference in professional practice and patient care. Central to this is a lifelong commitment to education, whereby NMs need to build their knowledge foundation by engaging in ongoing education throughout their careers (Garafalo, 2016). Such education programs are generally provided through the workplace to ensure convenience for the health staff, and no fee is charged for participating in the programs. The focus of education and training for NMs is essentially to ensure a well-educated workforce to support the growing healthcare system (Dickerson, 2010; Garafalo, 2012, 2016).

Dickerson (2010) pointed out that it is easy to lose sight of the bigger picture of CE that enhances professional development, when NMs and other health staff are caught up in the busy daily operations of a hospital. This is true in all contexts of health, whether in an advanced healthcare system or unit in the developed world or in under-resourced wards in less privileged nations. However, the literature addresses the significance and influence of CE, which benefits health service providers, staff and patient care outcomes. According to Bamberger, Rao, and Woolcock (2010), there is heightened criticism that suggests that foreign aid organisations report mainly outputs (quantity), rather than outcomes (quality). Considering the financial, physical and human resource input of foreign aid and international development projects into developing countries, the need to measure the effectiveness of such projects is important.

Given that the current study focused on the effectiveness and sustainability of CPD for NMs who participated in education programs provided by GHAWA in Tanzania, this chapter reviews the current frames of reference regarding continuing NM education in a mainstream and international development context, including how learning is sustained in that context. This chapter begins by describing nursing from a global standpoint, and further describes nursing in developing countries, focusing on Tanzania as an example. The notion of CE and CPD in Tanzania is discussed, including the sustainable work of

CPD that is guiding the future of healthcare. Figures 1 and 2 depict visual representations of the concepts covered in this chapter. Figure 1 represents nursing and midwifery from an international perspective and how nursing in Tanzania fits within a global context. Figure 2 discusses the CPD and education process model and will be explained in Section 2.3.



**Figure 1: Nursing and Midwifery – An International Perspective**

## **2.2 Nursing and Midwifery – An International Perspective**

According to the *Global Strategic Directions for Strengthening Nursing and Midwifery 2016–2020* document published by the WHO (2016), there is a current estimate of 43.5 million health workers worldwide, of which 20.7 million are NMs. In many countries, more than 50% of health workers consist of NMs. These numbers may seem large, suggesting a reasonable ratio of nursing and midwifery personnel to the population; however, the challenge of shortages exists globally. The WHO (2017) reported that there are fewer than three NMs per 1,000 population in 48% of its member states (countries), and 27% reported to have less than one. For instance, India has two per 1,000 population, China has 1.6, Zambia has 0.7, Pakistan has 0.6, Afghanistan has 0.4, Malawi has 0.3, and Somalia has 0.1 (WHO, 2017). In comparison, Australia has 12.3 nursing and



midwifery personnel per 1,000 population (WHO, 2017). Nawafleh (2014) purported that, in Jordan, where the nursing density is 2.8 per 1,000 population, inadequate numbers of nurses and midwifery personnel have caused the standards of nursing care to deteriorate.

An estimated decline of 7.6 million NMs by 2030 has been predicted, with worse numbers in the African and Eastern Mediterranean Regions, if the current trend continues (WHO, 2016). Considering the increase in disease burden, population growth and aged care, complex health issues will inevitably follow. In addition, of the 38 million deaths each year that are related to non-communicable diseases, an estimated 74% of these deaths occur in low- and middle-income countries (WHO, 2016). Health workers, including NMs, play a significant role in promoting health and delivering essential care. They are also a central part of supporting health service delivery, and providing care throughout the life span, from birth to assisting older people in primary and community settings.

To keep pace with the progressive world of emerging disease outbreaks and contemporary technology, NMs must stay abreast of new knowledge, and be educated and competent to provide the effective care that the population needs. To achieve such goals, the focus is on CE (Australian Nursing and Midwifery Council [ANMC], 2009; Dickerson, 2010; Garafalo, 2012; MoHSW, 2014; WHO, 2016). Optimising the capabilities of the workforce and working with regulatory bodies, education and practice institutions can create sustainable inroads and developments. This is described further in Sections 2.3 and 2.4.

From this global account, nursing and midwifery in developed and developing nations share similar challenges and concerns. The differences are generally related to a matter of scale, based on health economics, equitable access and the social determinants of health. The area of nursing in developing countries is very broad; thus, for this study, and to provide context to readers, this literature review considers Tanzania as an example of nursing in developing countries, as described in the following section.

### **2.2.1 Nursing in Tanzania**

It should first be acknowledged that the terms ‘nurses’ and ‘midwives’ are used interchangeably in Tanzania. The researcher’s work experience in this country revealed that midwives are often referred to as nurses. Thus, the literature identified in this section

includes midwives under the nursing umbrella. While this would be unacceptable in Australia, it is commonplace in Tanzania and other African countries.

Moyo and Mhamela (2011) described that prior to the nineteenth century, nursing care in Tanzania was learnt by apprenticeship and hands-on care in tribe and home settings. The missionaries arrived in the late 1800s and were particularly active in caring for the sick. As these religious societies spread to the country, Catholic nuns for example became common health care practitioners who went on to establish hospitals and nursing schools. It was not until the 1970s, when nursing specialty programs in areas such as paediatrics, psychiatric and operating theatre nursing were established (Moyo and Mhamela, 2011). In the 1990's, Tanzanian nurses were able to obtain nursing qualifications at Degree and Master's level for the first time. This prepared nurses with enhanced knowledge and skills to provide care for their unique population health needs, including diseases such as HIV/AIDS, malaria, tuberculosis, diarrhoea diseases, malnutrition and maternal/perinatal conditions (Mella, 2003; Kwesigabo et al., 2012).

Tanzania has a ratio of 0.4 nurses per 1,000 population (Kaaya et al., 2012; Manzi et al., 2012; WHO, 2017). While the population size of Tanzania consistently expands, at 2.7% in 2015 (Tanzania National Bureau of Statistics, 2016), the country continues to face a severe shortage of skilled workers in the health sector (Khamis & Njau, 2014; Kurowski et al., 2007; Kwesigabo et al., 2012; Manzi et al., 2012; Nartker et al., 2010; Shemdoe et al., 2016; Songstad, Rekdal, Massay, & Blystad, 2011; Tanzania MoHSW, 2007, 2014). A health workforce human resources review in Tanzania conducted by Kurowski et al. (2007) estimated that an increased ratio of 1.2 nurses per 1,000 population—as the minimum staffing level—was required by 2015, with the assumption of increase training efforts and capacities. A workforce crisis was declared by Tanzania's MoHSW (2007) in 2008, with plans to increase the number of students enrolling in healthcare disciplines at training institutions, increase the recruitment of health workers, and increase health financing for human resources (MoHSW, 2014). To date, according to statistics available from the WHO (2016), the ratio remains at 0.4 nursing and midwifery personnel per 1,000 population.

Compared with the global average of more than 10 NMs per 1,000 population in developed countries such as Australia, the United States, Sweden and Ireland (Buchan & Aiken, 2008; Health Workforce Australia, 2013; WHO, 2016), there is a critical need to

increase the number of skilled health workers in Tanzania (Kaaya et al., 2012; Kwesigabo et al., 2012; Manzi et al., 2012; Nartker et al., 2010; Songstad et al., 2011). Tanzania relies on a range of health workers to staff health services, and, according to Kwesigabo et al. (2012), only a small proportion of the people who provide clinical care are professionals trained as doctors, nurses, pharmacists and dentists. The 2014 to 2019 MoHSW strategic plan indicated the efforts to increase the human resources for health in Tanzania and upgrade workers' skills through CPD for the health workforce.

The dire shortage of NMs in Tanzania has resulted in understaffing and work overload. The study by Haggstrom, Mbusa, and Wadensten (2008) highlighted that, as a result of these factors, coupled with the challenges faced by NMs on a daily basis (such as limited medical resources), Tanzanian nurses suffer from workplace distress and ethical dilemmas. In addition, Leshabari et al. (2008) explained that health workers are often confronted with the limited availability of protective gear, safety equipment and (in some cases) access to clean water to safeguard them from infectious disease. These factors cause major workplace issues that have a detrimental effect on staff (Leshabari et al., 2008; Shemdoe et al., 2016).

Despite the difficulties faced by these NMs, Nartker et al. (2010) identified that healthcare workers in Tanzania were keen to learn and 'wanted more training for themselves in order to perform their jobs competently' (p. 2). However, Kaaya et al. (2012) described that, once health professionals in Tanzania are given their licence to practice, there are no requirements for individuals to update or improve their skills or knowledge. Consequently, the notion of CE and access to CPD are limited. This subject is covered further in the following section.

### **2.3 CE and Professional Development**

The focus of CE is to enhance the professional development of NMs (ANMC, 2009; Dickerson, 2010; Nurses and Midwives Board of Australia [NMBA], 2010). CE essentially comprises short training programs that facilitate training and expertise. It is sometimes referred to as in-service or professional development training provided for individual practitioners. The literature purports that CE assists with updating knowledge and improving individual skills, which subsequently improves standards and enhances healthcare delivery (Aiga & Kuroiwa, 2006; Nartker et al., 2010).

In an era of constant change in healthcare, including scientific and technological advances, it is critical to build on the foundation of NMs' professional development through lifelong learning engagement in CE, consisting of both formal and informal learning (Garafalo, 2016). CPD is attained by means of continually maintaining, improving and broadening one's knowledge, expertise and professional competence (NMBA, 2010). It is an ongoing process, and developments are contingent on each individual's area of interest (Dickerson, 2010; Garafalo, 2012).

Garafalo (2012) explained that CPD requires a partnership between the learner and teacher, and, to be effective, it is important to identify individuals' knowledge gaps and learning needs. Garafalo used formative and summative evaluation processes to identify learning needs, comments and feedback including topic suggestions from those who participated in the study, for planning future CE programs. Garafalo found that CE enabled the understanding of best practice, thereby resulting in nurses' improved performance to give quality care for patients. This subsequently facilitated advancement of the profession. Manzi et al. (2012) purported that, from an organisational perspective, the systematic approach of CPD as a whole enables the workforce to become an effective and efficient component of the healthcare system.

As part of this interactive process of CPD and CE, knowledge and skills development are gained through support and ongoing commitment (Garafalo, 2012). In view of the description above, Aiga and Kuroiwa (2006) and Manzi et al. (2012) further highlighted that the continual process of CE promotes ongoing professional development. This process model is simplified and illustrated in Figure 2.



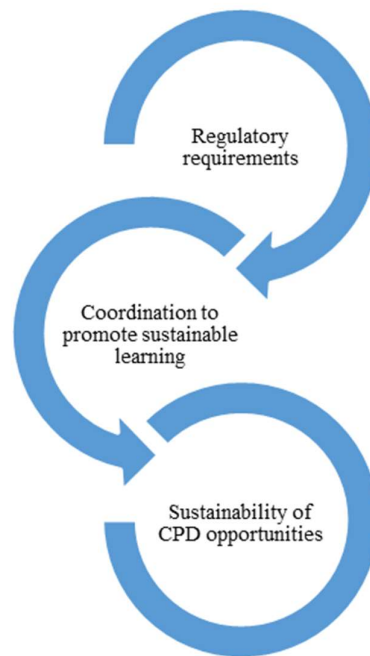
**Figure 2: CPD and Education Process Model**

In addition, Aiga and Kuroiwa's (2006) study in Ghana revealed that the information learnt from the CE opportunities delivered in the country was shared and disseminated to other staff in duty stations within hospitals. However, this was confined to a select group of people, as Aiga and Kuroiwa (2006) also found that some health workers were reluctant to share the education, as they identified it 'exclusively as their privileged knowledge and skills' (p. 277). Despite this, Aiga and Kuroiwa recommended that equal access and opportunities to CPD and CE would enhance the knowledge and skills of health workers, thereby improving quality of care and reducing costs. The aim of this study was not to consider perceptions about participation in CE by the healthcare workers in Ghana.

In the context of access to education within the workplace and the broader developments of CPD, CE is linked to the efforts of 'train the trainer'. Nyamathi et al. (2008) found in their study that a nurse-led train the trainer education program regarding HIV, improved the knowledge of nurses in India. As an educational intervention, 10 master trainers trained 100 trainees over a short period. A pre and post-test demonstrated overall improvements in knowledge of HIV amongst the cohort. The 'train the trainer' strategy was effective in providing knowledge transfer and equipping the nursing workforce to prevent HIV transmission particularly in areas responding to the crisis.

‘Train the trainer’ was also used in another study by Kalisch, Xie and Ronis (2013), where three nurses in the acute care setting at three hospitals underwent a training program and later taught nursing staff in their respective unit about teamwork and missed nursing care. Testing the efficacy of the intervention, the study found a higher level of nurses’ satisfaction with teamwork that resulted in a significant decrease in missed care events. The studies by Nyamathi et al. (2008) and Kalisch, Xie and Ronis (2013), both highlighted the positive impact of CE on patient safety and ultimately quality care.

To provide an orderly understanding of CE and CD from a Tanzania context, Figure 3 illustrates the factors that support and sustain nursing CPD in Tanzania.



**Figure 3: Factors that Support and Sustain Nursing CPD in Tanzania**

### **2.3.1 Regulatory Requirements**

As stated in Section 2.2.1, there is no history of CPD being a mandatory requirement to maintain professional registration in Tanzania (Kaaya et al., 2012). Although in 2014, the Tanzania Nursing and Midwifery Council (TNMC) endorsed national CPD guidelines for NMs in Tanzania, the extent to which these are viewed as mandatory is questionable. This document, supported by the MoHSW and the country’s National Nurses Association, defined CPD as a range of purposeful education that serves to improve performance after individuals’ initial basic training (TNMC, 2014). It was further identified by the TNMC

(2014) that, under the *2010 Tanzania Nursing and Midwifery Act*, CPD was mandatory and NMs were required to provide evidence of CPD attendance when renewing their professional practising license. However, there is limited information and understanding about the awareness of and compliance with this ruling by local NMs in the country. According to Tanzania's MoHSW (2014), it was noted that, while some health workers have attended CPD training, it is not uncommon to find staff who have not attended CPD. The literature argues that, to support existing nursing and midwifery staff, access to CE to update knowledge and skills that align with contemporary best practice is vital for providing quality care and health service delivery (Aiga & Kuroiwa, 2006; Nartker et al., 2010). This opinion was acknowledged by the Tanzania MoHSW (2014). The process for coordinating CPD is described in the following section.

### **2.3.2 Coordination to Promote Sustainable Learning**

An evaluative study in Uganda by Kemp and Tindiweegi (2001) demonstrated that, consequent to receiving CPD, nurses working in a regional hospital will educate others, who then go on to teach other people, thereby expanding the influence of the initial education. The project, supported by two United Kingdom-based organisations, aimed to describe the creation of professional development programs for nurses at a regional teaching university hospital in Mbarara, Uganda. Kemp and Tindiweegi (2001) described that it took two years to establish the foundation of planning for NMs' staff development in the hospital. As a result of the abolishment of an onsite nursing school, as well as nurses' lack of development because they had no access to CE and professional development, it was critical to develop a strategic approach to build nurses' skills. A wide range of nursing and midwifery education topics was delivered to staff in the hospital. Based on the merits of individuals, selected NMs were then identified and given training in specialist skills, such as paediatrics, accident and emergency work, peri-operative and sexual health care. They were required to complete specific education modules. The results of the evaluation indicated that the morale of the participating nurses increased as a result of completing all modules, and there were signs of improvements in patient care within the hospital. Subsequently, priorities were established to collaborate and continue the development of nurses in the clinical setting. The coordination of this sustainable education model could lead to gradual improvement in the wider health population (Kemp

& Tindiweegi, 2001). This CPD philosophy resonates with GHAWA as it strives to deliver CE that is sustainable for NMs in Tanzania.

In an effort to address the acute shortage of health professionals in Tanzania, Kaaya et al. (2012) initiated an enquiry to reform health professionals education in Tanzania to increase the intake of students at universities. While the authors professed that the study is still ongoing and will take over a decade to complete, preliminary information shows that there were inadequacies in the training of health professionals, and that Tanzania ‘lacks a formal system for coordinating CPD’ (Kaaya et al., 2012, p. 3). Consequently, there are no requirements by professional authorities to update skills and knowledge after gaining the initial licence to practice. The lack of CE, compounded by the shortage of nurses, negatively affects professional standards and eventually health outcomes (Kaaya et al., 2012). The early stages of this study have highlighted that actions to enhance the educational environment to promote sustainable learning, alongside the development of strategic partnerships to scale-up health professional education, are paramount.

### **2.3.3 Sustainability of CPD Opportunities**

Sustainability is viewed as the act of being able to progress and maintain the current and future generation’s needs (WHO, 2008). According to Ahluwalia et al. (2010), it is the ‘process or outcome of an activity or set of activities post-project implementation’ (p. 41). The key goal of the GHAWA collaboration in Tanzania was to ‘not only provide education with the intent to improve patient care, but also to support the sustainability of any knowledge gained to ensure improvement’ (Jones, Carville, Michael, & Gower, 2012, p. 5). The program intervention of GHAWA in Tanzania was to provide CE that was relevant to the context, needs, working conditions and available resources of Tanzanian healthcare settings. Thus, aspects of a ‘train the trainer’ approach—which gives trainers the knowledge and skills to interact and provide education and training effectively—were built into the training and delivery process when providing CE in Tanzania (Jones et al., 2012).

An evaluation study conducted in Malawi by Walters and Furyk (2010) supported the view of providing a ‘train the trainer’ approach in education, as it enables and ensures that the role of the nurse in CE is sustained while nurses continue to support other staff towards practice improvement. In partnership with a United Kingdom-based children’s



hospital, 51 Malawian paediatric nurses were provided nursing education in best-practice injection techniques, and given structured education packages (Walters & Furyk, 2010). Many of these nurses had not received professional development in this area for more than 20 years, and were routinely giving injections to children in the dorsogluteal muscle. The study was evaluated through questionnaires that assessed the nurses' knowledge of intramuscular injections for paediatrics at a tertiary referral hospital in Blantyre, Malawi. Following the delivery of education, observations of the nurses' practice (specifically their injection sites and techniques) were also conducted as part of the study, and 84% of intramuscular injections were found to be given in children's thighs—that is, the vastus lateralis and rectus femoris muscle. As a result of time constraints and limited resources, only one local nurse learnt the role of providing CE. This was undertaken to ensure the sustainability of the intervention after the departure of the United Kingdom aid support. While the study was small and would have benefited from a follow-up re-assessment at a later time to evaluate its sustainability, the study showed that change can be implemented with the aid of a simple teaching package to improve standards in a resource-limited environment. This similar approach was undertaken by GHAWA in Tanzania, where it facilitated the developmental abilities of the Tanzanian NMs attending CE. The intention of the program was to support 'growing their own' workforce and the maintenance of CPD mentality. By doing so, it was anticipated that the education programs delivered by GHAWA would enhance the sustainable development of CE when GHAWA eventually ceased activity in Tanzania.

CPD is essential and mandatory to maintain professional registration in developed nations, such as Australia (ANMC, 2009; Ross, Barr, & Stevens, 2013). While it remains debatable to mandate CPD for registration in other countries and states, such as those in the United States, consensus in the literature articulates that, to provide a consistently high level of patient care, the concept of CPD linked to ongoing education is an essential and virtuous obligation of all nurses (Fleet et al., 2008; Ross et al., 2013). In developing countries, medical missions, aid and development programs use their healthcare expertise and educational resources to influence practice (Ahluwalia et al., 2010; Lofmark & Thorell-Ekstrand, 2009; Nartker et al., 2010; Ott & Olson, 2011). This aligns with components of the MDGs to improve health in developing countries (United Nations, 2000; WHO, 2008). Aside from the 'train the trainer' approach, Ott and Olson (2011) purported that, to provide services and foster sustainable programs in underserved

nations, other factors are vital, such as partnerships with government, local universities, healthcare facilities and other non-profit health organisations. In light of this, GHAWA considered these factors when assessing the needs and developing sustainable CE with partners in Tanzania.

## **2.4 Summary**

This chapter has provided an overview of the relevant studies and literature related to nursing and published information about CPD in Tanzania. Much of the literature in this area indicates the dire shortage of human resources for health and medical resources, which affects workers' ability to practice safely. Although the scale of the issues differs depending on the country, these concerns are shared by other nations. There also appears to be a disparity in awareness about CPD and its requirement for renewing professional practice licensure in Tanzania.

It is clear and widely understood that CPD facilitates the upskilling of knowledge and skills to improve NMs' performance to give quality care. In the case of underserved nations, where resources are scarce, medical missions and international aid programs operating in developing countries use their healthcare expertise and educational resources to influence practice. However, there is limited research examining how CPD is sustained in the context of a developing nation. Further study in this area is needed to better understand the sustainability of CPD services provided by international missions, and, more importantly, to guide resource-poor areas to build their own capacity, so they can continue to provide professional development opportunities that will ultimately benefit their workforce at large. The following chapter presents the methodology used for this study.

## **Chapter 3: Methodology**

### **3.1 Introduction**

As discussed in the previous chapters, despite the contemporary world's evolving healthcare and clinical practice advancements, certain challenges remain an issue, such as shortage of health workers, access to medical resources and keeping abreast with best practice to provide quality care. This is particularly apparent in resource-limited settings and countries, such as Africa. This study seeks to identify the perceptions of CPD in Tanzania of Western Australian NMs (WANMs) and the reality of CPD from the perspective of Tanzanian NMs (TNMs). Participants of the education programs offered by GHAWA were included in the research. To consider a suitable approach for this study, this chapter begins by examining the paradigm and the relevant approach used by the researcher. It also addresses the research design and rationale for the chosen methodology. Further, it outlines the strategies employed to ensure research rigour and the validity of the study.

The philosophy of conducting research first requires an understanding of the worldview of research, otherwise known as the paradigm, and the methods with which it may be conducted (Weaver & Olson, 2006). The literature shows that, depending on the enquiry, there can be more than one research paradigm and way to undertake research. Thus, the first question that had to be answered by the researcher was: what research stance is appropriate for the work being examined here? As such, this chapter presents details of the steps and methods undertaken in this study.

### **3.2 Paradigms for Nursing and Midwifery Research**

Paradigms are a set of beliefs or worldviews regarding the different approaches to conceptualising research (Creswell, 2015; Weaver & Olson, 2006). There are practices within a discipline that enable researchers to structure enquiry and bridge their philosophical assumptions with the chosen methodology (Weaver & Olson, 2006).

The positivistic and naturalistic paradigms are seen as two broad worldviews in nursing and midwifery research (Jirojwong, Johnson, & Welch, 2014; Keele, 2011). The positivistic paradigm—sometimes referred to as mainstream or traditional research—is

underpinned by quantitative methods conducted through scientific techniques, such as laboratory trials (Fraser, 2014; Jirojwong et al., 2014). However, the inability of the positivist approach to explore human experiences in a holistic manner led to the development of the naturalistic paradigm (Jirojwong et al., 2014). The naturalistic, or interpretative, paradigm emphasises understanding the meaning individuals ascribe to the actions and reactions of people's experiences (Weaver & Olson, 2006). This opposite paradigm paved the way for conducting qualitative research methods to explore phenomena as they occur in the natural setting and the lived experience of the participants (Jirojwong et al., 2014).

The literature suggests that research should possibly not be limited to only one paradigm (Creswell, 2015; Creswell & Plano Clark 2011; Stange, Crabtree, & Miller, 2006). The development of quantitative research then qualitative was followed by mixed-methods research, which is also referred to as the third research paradigm (Johnson & Onwuegbuzie, 2004, as cited in Creswell & Plano Clark, 2011). By taking a pragmatic position, mixed-methods research combines the quantitative and qualitative approaches, whereby Jirojwong et al. (2014) argued that the research question becomes more significant than the paradigm that generates the method. The combined approach in a single study can overcome the discrete weaknesses of each paradigm by activating their strengths, thereby complementing each other to generate new knowledge and provide fuller discernment of the study (Stange et al., 2006). The applicability of this approach is particularly beneficial for the purpose of this research study. A positivist view would have generated quantitative data that would limit the richness of the data that could be uncovered. Coupled with a naturalistic view through interviews (qualitative investigation), this study was able to extract valuable information from those who participated in the GHAWA program. This gave depth and meaning to the research.

The mixed-methods research process gathers both closed- and open-ended data by integrating the quantitative method of enquiry through statistical means, and the qualitative approach by using stories and personal experiences, to collectively provide depth of understanding in a study (Creswell, 2015). Beyond using a single research method alone, where one data source may be insufficient, the combination of two methods gives broader application and insight to the research question. Considering the methodological choices and nature of this study, the researcher felt that the combined

approach of the positivist and naturalist paradigms was most appropriate for this research investigation. The following sections describe how the chosen approach was implemented, and expand on both the quantitative and qualitative research methods applied in this study.

### **3.3 Mixed-methods Research and Design**

Mixed-methods research integrates quantitative with qualitative research methods and data such as personal experiences (Creswell, 2015). Their collective strength allows the researcher to interpret both sets of data to better understand research problems. Central to all mixed-methods projects are three designs. Each design can have a varied sequence on how to integrate the quantitative and qualitative databases. For example, the process may commence with performing quantitative methods first, followed by qualitative methods, or vice versa. Alternatively, the research can alternately combine the two methods together. The three common designs are described as follows.

#### **3.3.1 Explanatory Design**

The explanatory sequential design uses quantitative methods first, before proceeding with qualitative methods. Fischler (2013) explained that this design links the phases by using the quantitative results to purposefully select appropriate participants for the qualitative phase of the study.

#### **3.3.2 Exploratory Sequential Design**

The exploratory sequential design explores a project or problem by employing qualitative methods first, followed by quantitative methods, to develop an instrument that is not already available. The key is to decide on a systematic framework for approaching the research. Creswell (2015) and Fischler (2013) suggested asking ‘what method takes priority when collecting and analysing data?’ and to ‘consider the sequence to conduct the research’.

#### **3.3.3 Conventional Design**

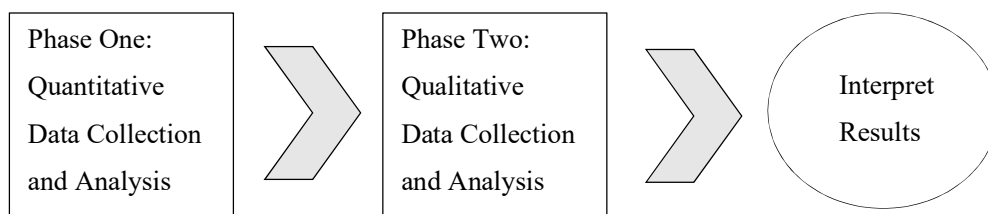
Creswell (2015) stated that the conventional design considers collecting both sets of quantitative and qualitative data together, followed by analysing and comparing both

datasets. This is undertaken when both sets of data need to be collected in one visit during the period of the study.

### **3.3.4 This Study Design**

Considering the methodological steps described earlier in this chapter, this study design of choice was an explanatory sequential design. This enabled the researcher to work through a progressive procedure to integrate quantitative data, followed by the use of qualitative methods to explain the results in more depth (Creswell, 2015). It was necessary to first identify and quantify the numbers, sites and participants, including those who were education facilitators and attendees of the GHAWA program. The grouping and analysis of the data then enabled the researcher to invite relevant participants—through appropriate sampling of relevant cohorts—to participate in a series of semi-structured focus group interviews. According to Creswell (2015), a mixed-methods approach employs pragmatic knowledge claims, which means the enquiry strategies incorporate sequential gathering of both numerical and textual information. Thus, the assumption of the enquiry is based on collecting a range of data that can best provide an understanding of the matter being researched (Creswell, 2015; Turner, Cardinal, & Burton, 2017). Bamberger et al. (2010) emphasised that, by drawing on quantitative values, conducted through mixed-methods research, qualitative data input can strengthen and better inform international development research regarding the influence and effectiveness of health interventions in the international context.

To identify the distribution of participants, determine the number of educational sessions provided by GHAWA for TNMs, and understand the effectiveness of the professional development following participation in CE programs, a mixed-method design combining quantitative and qualitative research was most suited for this study. The design choice enabled opportunities to gain in-depth understanding of this subject that could not be achieved with a single research method of quantitative or qualitative research (Kelle, 2008; Tashakkori & Teddlie, 2010). Following an explanatory sequential design—as depicted in Figure 4 below, adapted from Creswell (2015)—this research was conducted in two phases.



**Figure 4: Explanatory Sequential Design**

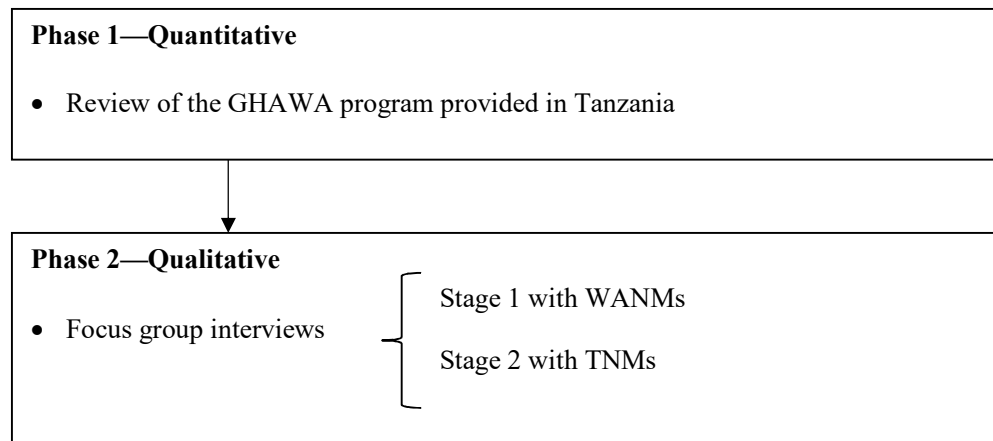
The benefit of this design allowed the researcher to measure the size of the GHAWA education program delivered in Tanzania, and ask questions such as: How many people are involved in the program? Where are the programs conducted? Where are the participants located? The findings from this initial phase then led to asking open-ended research questions with the relevant people about the effectiveness or ineffectiveness of CPD for TNMs, and the barriers and enablers for these NMs.

In chronological order, the role of the quantitative phase was to review the overall program following one year of CE provided by WANMs in Tanzania, between January and December 2013. This was carried out to ascertain the distribution of education programs and the groups and numbers of NMs involved with GHAWA during this period. The identified information then informed the next phase of the study, where the researcher was able to conduct focus group interviews with relevant participants using qualitative methods.

Due to the location of the participants, based in different countries and in order to obtain distinct information from each cohort, the qualitative phase was divided into two stages which enabled focus group interviews with nurses and midwives from WA and Tanzania. The WA cohort was identified as comprising the education facilitators of the program, while the Tanzanian cohort comprised of attendees who participated in the education. This strategy enabled the identification of education facilitators' and attendees' separate perceptions of CPD, their experiences and the effectiveness of the program. The same questions were asked of both cohorts. The objective was also to determine the barriers and enablers of providing CPD opportunities in Tanzania, and whether the development of knowledge sharing occurred among Tanzanian peers.

In addition to focus group interviews, the research participants were offered the opportunity for one-on-one interviews in the event of being unable to attend the dates set

for the focus group interviews, or if they wished to be interviewed individually. Figure 5 illustrates the design of this research.



**Figure 5: Research Design**

The combination of two methodological approaches is seen as combining the strengths of quantitative and qualitative methods (Kelle, 2008; Tashakkori & Teddlie, 2010; Thurmond, 2001). The following sections describe each research method applied in the context of this study—quantitative and qualitative research.

### 3.4 Quantitative Research

The focus of quantitative research is the collection and interpretation of statistics (Ingham-Broomfield, 2014), which involves researching groups using statistical calculation techniques—such as the computer package, SPSS—to manage data and identify sample size (Gerrish & Lacey, 2010). Creswell (2015) stated that this provides closed-ended data and variables to facilitate research findings.

One of the key advantages of this research method is that it handles and analyses statistics efficiently. This approach was used in phase one of the research study, where the researcher employed SPSS to manage the quantitative data in a systematic manner. A measurement of the research sample size was made possible, which further enabled the process of grouping the cohorts and the types of education programs offered by GHAWA, including the sites where it was delivered in Dar es Salaam. To ensure a rigorous quantitative method, Creswell (2015) suggested that the data collection should help identify the research site, the number of participants, and how the participants will be recruited to the study. Thus, the approach describes the situation in a numerical form and



provides a summary of the data (Clarke & Collier, 2015). However, it does not record words or gather verbal data, and has limitations around understanding the views of research participants, as provided by qualitative research (Creswell, 2015). Thus, to help unpack the complimentary research questions, the subsequent phase of this study used a qualitative method to enable further investigation.

### **3.5 Qualitative Research**

Qualitative research involves evaluating and comparing interventions (Gerrish & Lacey, 2010) in a subjective manner, where the views and experiences of the research participants are analysed (Keele, 2011). To learn from the participants of this study, the researcher began by posing general open-ended questions that allowed individuals to answer questions and provide information without constraints (Creswell, 2015). In addition, in alignment with the naturalist paradigm, participants were recruited and studied in their natural setting (Jirojwong et al., 2014; Keele, 2011).

The advantage of qualitative research allows participants' experiences to be understood (Creswell, 2015). In the context of this study, this method captured the participants' voices and views of CPD in Tanzania. Blending the two paradigms and methods to conduct mixed-methods research gave the researcher the ability to examine the effectiveness of CPD from the perspectives of the WA and Dar es Salaam NMs. Triangulation was used to overcome biases and compensate for any weaknesses that derive from using a single research method (Waltz, Strickland, & Lenz, 2010).

### **3.6 Triangulation**

When investigating any research problem, researchers have emphasised the importance of triangulation—the process of using more than one approach during research (Heale & Forbes, 2013; Keele, 2011). Triangulation is a critical strategy used to provide stronger and more reliable research evidence. It also enhances the validity of findings (Waltz et al., 2010) and increases confidence in the research (Heale & Forbes, 2013). Triangulation combines methodologies that use different approaches to provide better answers to the research questions (Turner et al., 2017). It also decreases the research bias that is inherent in a single methodology (Williamson, 2005) and strengthens the outcomes of a study (Bekhet & Zauszniewski, 2012). This generates a broader understanding, enables better

knowledge to be gained about a research question, and helps give a more complete view of the matter under study (Waltz et al., 2010).

To increase the validity of a study that reflects the truth of what is being studied, triangulation can be undertaken in several ways (Sarantakos, 2013; Thurmond, 2001). According to Wilson (2016), the four types of triangulation are as follows:

- data triangulation, which uses different data sources and analysis methods
- investigator triangulation, which employs more than one researcher during the process of data gathering and data analysis
- theory triangulation, which is undertaken by applying multiple theories
- methodological triangulation, which involves gathering data through the means of more than one method.

In this research, two different types of triangulation were used: methodological and data-analysis triangulation. These methods involved collecting data using quantitative and qualitative methods in an attempt to decrease the biases of each method, and using multiple methods to analyse and validate the same set of data (Waltz et al., 2010).

### **3.6.1 Methodological Triangulation**

Methodological triangulation uses more than one research method to study phenomena, and, within this context, there are two types of methodological triangulation that can be used: ‘within-method’ and ‘across-method’ (Bekhet & Zauszniewski, 2012; Waltz et al., 2010). The within-method type employs a multidimensional approach that studies a phenomena using two or more data-collection procedures from the same design method—either quantitative or qualitative, but not both (Waltz et al., 2010). The across-method type mixes quantitative and qualitative data-collection techniques. Rossman and Wilson (1985, as cited in Waltz et al., 2010) described this as providing one kind of data (quantitative) to expand the findings of another (qualitative). This approach gives perspective to the phenomenon and adds credibility to the findings.

In this study, the researcher used the across-method approach to triangulate the data collected from phases one and two, by including both quantitative and qualitative methods. The information obtained from phase one was displayed in numerical form as a summary detailing the outcomes of the overall education program delivered in 2013. With

these data and by further employing qualitative methods, such as focus groups and interviews with the WA and Tanzanian cohorts, the study attained the research participants' views regarding CPD. The data collected were then analysed, allowing expansion and better understanding of the findings from phase one, which gave richer and more credible insight into the study. Methodological triangulation enables the gathering of meaningful information that would otherwise be undiscovered with the use of only one data collection technique (Thurmond, 2001), and the approach was well supported in the case of this study.

### **3.6.2 Data-analysis Triangulation**

The use of multiple approaches to review and analyse data is referred to as data-analysis triangulation (Waltz et al., 2010). Lauri (2011) argued that this technique increases the reliability of the findings. The goal is to use different sources of information and examine the data in different ways (Tashakkori & Teddlie, 2010). In this study, data were collected from different groups at their different employment locations to enable data-analysis triangulation. The participants included NMs from WA who went to Tanzania as education facilitators, and NMs from various organisations in Dar es Salaam who attended the GHAWA education programs.

During phase two of the study, dialogues from the one-on-one and focus group interviews were analysed as discrete data based on each cohort's description, and later compared to determine areas of convergence and divergence. For example, interviews conducted in WA were undertaken initially, and the findings were transcribed and then analysed accordingly, searching for themes using NVivo—qualitative software. At a later time, upon conducting focus group interviews in Dar es Salaam with the relevant Tanzanian cohort, the information was also transcribed into textual data for analysis using NVivo. Both sets of information were analysed separately, looking for themes within each cohort. Separating the focus groups and analysing them independently, before comparing the two, provided a clear sense of the NMs' views of CPD in Tanzania. Thematic analysis of the results revealed similar themes, which supported the validity of the study. The triangulated data provided a deeper understanding of the issue and established rigour in the study, thereby enhancing the research findings' trustworthiness and reliability.

### **3.7 Rigour**

It is well documented in the literature that the core of all research is to ensure its rigour. If not, studies are unreliable (Bekhet & Zauszniewski, 2012; De Chesnay, 2015; Lauri, 2011; Waltz et al., 2010). Rigour is a methodological process that defines data accuracy and reflects the truth as the participants see it (De Chesnay, 2015). Rigour is sometimes referred to as a quality-control measure for research (LaHer, 2016). Claydon (2015) stated that, to ensure confidence in the final research product, the quality and design of the study is critical. The process of rigour is approached differently in quantitative and qualitative studies. According to Creswell (2015), rigorous procedures for both components are critical in good mixed-methods studies.

Quantitative studies strive to pursue validity and reliability in the data findings (Sarantakos, 2013; Sharts-Hopko, 2002). In contrast, qualitative studies that reveal accurate, credible and trustworthy findings ensure rigour (Golafshani, 2003; Thomas & Magilvy, 2011). Qualitative research pioneers, Lincoln and Guba (1985), purported credibility, transferability, dependability and confirmability as the four components of trustworthiness to maintain rigour (Prion & Adamson, 2014; Sharts-Hopko, 2002; Thomas & Magilvy, 2011). In this study, these processes were established accordingly, and examples of rigour testing are described under each phase of the study listed below. Central to this, the novice researcher also sought guidance from the research supervisors to assist in ensuring a rigorous process was maintained.

#### **3.7.1 Phase One: Quantitative**

##### *3.7.1.1 Validity and Reliability*

The statistics and information obtained were collected by GHAWA and uploaded when sessions occurred. These data were not available to be used by any other person unrelated to the program, and are made publically available in GHAWA reports. As a result of this availability of information on the public database, there was no need to test this information for validity and reliability. To ensure accurate data were being collated, several discussions occurred with the supervisors, one of whom was involved in planning the CE delivery for the TNMs.

### **3.7.2 Phase Two: Qualitative**

#### *3.7.2.1 Credibility*

Credibility is defined as the truth of the findings that represents a correct interpretation of the participants' views (Cope, 2014; Neuman, 2005). To ensure credibility, this study used triangulation of data using methodological and data-analysis methods, as discussed earlier. Another example of establishing credibility is as follows. During the focus groups and interviews, the researcher (also the interviewer throughout this research) would sometimes clarify responses provided by the study participants to ensure that their views were correctly understood. An example comes from a comment during a focus group interview in Tanzania:

Researcher/Interviewer: So what you're saying is we have to have good planning, select a topic and teach others. It would also be helpful to get follow-up from an educator. Have I understood that correctly?

Participants: Yes.

This strategy was used to validate statements and confirm the interpretations. According to Prion and Adamson (2014), this is another method for ensuring credibility.

Moreover, all focus groups and interviews were digitally audio-recorded. Recordings with the WA cohort were transcribed by an external transcriber, and the majority of the recordings with the Tanzanian cohort (five out of six) were transcribed by the researcher. To establish data credibility, the researcher reviewed all the audio files, and then cross-checked the textual data transcribed by the transcription service, including those transcribed by the researcher. Transcripts were also reviewed by the research supervisors, before seeking themes that emerged from the data. The emerging themes were then discussed with the researcher's supervisors to attain an independent and objective view.

#### *3.7.2.2 Transferability*

Transferability is the applicability of the findings in a study to other populations in different settings (Prion & Adamson, 2014). In this study the notion of transferability is possible because the findings could be applicable to other parts of Tanzania and developing countries. By interviewing a wide range of NMs, the results of the study were

more applicable and transferable across the broader population in the country. Thus, this provides meaning to individuals not involved in the study, and readers can relate their own experiences to the results (Cope, 2014). The findings are transferable to other contexts, provided the contexts represent the same or similar situations.

### *3.7.2.3 Dependability*

Prion and Adamson (2014) identified the key element of dependability as having a thorough description of the research methodology. Dependability can be confirmed by being clear and specific in the description of the research purpose, and by following a research process whereby the method of the study is openly described, discussed and presented. This research followed a clear and detailed mixed-methods research design, described systematically in individual phases (see Figure 5).

To ensure rigour, all documentation was retained, such as the ethics approval, interview questions, information sheets, consent forms and records of the interviews. During the course of the study, the researcher also kept notes about how interviews were planned, any changes to interview dates, and the experiences of the interviews. The following figure presents an example of the notes kept for an interview.

focus group [redacted]

20/11/15 - scheduled 11 am - Arr. via Busp. Exe: Director of Nursing  
 11:30 am.

location - maternity block.  
 participants - x6.

focus group [redacted].

Remarks: interactive group.  
 positive outcome having attended CPD of teaching - giving/using GROW materials to teach colleagues + mothers.

Due to the busy words - they cannot always deliver or have time to teach even though they have a plan. Or they do try their best.

+ staff to pt ratio } pt's comes first.  
 1 : 50 to 80 mothers }  
 1 : 100 babies. "prioritise".

+ve impact → common practice through their improved practice - shoulder dystocia obs emergency able to identify dangerous S+S

② improved confidence.

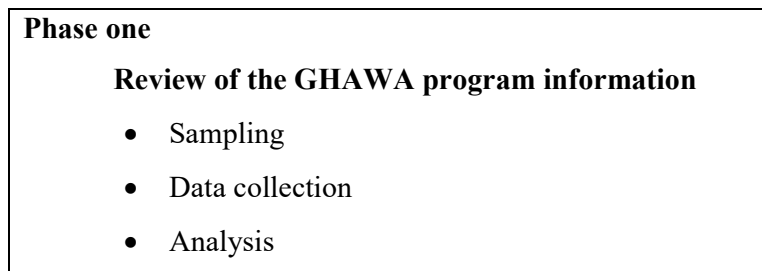
**Figure 6: Example of Interview Notes**

### 3.7.2.4 Confirmability

Confirmability is the absence of bias and assumptions in the researcher's view (Prion & Adamson, 2014). To ensure transparency, at the beginning of each interview, the researcher informed the research participants that the study was conducted for research purposes to evaluate the GHAWA program, and that the researcher (who was also the GHAWA program leader) was not operating in a manager's capacity. The participants were encouraged to be free with their views, and told there would be no repercussions for being honest and open in their opinions. Further, the researcher maintained awareness and a conscious effort to consistently follow, rather than lead, the focus groups and interviews. Findings with rich quotations from the participants that depicted each emerging theme were presented in the research report to ensure confirmability (Cope, 2014). This will be covered in more detail in Section 3.9.

### 3.8 Phase One Methodology

This section details a review of the GHAWA program information through appropriate sampling, data collection methods and analysis for phase one. This phase was undertaken in WA at the head office of GHAWA, where the program information was held. The data were collected by first examining the sample size and distribution of the program. This information was provided in multiple documents and spreadsheets, in a Microsoft Word and Excel format. To collate the information in an orderly manner, data were collected using SPSS—quantitative software. This helped the researcher manage the data before analysis could occur. Figure 7 presents a summary of the methodology applied during phase one.



**Figure 7: Phase One—Quantitative Research Method**

#### 3.8.1 Sampling—Phase One

The information for this study was obtained from GHAWA, specifically for the year 2013 because the concept of ‘train the trainer’ was not incorporated into the education sessions prior to 2013, and data were manually entered into SPSS. To carefully determine the sample of the study, the researcher needed to first understand who participated in the program, followed by determining the distribution of education facilitators and attendees, the participants’ employment positions, the type of education provided and where the education was delivered. This was achieved by framing the sampling process in a systematic manner, which enabled the researcher to delve deeper into the data.

The sample was segmented into two cohorts: WA and Tanzania. The process also identified that the WA cohort were the GHAWA education facilitators, and the Tanzanian cohort were the attendees. Cognisant of having to understand the perspective of CPD from the target population (NMs in this study), it was necessary to segment the data further to establish the positions of the program attendees, the type of education provided,



and the participating organisations in Tanzania where the attendees worked. As with an explanatory sequential design, this information eventually directed the researcher to invite the relevant participants from the relevant organisations to attend focus group interviews at a later time during the study.

### **3.8.2 Data Collection—Phase One**

The data collection for this phase of the study was undertaken retrospectively by extracting existing information from the GHAWA database. Curtis and Drennan (2013) purported that it is imperative to have a systematic process of collecting information, and to collect only variables that are required, using an instrument designed or adapted for the study. In other words, it is important to implement a data-gathering method to collect specific data that can help answer the research question.

GHAWA has been operating its program in Tanzania since 2010; thus, there is a large and diverse amount of data. However, education that involved ‘train the trainer’ and knowledge regarding how to provide clinical supervision was not established until 2013. This education was introduced by GHAWA to give TNMs the knowledge and skills to teach their fellow peers, so they can build the ability of local capacity to provide CPD. Given that this study’s purpose was to evaluate the effectiveness of CPD for TNMs who participated in the education programs offered by GHAWA, and to examine whether knowledge sharing continued, those who participated in 2013 were chosen for inclusion in this research.

To rigorously investigate this study, the researcher categorically went through the data to isolate the useful, available data (Curtis & Drennan, 2013). The researcher then developed criteria to gather relevant information to maintain a consistent method of data collection and research control, and to ensure that only the required data were extracted. The formulation of data-gathering questions and criteria developed for this study were as follows:

- the chosen year to study—that is, the year 2013 only (all data outside of this period were excluded)
- the country/location of the program
- the type of participants and what role they played in the program

- the participants' employment position (whether they were nurses, midwives or other staff involved in the program) and the location of their employment
- the education courses and specifically where they were delivered in Tanzania.

The data were collected manually and entered into SPSS (Laerd Statistics, 2013). This electronic quantitative software enabled data preparation and management before proceeding to statistical analysis of the data. Using a systematic approach, Table 1 presents the layers, or parts, of information identified for data collection.

**Table 1: Parts Identified for Data Collection**

Part 1: Country Location and Region	<ul style="list-style-type: none"> <li>• Australia – WA</li> <li>• Tanzania – Dar es Salaam</li> </ul>
Part 2: Role in the Program	<ul style="list-style-type: none"> <li>• Facilitators</li> <li>• Attendees</li> </ul>
Part 3: Employment Position	<ul style="list-style-type: none"> <li>• Registered Nurse Only (RN)</li> <li>• Nurse Only – exact status unidentified (N)</li> <li>• Registered Nurse and Midwife (RNM)</li> <li>• Registered Midwife Only (RM)</li> <li>• Other Health Workers (OHW)</li> </ul>
Part 4: Courses Provided*	<ul style="list-style-type: none"> <li>• Course 1</li> <li>• Course 2</li> <li>• Course 3</li> </ul>
Part 5: Participating Organisation where courses delivered*	<ul style="list-style-type: none"> <li>• Organisation 1</li> <li>• Organisation 2</li> <li>• Organisation 3</li> <li>• Organisation 4</li> <li>• Organisation 5</li> <li>• Organisation 6</li> <li>• Organisation 7</li> <li>• Organisation 8</li> </ul>

\* See Appendix Q for description.

Importantly, during this process, codes were used to de-identify the people who participated in the program. Table 2 presents an example of the codes.

**Table 2: Coding Examples**

Identity markers	<ul style="list-style-type: none"> <li>• A = Attendee + number</li> <li>• P = Presenter + number</li> </ul>
Employment position	<ul style="list-style-type: none"> <li>• D1 = Registered Nurse and Nurse Only</li> <li>• D2 = Registered Nurse and Midwife</li> <li>• D3 = Registered Midwife Only</li> <li>• D4 = Other Health Workers, including unknown</li> </ul>

To uphold research control and confidentiality, coding was used so that the participants' names could not be identified by anyone other than the researcher. The collection of data in phase one was straightforward, with no interruptions. The following section discusses the next step of the data analysis.

### **3.8.3 Data Analysis—Phase One**

The information obtained from GHAWA was not originally gathered by the researcher; thus, the data were secondary in nature. According to Curtis and Drennan (2013), secondary data analysis should be approached the same way as primary data, whereby its quality should be ensured. The main datasets provided by GHAWA were kept separate, and the data entered into SPSS were cross-checked with the original datasets to verify accuracy, before attempting data analysis. To make the dataset more manageable, a list of categorical variables (for example, including missing or unknown variables) was created by giving a code to each category. When all the information was entered in SPSS, the tabulated data were analysed using the software. A summary of the sample and measures were then presented in simple tables—also known as descriptive statistics. This meant that the long list of raw data was condensed to show the results of the data collection and variables in a summarised statistical format. For example, in Table 3, the data show that, in 2013, a total of 12 facilitators travelled from WA to provide education in Tanzania; that all facilitators were nurses, midwives or had dual registration; that three types of education were provided; and that a total of 12 courses were delivered that year. Thus, discussion of the results through statistical commentary was made possible (Laerd Statistics, 2013; Trochim, 2006).

**Table 3: Example of Summary of Program Education Facilitators**

Summary for Education Facilitators – GHAWA Program 2013 (Total)	
Number of facilitators (i.e. WA cohort)	12
Facilitators' designations/positions	RN only = 7 RN and Midwife = 4 RM only = 1 Other Health Workers = 0
Type of course/education provided	3
Number of course/education provided	12

With the initial descriptive analysis now complete, cross-tabulation was undertaken to gain an in-depth analysis of the outputs and the relationships of the variate statistics. This was achieved using SPSS computer manipulation, which generated the findings in table and graph illustrations. This provided visual representations of the findings for phase one. Table 4 presents an example of this. Three types of education were delivered in 2013: the subject areas of acute and emergency care, midwifery and neonatal care, and clinical supervision. A total of 12 education facilitators were involved, comprising four facilitators who provided education in acute and emergency care, five for the midwifery and neonatal care courses, and three for the clinical supervision courses.

**Table 4: Distribution of Type of Education and Number of WANMs**

Name/Type of course/education provided in 2013	Number of WANMs (i.e. education facilitators) delivered CPD in 2013
Acute and Emergency Care Course	4
Midwifery and Neonatal Care Course	5
Clinical Supervision	3
Total	12

### 3.8.4 Summary—Phase One

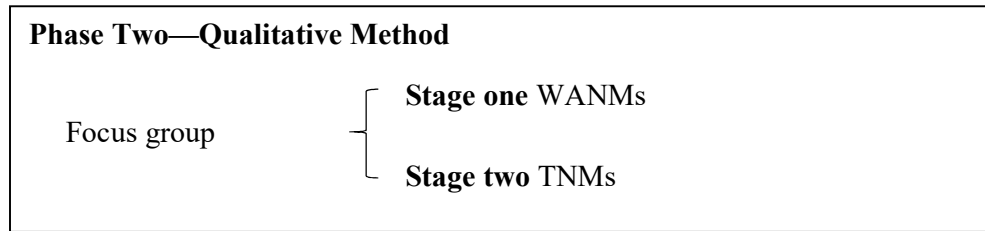
This section brings together details regarding the methodology for the quantitative phase of this study. Figure 8 presents a diagrammatic summary of the key processes used in phase one. The findings from this phase later informed the methodology employed for phase two.

<b>Phase One—Quantitative Research Method</b>	
<b>Review of the GHAWA program information</b>	
Sampling	<p>Two cohorts</p> <p>WA cohort                                      Tanzanian cohort</p> <p>Educators                                      Attendees</p> <p>Type of education provided      Participating sites</p>
Data Collection	<ul style="list-style-type: none"> <li>• Retrospective data collection with the use of data-gathering criteria</li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• SPSS—quantitative software</li> <li>• Descriptive statistics</li> <li>• Cross-tabulation</li> </ul>

**Figure 8: Phase One Summary—Key Processes**

### 3.9 Phase Two Methodology

Phase two of this study was undertaken to ascertain the participants’ views of the CPD education provided by GHAWA in Tanzania. To achieve this, qualitative methods were employed by means of appropriate sampling, data collection and a data-analysis strategy. The outputs of phase one identified the two cohorts from separate countries: WA and Tanzania. Phase two involved focus groups and interviews, and was conducted in two stages. Stage one was undertaken in WA, while stage two was conducted in Tanzania (Figure 9). Accordingly, this section describes the processes completed for both stages.



**Figure 9: Phase Two/Research Design**

### **3.9.1 Phase Two/Stage One**

#### *3.9.1.1 Sampling*

The data collected from phase one identified the location of the program, the role and employment positions of those involved, the type of courses, and where the courses were provided in Tanzania. The first stage of phase two focused on the WANMs, who were also the education facilitators of the program in 2013. They were experienced NMs who volunteered to deliver CPD by sharing their knowledge and skills on subject areas within their field of expertise. Based on the results from phase one, three types of CPD were delivered. These subjects encompassed maternal and neonatal care, acute and emergency care, and clinical supervision. The outputs also indicated the total number of WA participants involved that year, and the participants’ substantive employment. They worked at various public and private health services in WA. The data demonstrated that the majority came from the public sector, and these health services were part of the WA government administration.

GHAWA was administered from the Department of Health—specifically, the Nursing and Midwifery Office—where it also had the support of the Executive Nursing and Midwifery Directors of WA public health services, who gave staff the opportunity to participate in the program. In addition, the Chief Nursing and Midwifery Officer (CNMO)—who led the Nursing and Midwifery Office in the health department—regularly met with these executives at the WA Health Nursing and Midwifery Advisory Council (WAHNMAC) (Tamaliunas, personal communication, October 2015). The CNMO suggested that the researcher provide an out-of-session WAHNMAC discussion paper to gain their support and endorsement of this research.

It was planned in phase two/stage one of this study to use purposive sampling, where research participants were recruited from the pool of WANMs. Purposive sampling is the

deliberate targeting of key informants who can help provide rich information for the study (Suri, 2011). This sampling process allowed the researcher to target the specific group of WANMs who went to Tanzania with GHAWA in 2013. Random sampling was not appropriate for the study because the study was from the perspective of NMs who delivered the education and NMs who received it. This group of nurses had to be able to describe their experiences of delivering and receiving CPD so they had to be purposively selected.

The intention was to conduct focus group interviews with the target group using open-ended questions in a semi-structured manner. Acknowledging the CNMO's recommendation highlighted earlier, the researcher wrote to the Executive Nursing and Midwifery Directors via the WAHNMAC, requesting their endorsement of the study and permission to recruit relevant staff from their respective health services to participate in this study (Appendix C). Their support was received, and the 12 WANMs who participated with GHAWA in 2013 were invited to take part in focus group interviews.

The initial plans were to conduct two focus group interviews, consisting of up to six participants at a time. The final number of participants for each cohort was anticipated to be between six and 12—a number considered optimum for focus group interviews (Bloor, Frankland, Thomas, & Robson, 2001; Morse, 2010). However, the researcher was mindful that the information accessed from GHAWA was retrospectively collected (during phase one) and that the participants' contacts may have changed in the intervening years. Nonetheless, the researcher attempted to connect with the participants using the available contacts. An information sheet (Appendix G) specifying the research and consent form was provided via email, and six people consented to take part in the interviews.

To maximise participation, these individuals were invited to attend the focus groups and were given the opportunity to complete a one-on-one interview if the focus group timeframe was not convenient, or if they preferred to be interviewed individually. To enhance flexibility, they were given the option to meet at a mutually convenient location, interviewed by Skype or teleconference. Table 5 lists a sample of the schedule, including those who self-elected to participate in the focus groups and interviews.

**Table 5: Interview Schedule in WA**

Type of Interview	Number/Mode/Location	Location
Focus group one	Two participants attended in person Two participants attended via teleconference	Department of Health Two participants were outside of the WA metropolitan region, and connected via teleconference for this focus group interview
One-on-one interview one	One participant attended via teleconference	The participant was outside of the WA metropolitan region, and the researcher used the teleconference facility at the Department of Health to conduct the interview
One-on-one interview two	One participant attended in person	Department of Health

Participants who attended the focus groups interviews and one-on-one interviews in person felt that the Department of Health (located in the city of Perth) was a central meeting point. Two participants were living outside of the Perth metropolitan region, and opted to be interviewed via teleconference. This was arranged accordingly, and the researcher was able to use the department’s teleconference facility to conduct the interviews.

### *3.9.1.2 Data Collection*

A set of guiding questions was developed prior to conducting the focus group and one-on-one interviews. The questions were reviewed by two of the researcher’s supervisors. A trial interview was undertaken with an academic peer from WA, and refinements were made to the questions following the mock exercise. This helped ensure the questions were open-ended, with a clear focus on the study, bearing in mind that the emphasis was to ascertain the views of WANMs who delivered the GHAWA program in Tanzania. Prompting cues were also established in anticipation of clarifying the main questions being examined. For example, a main question was: ‘What do they [the TNMs] need to provide and implement professional development education sessions in their workplace?’ This question had prompts such as: ‘What do you think enables them to continue providing CPD education sessions in their own workplace?’ and ‘What do you think



prevents or stops them from being able to continue providing professional development education in their own workplace?'. After the questions were set, these were used consistently to guide the interviews. This enabled a standard questioning process with the recruited WANMs. The views of these participants could subsequently be explored (Creswell, 2015). The entire set of guiding questions is available in Appendix H.

At the start of the interview, the researcher clarified to all participating individuals the purpose of the study, and that permission to conduct this research has been granted from the University of Notre Dame Australia (UNDA) Human Research Ethics Committee (HREC) (Appendix B). Participants were informed that data would be collected in the form of digital audio recordings. These recordings would then be transcribed and analysed. Their confidentiality would be maintained throughout this study, and there would be no repercussions should anyone choose to withdraw at any time during the interview. The researcher, further, ensured that verbal and written consent was completed and received during this period.

Focus group one (as per the schedule sample in Table 5) was held at the Department of Health and consisted of four participants, two of whom attended in person and two of whom joined the interview via teleconference. The interview flowed well; however, it was difficult to gauge the body language of those participating via teleconference. Thus, at every opportunity, when those participating in person had given their opinions, the researcher would give the teleconference participants the opportunity to contribute their thoughts. The one-on-one interviews ran smoothly, including those attending in person and teleconference. The focus during each interview was only on one person; thus, there were no interruptions. The researcher made further notes at the end of each interview as a way of journaling thoughts about how the interview went and general themes that surfaced at the time.

On completion of the focus group and one-on-one interviews, a professional transcriber was engaged to transcribe the data collected via digital audio recordings. The participants' confidentiality was maintained by ensuring the transcriber signed a transcription privacy release form. The information documented in Microsoft Word format was provided to the researcher, who then cross-checked the data by listening to the recordings and revising the textual data transcribed by the transcription service. This was undertaken to ensure accuracy and data credibility. Following this, the data were analysed using the qualitative

data analysis software, NVivo 10 (Bazeley, 2007). This is discussed in the following section.

### *3.9.1.3 Data Analysis*

The focus group and one-on-one interviews during this first stage of phase two generated a large amount of narrative materials—that is, qualitative data. Thus, it was necessary to implement a procedure to break down the whole text into small units of content that were manageable for analysis (Vaismoradi, Turunen, & Bondas, 2013). This process also included checking the data to ensure accuracy, reading the content several times, writing notes and developing themes that captured the views of the participants (Creswell, 2015).

Content analysis and thematic analysis are two common approaches used to conduct qualitative studies in nursing research (Vaismoradi et al., 2013). Content analysis involves a systematic approach to preparing data, categorising textual information to interpret meaning and themes, and reporting on the results—including the quantitative counts of the codes (Elo & Kyngas, 2008; Vaismoradi et al., 2013). Thematic analysis is similar to content analysis, as it also analyses and reports on the pattern or themes identified within the data; however, it does not count the frequency of codes identified, but purely examines the details of the qualitative data and its degree of interpretation (Braun & Clarke, 2006). Thematic analysis is a qualitative analytical method for analysing, categorising and reporting themes within data (Braun & Clarke, 2006). It also helps describe specific areas of the research questions, searching for themes and reviewing the themes until the researcher can no longer see any new information within the data (Walker, 2012). Thematic analysis requires thorough data familiarisation so that initial codes can be generated. In the current study, the researcher looked for themes and continued to review the themes to refine the characteristics of each theme. This thorough analysis produced compelling examples that related back to the research question and the study (Vaismoradi et al., 2013).

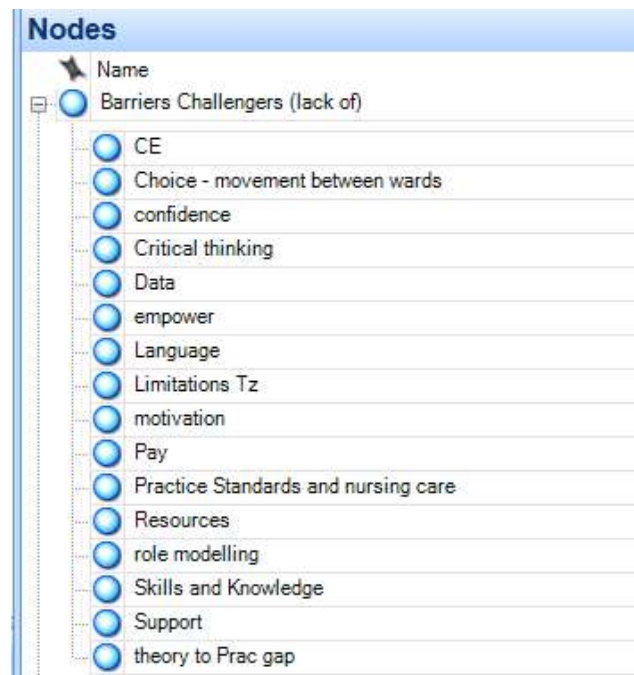
The first exercise of creating a long list of emerging nodes was logged with explicit quotations within NVivo. The researcher then reviewed these themes again, and started to generate subthemes. These subthemes were then categorised under broader themes or headings. This arduous process permitted the initial themes to be refined and compressed, and a deeper observation of the participants' views further emerged. It displayed specific

issues that influenced their response to the main research question, thereby allowing their experience to be well understood without bias (Daly & Lumley, 2002). Considering that this research sought to examine the effectiveness of CPD in Tanzania, and its barriers and enablers for continuing into the future, thematic data analysis was chosen as the approach to analyse the rich data gained from the focus group and one-on-one interviews.

The NVivo software was used to help structure and arrange the documents prior to performing data analysis. This process took a while, as the researcher was new to using the program, and tutorials were required to learn to use it effectively. After becoming familiar with the qualitative software package, it became easier to make useful and manageable data records (Bazeley, 2007). For example, the length of time for all interviews was approximately 40 minutes to 1.5 hours. This generated a significant amount of qualitative data records, which was challenging to manage. There were a minimum of 27 pages for one interview, and up to 50 pages for the focus group interviews. With the use of NVivo, structuring and managing the overall data was made easier. The entire data source of transcripts was imported into NVivo, which enabled codes (or nodes in NVivo) to be created and grouped while reviewing the data numerous times for themes.

The initial themes that emerged were relatively large, generating a long list of nodes. These were summarised into an overall tree map, and then discussed with the researcher's supervisor to attain an independent and objective view. They were then compressed by re-reading the notes taken during the interviews, and grouping similar contexts under several generic nodes with relating sub-nodes. For instance, under Question 4 ('What is needed to provide and implement CPD in the Tanzania workplace?'), the responses highlighted factors that were linked to the 'enablers' and 'barriers' of providing CPD in Tanzania, both of which were observed as broad or overarching nodes. The responses to this question included comments such as: 'they need support to be able to make the change' (focus group one), 'heavy workloads' (focus group one) and 'resources of time, resources of people ... if you've got 30 babies to look after and you are the only person ... it's very difficult to do more' (one-on-one interview two). These comments became sub-nodes or subthemes titled 'support' and 'resources' created under the main 'barriers' node. The context of data meticulously examined gave depth and understanding to the

particular circumstance (Vaismoradi et al., 2013). Figure 10 presents examples of sub-nodes listed using NVivo.



**Figure 10: Example of Sub-nodes Categories using NVivo**

#### *3.9.1.4 Summary—Phase Two/Stage One*

Section 3.9.1 has outlined the steps undertaken to gather data and analyse the study conducted with the WANMs. Figure 11 summarises this first stage of the qualitative phase. The process enabled the views of this group to be identified in a thematic manner. This led to a subsequent process of conducting focus groups interviews with the Tanzanian cohort, so that a comparison of their experiences and views could later be determined.

<b>Phase Two/Stage One—Qualitative Method</b>	
<b>Interviews with WA cohort</b>	
Sampling	<ul style="list-style-type: none"> <li>• Purposive sampling <ul style="list-style-type: none"> <li>○ WANMs previously participated with GHAWA in 2013</li> <li>○ Total of six consented to participate in study</li> </ul> </li> </ul>
Data Collection	<ul style="list-style-type: none"> <li>• Focus group and one-on-one interviews <ul style="list-style-type: none"> <li>○ Digitally audio-recorded</li> <li>○ Externally transcribed</li> </ul> </li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• Thematic analysis</li> <li>• NVivo 10</li> </ul>

**Figure 11: Phase Two/Stage One—Key Processes**

### 3.9.2 Phase Two/Stage Two

#### 3.9.2.1 Sampling

Stage two of the qualitative phase focused on the TNMs. As discussed earlier, the outputs of phase one informed the methodology process for this second phase and stage of the study. The findings (Table 6) revealed that there were 149 education attendees, comprising NMs and other local staff. They came from eight different organisations in Dar es Salaam, and attended the three types of CPD education delivered that year: maternal and neonatal care, acute and emergency care, and clinical supervision.

**Table 6: Summary of GHAWA Program Attendees in 2013**

Summary of Attendees—GHAWA Program 2013 (Total)	
Number of attendees (Tanzania cohort)	149
Number of organisations where attendees worked	8
Type of education attended	3

The researcher initially intended to target the specific NMs who attended the CPD that year; however, the available dataset from GHAWA did not include specific details, such as participants' contacts. Coupled with the findings from stage one (the focus group and interviews with WANMs), the data highlighted that NMs from Tanzania were regularly

required to rotate through working at different wards within their hospitals. For example, ‘there is a lot of movement and lack of choice of movement that they get exposed to’ (focus group interview one) and ‘the nurses in many of the hospitals that we were training actually rotated through constantly’ (one-on-one interview two). This posed challenges to pinpoint the key informants (specific TNMs); thus, purposive sampling was not possible.

Consequently, convenience sampling had to be used. This method of sampling identifies people who are conveniently available to participate in a study for a specific purpose. In other words, the technique relies on attaining participants who fit the criteria of the study and are conveniently available to participate (Emerson, 2015; Saunders, Lewis, & Thornhill, 2012). The researcher in this case had to travel to Dar es Salaam to conduct focus group interviews within a fixed timeframe of one week. Saunders et al. (2012) purported that such a sampling approach and collection of data can be facilitated in a short duration. Thus, convenience sampling was selected as the most appropriate sampling approach for stage two of this study.

This study developed inclusion criteria to ensure that the right sample of participants was invited and to gain a rich understanding of CPD delivered by GHAWA, including its progress and outcomes. The initial intention was to conduct focus groups with specific NMs who had attended education involving ‘training the trainer’. As identified in stage one, aspects of ‘train the trainer’ concepts were incorporated into some of the three courses delivered in 2013; however, specific details regarding the attendees were unknown. As such, the criteria to participate in stage two of this study included participants who had previously attended education programs delivered by GHAWA, especially those from 2013, where possible. The researcher wrote to all eight organisations and enlisted assistance from the respective nursing directors and hospital administrators to invite NMs who fitted the inclusion criteria from within their organisation to participate in the focus groups. For convenience and to be consistent with this sampling technique, the researcher offered to conduct interviews onsite at their respective hospitals during a suitable time identified by the Heads of Department, when the majority of NMs could participate. A schedule of focus group interviews over a period of one week was then devised by the researcher. Appendix P lists the organisations where CPD was provided by GHAWA and where interviews were conducted.

With support from the relevant organisations and through a convenience sampling process, a total sample size of 33 NMs consented to participate in focus group interviews. Organisation three was closed during the time when the researcher was in Dar es Salaam to conduct the interviews, and the head of this organisation indicated that they were unable to provide staff to attend the focus group interviews. Consequently, there were no participants available from this location. The timings of the focus groups were structured in way that allowed those who consented to, attend the interviews at a time that was convenient for them; either during their work time, shift change or over period and days off, who were able to come specifically for the focus groups. The number of participants at each location was anticipated to be between six and 12—a number considered optimum (Bloor et al., 2001; Morse, 2010), as per the previous stage. However, to encompass participants who fit the inclusion criteria and were available at the scheduled time, it was not always possible to obtain the minimum number of six for each group. While the organisations were engaging with and supportive of the study, the hospitals were busy and, on some occasions, the researcher had to wait up to 45 minutes to gather a small group of people. In addition, to maximise the sample size, one interview had a mixed group of participants from different organisations who worked in the same location. For example, organisations four and five were located in the same building. As such, NMs from both organisations were invited to attend a focus group interview together, making a total of nine participants in this instance.

The sample of participants identified were TNMs who attended one or more CPD education sessions provided by GHAWA, between January 2013 and December 2015 (when the interviews were conducted). It was established that all participants during this stage of the study had attended CPD provided by GHAWA.

### *3.9.2.2 Data Collection*

This study obtained a permit from the Tanzanian Commission for Science and Technology (COSTECH) to conduct research in Tanzania, prior to conducting the focus groups and collecting data. COSTECH is Tanzania's ethics assessment and registration body for foreigners undertaking research in the country. Ethical clearance was also sought and obtained from the Hubert Kairuki Memorial University (HKMU) Ethical Review Committee (ERC). During the application process, HKMU advised that a consent form in the Kiswahili and English language should be provided to the participants involved in

the study. While the TNMs were educated in English and had a good command of the English language, the primary spoken language in the country is Kiswahili. Thus, the researcher used Google Translate (Google, 2016)—a translation tool—to translate the English text to Kiswahili. The document was then provided to a Tanzanian teacher to check that the translation and grammar were appropriate. The document was provided to COSTECH and the HKMU ERC, who later approved the consent form for use (Appendix L).

The criteria of seeking NMs who previously attended education delivered by GHAWA enabled appropriate participants to voice their perceptions of CPD during the interviews. The researcher commenced each focus group by explaining the purpose of the study, declaring ethical clearance approval, and clarified any questions participants had after reading the information sheet. Consent forms were completed and returned to the researcher at the beginning of the focus group interviews. Participants were also informed that interviews and their expressed opinions would be recorded via a digital audio recorder. They were told that collection of verbal data would then be transcribed and analysed. As with stage one (interviews with the WANMs), the TNMs were assured of their confidentiality and protection throughout this study, and that there would be no ramifications for anyone who chose to withdraw from the study.

Ahead of conducting focus group interviews with the Tanzanian cohort, a set of guiding questions were developed. These questions were similar to those asked during the earlier stage of this study (phase two, stage one with the WANMs). Asking the same open-ended questions in a semi-structured manner stimulated responses and discussion among the group (McIntosh & Morse, 2015). Consequently, the experiences and views of the TNMs who attended the GHAWA program were explored and compared with the perceptions identified by the education facilitators (WANMs). Predetermined questions followed by the sub-questions or prompting cues used with the WA cohort were also asked of the Tanzanian cohort. This was developed initially to clarify the key questions being examined. However, the researcher found this cohort to be quiet and slow to start at the beginning of the interviews. Thus, the use of ‘probes’ enabled the researcher to engage and generate discussions with the participants. It was found that, once one person started talking, the rest became more forthcoming in the discussion. Thus, the reactions were consistent with the rationale for using semi-structured interview techniques (McIntosh &



Morse, 2015). The same set of questions was used consistently to guide the interviews. This enabled a systematic order of questioning in all focus group interviews with the recruited TNMs. Therefore, congruent with Creswell's (2015) opinion, the research participants' views were identified. See Appendix J for the set of guiding questions used during stage two.

### *3.9.2.3 Data Analysis*

In this second stage of the study, the researcher initially transcribed the data collected via digital audio recordings from the focus group interviews. As a result of the volume of interviews, the researcher needed to accelerate the pace of the transcription process, and later engaged an external transcriber who was able to complete one set of focus group interviews. The transcriber was required to sign an agreement to maintain the interview and participants' confidentiality. All the data were re-read several times, cross-checking transcripts with the recordings, and editing the transcripts for accuracy. This practice also enabled data familiarisation, where the researcher made brief notes in a separate notebook as themes emerged from the large amount of qualitative data. The transcriptions were then imported into NVivo, and a list of nodes was created during the initial analysis stage of the study. Thematic analysis was also used to find patterns of meaning across the data (Crowe, Inder, & Porter, 2015).

As with the thematic analysis described in stage one, the same process was applied during the second stage of the study. A broad list of themes was initially identified and reviewed several times to refine and generate subthemes. For example, throughout the interview, matters pertaining to the challenges that TNMs experienced in their workplace were notable: 'Lack of required equipment which will help us to provide the required and good services for our patients. Sometimes there is no suction machine or it is not working and we cannot provide the good care for patients' (stage two, focus group two). Issues such as limited access to basic resources reflected a sense of being 'beyond their control' and hindering their ability to practice at the optimum level. Thus, the analysis of data in this instance categorised the subtheme of 'resources' under the broader 'barriers' theme. The findings for this stage of the study are detailed in the subsequent chapter. These findings were later compared with the findings from the WANMs. This was done to enable a true representation of the findings from both cohorts and to thoroughly explore their

perspectives, giving a dynamic reality to this study about CPD in Tanzania. Chapter 5 presents the comparison of the findings, including a comparison with the literature.

#### 3.9.2.4 Summary—Phase Two/Stage Two

In summary, the researcher travelled to Tanzania to conduct focus group interviews for one week. Using convenience sampling, 33 NMs from seven sites consented to participate in the study. Data were collected via audio recordings, and transcribed, before importing the transcriptions into NVivo. The data were analysed using a thematic analysis approach. Figure 12 provides a diagrammatic summary of the sampling, data collection and data analysis undertaken during the second stage of this study.

<b>Phase Two/Stage Two—Qualitative Method</b>	
<b>Interviews with Tanzania cohort</b>	
Sampling	<ul style="list-style-type: none"> <li>• Convenience sampling               <ul style="list-style-type: none"> <li>○ Developed inclusion criteria: NMs who previously attended CPD provided by GHAWA</li> <li>○ Total 33 NMs from seven organisations consented to participate in study</li> </ul> </li> </ul>
Data Collection	<ul style="list-style-type: none"> <li>• Focus group and interviews               <ul style="list-style-type: none"> <li>○ Digital audio recording</li> <li>○ Transcribed by researcher and an external transcriber</li> </ul> </li> </ul>
Analysis	<ul style="list-style-type: none"> <li>• Thematic analysis</li> <li>• NVivo 10</li> </ul>

**Figure 12: Phase Two/Stage Two—Key Processes**

### 3.10 Ethical Considerations

The Australian National Health and Medical Research Council (2016) stipulates that research undertaken in Australia must adhere to the principles and guidelines set out in the *2007 National Statement on Ethical Conduct in Human Research*. Ethical review committees and research participants are required to comply with these standards. Ethics considerations were upheld from the beginning of this study, and divided into sections that affected each step of the research methodology. These are addressed as follows.

### **3.10.1 Research Proposal**

Prior to research commencement, an application for low-risk review of a research project involving human participants was sought from the HREC at UNDA. As a result of the nature of the study being conducted with NMs in Tanzania, clarity was provided upfront, declaring that all potential participants participating in this study were experts and health professionals. Thus, while the Tanzanian research participants were from ‘other countries’—as described under the *2007 National Statement on Ethical Conduct in Human Research* by the Australian National Health and Medical Research Council (2016)—they were not considered a vulnerable population. As such, there were no foreseeable risks in the form of physical, psychological, social, economic or legal harm to the NMs participating in this study. Ethical clearance was approved in September 2014 (Appendix B).

### **3.10.2 Conducting Research in WA**

Permission to access the program information was then sought from the Nursing and Midwifery Office at the Department of Health, from where GHAWA was administered. The CNMO, who led the Nursing and Midwifery Office, stated that, while she supported and approved the study, it was advisable to check with the Department of Health’s Ethics Review Committee. The researcher followed suit and was advised that the study would not require ethics submission at the Department of Health, as it involved interviewing staff and did not require access to any patients’ data (Miller, personal communication, May 2015). This information was conveyed back to the CNMO, who later advised the researcher to inform and pursue support from the Nursing and Midwifery Executives of the WA public healthcare services. An out-of-session discussion paper was provided to WAHNMAC, and support to conduct the research was gained (Appendix C).

### **3.10.3 Conducting Research in Dar es Salaam, Tanzania**

Upon gaining approval from the HREC, the researcher proceeded to apply for ethics clearance in Tanzania, and received approval from COSTECH in August 2015 (Appendix

D). COSTECH (2014) is responsible for activities concerning research development in Tanzania, including the authorisation of research activity by foreign nationals.

In addition, the researcher sought support from HKMU (a private university that was a partner of GHAWA) and the Muhimbili University of Health and Allied Sciences (MUHAS—a public university in Dar es Salaam) to conduct the study. HKMU requested to review the proposal for ethical clearance, as the study involved interviewing their teaching and clinical staff. The researcher submitted an application, and gained ethical clearance soon after (Appendix E). MUHAS is one of the largest universities in Dar es Salaam that also provides training in nursing and midwifery. The intention for gaining support from MUHAS was a strategic move because the findings of this research could inform the university to aid the future development and sustainability of NMs' CE and professional development in Dar es Salaam, Tanzania. A letter acknowledging their support was also obtained (Appendix F).

#### **3.10.4 Research Participants**

Recruitment of participants was undertaken in a voluntary manner. The participants were fully informed from the start of the research, that they could withdraw from the interviews without repercussions, thereby upholding their autonomy to participate in the research. Written consent was obtained from the WA and Tanzania cohorts. The participants were also informed that the focus group interviews would be digitally recorded, transcribed, analysed, and later themed and categorised to understand the findings of this study.

Prior to engaging transcription services, the researcher ensured that a confidentiality agreement was signed and obtained. To further ensure confidentiality, all data transcribed were electronically stored and password protected to ensure information security. Access was only provided to authorised personnel. The consent forms, primary data and digital recordings of the focus group interviews are stored safely under lock and key by the researcher, and will be stored until they are destroyed five years after the completion of the research study (UNDA, 2007).

It is envisaged that the results of the research will be presented at State, National and International conferences, and published in appropriate journals. Any identifying markers—such as the names of individuals or hospitals in the focus group recordings—were removed from the transcriptions prior to data analysis. Participants were assured of

anonymity and complete confidentiality regarding their identity and contribution to the study. No participants withdrew from this study.

### **3.11 Summary**

This chapter has explained the research methodology used for this study, including its design and the manner in which data were collected and analysed. This study upheld ethical considerations specific to the research methods and participants throughout the research process. Quality research that demonstrates appropriate methods to achieve the research findings and indicates a thorough understanding of the matter being studied can influence decision makers through its recommendations (Toews et al., 2016). The findings of the research are detailed in the following chapter.

## Chapter 4: Findings

### 4.1 Introduction

CPD is a mandatory requirement for NMs in developed nations. Its purpose is to engage and enhance their professional growth and expertise. However, in developing countries, there is a lack of access to CE and professional development (Oulton, 2006). The GHAWA is an international health development program of the WA state government that was established as a result of the Australian and Tanzanian Foreign Ministers' pledge to support development of health outcomes in Tanzania. The mission of this program aligns with the WHO commitment to strengthen the nursing and midwifery workforce, and the MDG for improving maternal and child health. It assists the capacity and capability building of the NM workforce in Tanzania by providing CPD through education to improve health practices and care outcomes. This study sought to examine the effectiveness and sustainability of CPD for TNMs in Dar es Salaam by using education programs offered by GHAWA. The previous chapter explained how the investigation identified the relevant details of the program, such as who, what and where the programs were delivered. This was followed by interviewing the relevant NMs from WA and Tanzania who participated in the GHAWA program. The perceived views from both cohorts about CPD in Tanzania—including its effectiveness and sustainability—were then examined.

Following a systematic methodological framework, as discussed in Chapter 3, this chapter provides a detailed description of the findings from the two phases conducted using quantitative and qualitative methods. This also includes the findings from the two stages conducted during the qualitative research aspect of this study. This chapter is structured as follows:

- |                      |   |
|----------------------|---|
| Phase one:           | Findings from the quantitative method to review the GHAWA program during the year 2013.   |
| Phase two/stage one: | Findings from the focus group and one-on-one interviews with NMs from WA, who participated as GHAWA facilitators to deliver education sessions at various organisations in Dar es Salaam, Tanzania. |

Phase two/stage two: Findings from focus group interviews with NMs from Dar es Salaam who attended education sessions provided by GHAWA.

## **4.2 Phase One: GHAWA Program Data**

An investigation of the GHAWA program data occurred during phase one of this study. The emphasis was to review all data relevant to education conducted in the year 2013. Section 4.2.1 presents the NMs' demographics related to the program, including who, what and where the education was delivered. Section 4.2.2 presents the study findings.

### **4.2.1 Demographics**

In accordance with the methodology, the sampling method used during phase one of this study was discussed in Chapter 3. Using SPSS to manage the information, a thorough analysis of the program data enabled the researcher to answer demographic questions in a distinct manner.

Table 7 summarises the identified demographics. This step validated that GHAWA conducted its program in Tanzania and engaged NMs from WA ( $n = 12$ ) to deliver a range of nursing and midwifery specialty education programs ( $n = 3$ ) to health workers in Dar es Salaam. Twelve courses were delivered in 2013, and were attended by a total of 149 health staff, including NMs and other health workers from various organisations ( $n = 8$ ). Of the eight participating organisations in Dar es Salaam, two were private organisations and six were from the public sector.

**Table 7: Phase One—Demographics**

Demographic Item	Description	Overview
Part 1: Country Location and Region	<ul style="list-style-type: none"> <li>• Australia—WA</li> <li>• Tanzania—Dar es Salaam</li> </ul>	<ul style="list-style-type: none"> <li>• Two countries: education delivered by WANMs to health workers in Tanzania</li> </ul>
Part 2: Role in the Program	<ul style="list-style-type: none"> <li>• Facilitators</li> <li>• Attendees</li> </ul>	<ul style="list-style-type: none"> <li>• 12 WA facilitators</li> <li>• 149 Tanzania attendees</li> </ul>
Part 3: Position Title	<ul style="list-style-type: none"> <li>• Registered nurse (RN)</li> <li>• Nurse only—exact status unidentified</li> <li>• Registered nurse midwife (RNM)</li> <li>• Registered midwife only (RM)</li> <li>• Other health workers (OHWs)</li> </ul>	<ul style="list-style-type: none"> <li>• WA: seven RNs, four RNMs, 1 RM</li> <li>• Tanzania: 15 nurses, 114 RNMs, 20 OHWs</li> </ul>
Part 4: Type of Education	<ul style="list-style-type: none"> <li>• Three different courses, coded courses one, two and three</li> </ul>	<ul style="list-style-type: none"> <li>• Total of 12 courses delivered in 2013</li> </ul>
Part 5: Participating Organisation in Tanzania	<ul style="list-style-type: none"> <li>• Eight different organisations, coded organisations one to eight</li> </ul>	<ul style="list-style-type: none"> <li>• Two private and six public organisations in Dar es Salaam, Tanzania</li> </ul>

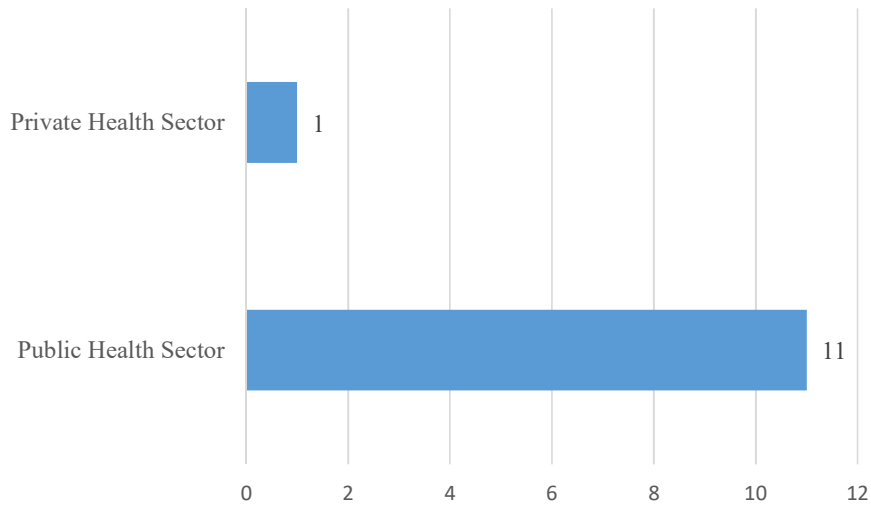
The demographics showed that, in 2013, GHAWA delivered CPD education for NMs in Dar es Salaam. Details of the findings are described in Sections 4.2.2.1 and 4.2.2.2 under the WA and Dar es Salaam cohorts, respectively.

## 4.2.2 Findings of Phase One

### 4.2.2.1 Findings of the WA Cohort

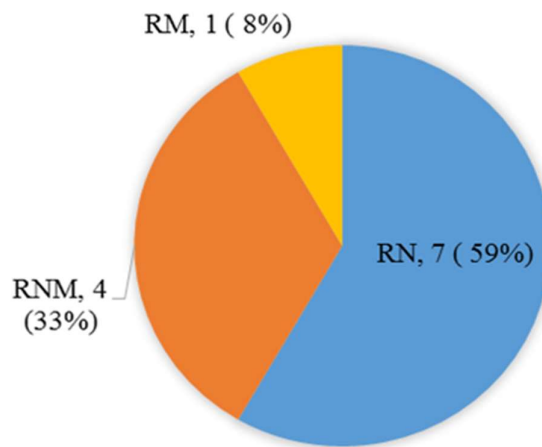
The analysis indicated that a total of 12 NMs—11 who worked in the WA public health sector and one from the private sector—travelled to Tanzania with GHAWA in 2013 (Figure 13).



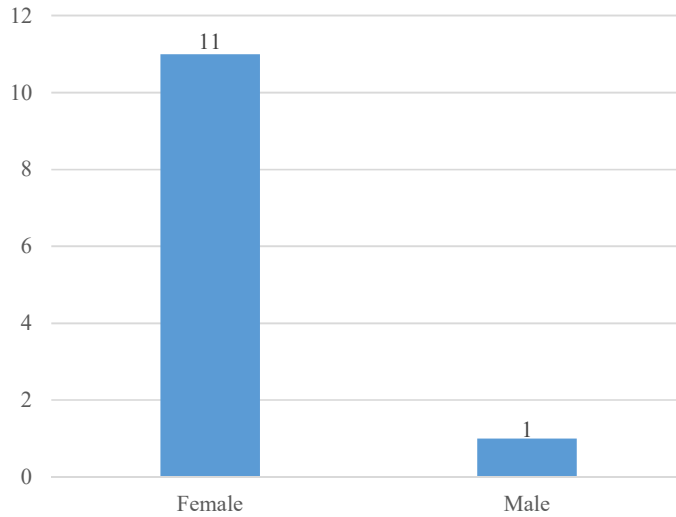


**Figure 13: NMs from the WA Health Sector**

As illustrated in Figures 14 and 15, this cohort consisted of 59% of RNs, 33% of dual registration practising as RNMs, and 8% of RMs. Of these, 11 were females and one was male.



**Figure 14: WANMs—Facilitators’ Designation**



**Figure 15: Gender Distribution of WA Cohort**

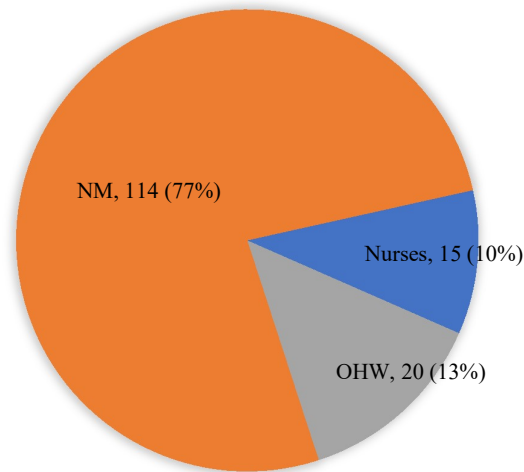
These NMs who volunteered with GHAWA had expertise in various speciality areas to facilitate CPD. A total of 12 clinical speciality courses were delivered. The education covered subjects in acute and emergency care that were delivered four times ( $n = 4$ ), midwifery and neonatal care conducted five times ( $n = 5$ ) and clinical supervision involving ‘train the trainer’ concepts delivered three times ( $n = 3$ ) that year. The duration of the clinical supervision course was three days, while the other courses were each delivered over a period of two weeks. These courses comprised theory and clinical practice.

The findings also indicated the personal contact details of the WA cohort. This facilitated communication with the relevant sample of participants to conduct focus group interviews during a later phase of this study. With the findings of the WA cohort completed, the researcher proceeded to establish further information regarding who attended the courses and where in Tanzania these courses were delivered.

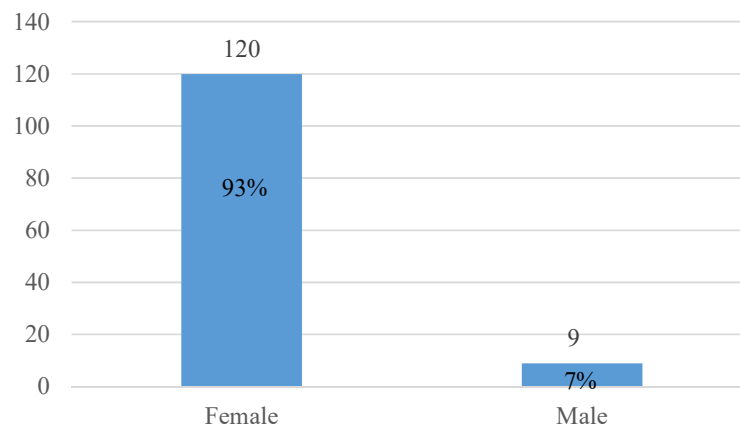
#### *4.2.2.2 Findings of the Tanzanian Cohort*

The analysis of the program data indicated that a total of 149 staff from various health organisations in Dar es Salaam, Tanzania, attended the 12 courses offered by GHAWA in 2013. The attendees were predominantly NMs (77%,  $n = 114$ ), while those who identified as nurses (10%,  $n = 15$ ) were also included. OHWs (13%,  $n = 20$ ) who were non-NM professionals—such as ward assistants or doctors—were excluded from the

study. Of the total number of attendees who identified as nurses and midwives ( $n = 129$ ), 93% of this cohort were females ( $n = 120$ ) and 7% were males ( $n = 9$ ). Figures 16 and 17 illustrate these findings.



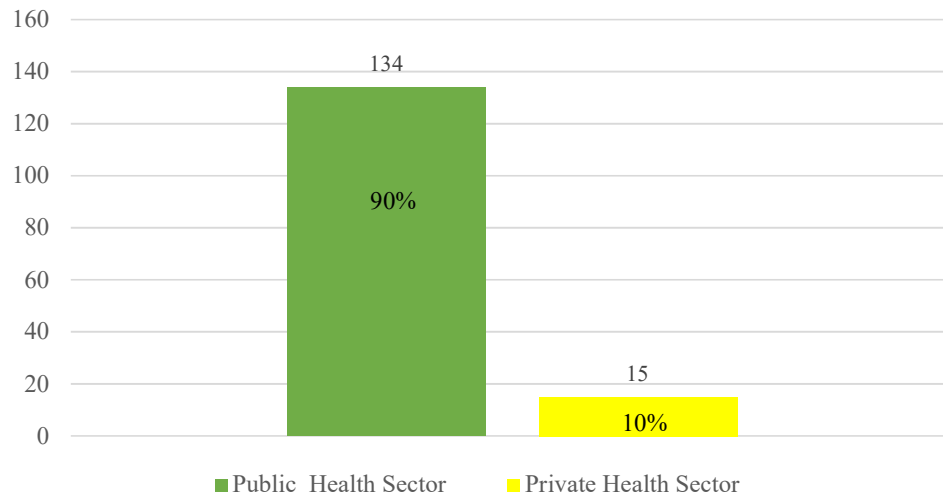
**Figure 16: Number of Tanzania Attendees and Their Designation**



**Figure 17: Gender Distribution of Tanzania Nursing and Midwifery Cohort**

Unlike the dataset for the WA cohort—which was more comprehensive, as it included personal contact details—it was identified during this phase that data pertaining to the Tanzanian attendees were limited to where they worked, what course they attended, and when and where they attended the course. These were the only records documented and

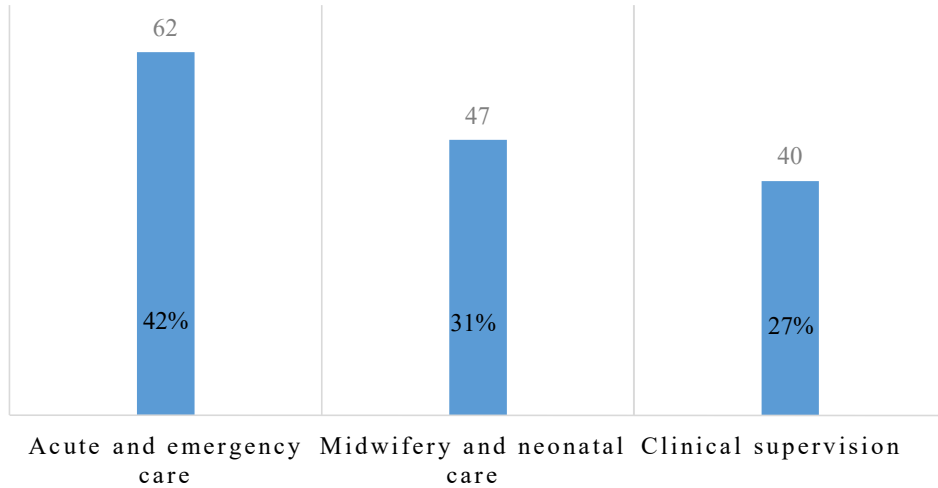
available for the purpose of this study. The researcher realised at this point that the study would have to change the sampling process and methodology of inviting the relevant participants to attend focus group interviews at a later stage of the study, as discussed in Chapter 3. However, the analysis did identify that 90% of the course attendees ( $n = 134$ ) at the time worked mainly in the public health sector of Tanzania (Figure 18).



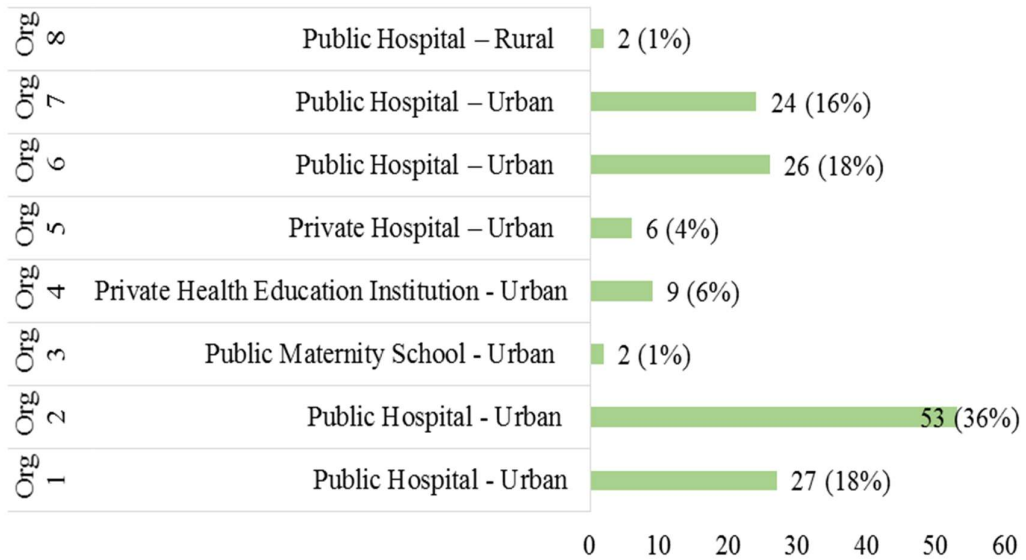
**Figure 18: Attendees from the Tanzania Health Sector**

Of the 12 courses delivered in Tanzania, 42% of this cohort attended the acute and emergency care course, 31% attended the midwifery and neonatal care course, and 27% attended the clinical supervision course (Figure 19). It was unclear why participants chose to attend specific courses, although this could have been based on the areas of organisational need.

The attendees came from eight organisations, including public hospitals ( $n = 5$ ), nursing and midwifery education institutions ( $n = 2$ ) and a private hospital ( $n = 1$ ) in Dar es Salaam. Only one organisation was located in a rural area, while the remaining organisations were located in the urban area. Figure 20 illustrates the number and percentage of staff from each organisation who attended the GHAWA program.



**Figure 19: Distribution of Courses and Attendees**



**Figure 20: Number and Percentage of Staff Who Attended GHAWA Program**

#### 4.2.3 Summary of Phase One

The key findings of phase one were as follows:

- GHAWA provided a total of 12 courses in 2013. There were three different types of courses delivered: acute and emergency care, maternal and neonatal care, and clinical supervision.

- A total of 12 WANMs delivered education sessions to 149 Tanzanian health staff from eight organisations in Dar es Salaam, including people working in education institutions, public hospitals and private hospitals.
- Of the total number of attendees, 87% ( $n = 129$ ) were NMs. The remaining 13% were identified as OHWs.
- While a clear set of descriptive data was evident, it was identified during this process that there was a lack of recorded personal details of the Tanzanian attendees. This meant that the researcher could not directly target the specific individuals to participate in focus group interviews. Consequently, the sampling process for the next phase of this study had to be modified and an alternate option to invite TNMs to participate was devised. This is discussed further in Section 4.4.

The purpose of phase one was to identify the relevant participants for this research, so that the framing of samples could occur during phase two to prepare and conduct focus groups and interviews with the WA and Tanzanian cohorts. The findings for the next phase of this study are covered in Sections 4.3 and 4.4.

### **4.3 Phase Two/Stage One: WANMs**

Phase two was divided into two stages. The first stage involved conducting semi-structured focus group interviews with NMs who were purposively selected as education facilitators who had delivered CPD in Tanzania. Based on the findings from phase one, the researcher targeted the key informants from WA who could help provide rich information about the study, including their experience of providing CPD in Tanzania.

#### **4.3.1 Demographics**

The participants involved were NMs from WA who delivered CPD in Tanzania for GHAWA. Data were collected through focus group and one-on-one interviews. The demographics of these participants are outlined below.

According to the methodology used, the participants for this stage of the study were selected through purposive sampling from the data identified during phase one (discussed in Section 3.9.1). The group of WANMs ( $n = 12$ ) identified as education facilitators were selected based on their expertise in relevant clinical specialities and management. There were seven RNs, four RNMs and one RM. The gender distribution was one male

participant and 11 female participants. Since the nursing and midwifery profession predominantly comprises women, the proportion of men to women in this instance was not unexpected. The findings showed that, in 2013, these participants were in Tanzania to provide relevant education sessions at various health organisations in the Dar es Salaam region. The duration of their stay was between one and three months. This immersion assisted in providing information about their experience and perspective regarding CPD in Tanzania. Thus, they were invited to participate in the study.

As stated in Chapter 3, the plan was to have a minimum of six participants in each focus group. However, because of retrospective data collection and the identified contact details, which were at least two years old, it was unclear whether the available contacts were still current at the time of this study. Thus, the number of participants who could attend the focus group was dependent on the individual responses of those who participated in the 2013 program. Of the 12 WA participants contacted via purposive sampling, six responded and agreed to participate in the study. The number of participants who were interviewed, were one male and five females. One focus group and two one-on-one interviews were conducted. Table 8 presents the demographic data of the participants during this first stage of phase two. The findings of the interviews are described in the subsequent section.

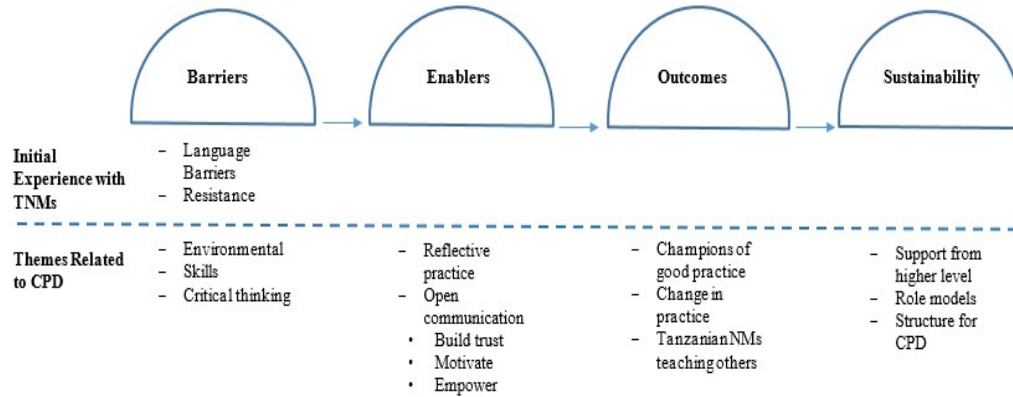
**Table 8: WA Participants in Phase Two/Stage One**

Facilitators' Designation	Gender	Participated in:
RN	4 × female 1 × male	Focus group and one-on-one interview
RNM	1 × female	One-on-one interview

#### **4.3.2 Findings of Phase Two/Stage One**

Data from the focus group and one-on-one interviews were analysed to examine the WANMs' perceptions of CPD in Tanzania. This identified the first-hand experience of their encounter with the TNMs who attended the education sessions. Section 4.3.2.1 describes their initial experiences related to language barriers and resistance, which were unique findings uncovered at the start of delivering CPD and are therefore highlighted separately. Additional findings also highlighted the common themes that emerged

regarding the barriers, enablers, evidence of the program outcomes, and sustainability of CPD in the country. These findings are discussed in detail from Sections 4.3.2.2 to 4.3.2.5, and listed in Figure 21.



**Figure 21: Themes Regarding CPD in Tanzania—WANMs’ Perceptions**

#### 4.3.2.1 Initial Experience and Encounter with Tanzania Health Staff

A close examination of the data revealed challenges that the WA cohort encountered during their stay in Dar es Salaam while providing education to the local health staff. These challenges are described under the categories of language barriers and resistance from the local NMs who worked at various organisations in Dar es Salaam.

##### 4.3.2.1.1 Language Barriers

The participants recognised that the main language of Tanzania is Kiswahili; however, the people’s command of the English language is reasonable, as NMs are taught and examined in English as part of their qualification. However, this was not necessarily reflected in the WA cohort’s experience. The interview participants described that some NMs in Tanzania were unable to fully comprehend the education provided:

Generally speaking, I think that [for the] nurses from the peripheral areas, language was more of a problem for them than the ones who were working in [organisation two], for instance. (stage one, focus group one [S1, FG1])



Another participant stated:

I think the lack of Swahili was a hindrance. It would be more meaningful to deliver it [the education] in Swahili. (S1, FG1)

The perceived difficulty was that some TNMs would not be able to engage with the education due to language barriers. Another barrier that was articulated, was the resistance to WANMs providing education.

#### 4.3.2.1.2 Resistance

They further expressed that some Tanzanian staff were resistant to the WANMs, and they felt a sense of despondency from the Tanzanian staff:

[They said] ‘You come here as the white people telling me what to do. You think you are better than me because you are white’. I said, ‘No, I’m not. You cut me, I bleed the same as you do. It’s exactly the same, we are just different colours’. (S1, FG1)

I spent a lot of time talking to them and the reason they were angry ... was more despondency, and they said to me, ‘Well, it’s all fine and well for you to come here, you’ve got all the resources and we have nothing’. It doesn’t translate across. (S1, FG1)

To gain an understanding of why some reacted in this manner, the participants from WA approached the situation with open communication and were able to overcome their differences. It was through this process that the group bonded:

[I said] ‘There are some things that you can teach me. This is a two-way street. I’m coming here to try and help you grow. You are giving just as much back to me’. We then sort of connected and had an understanding. It was quite an enlightening conversation. (S1, FG1)

The WA cohort explained that, while they encountered initial challenges in Tanzania and managed to overcome them, they also observed significant barriers faced by the Tanzanian staff. This separate theme is discussed in the next section.

#### 4.3.2.2 *Perceived Barriers*

According to the WANMs, the barriers that affected the Tanzanian staff’s productivity derived from challenges in the workplace, including environmental concerns (such as

insufficient resources), lack of skills, limited critical thinking ability and a traditional way of learning.

#### 4.3.2.2.1 Environmental Concerns

As a result of the nature of the workplace, an acute shortage of human resources and lack of basic medical equipment were environmental factors that affected the TNMs' ability to provide appropriate care. Without simple and inexpensive medical resources, the NMs were restricted and unable to provide clinical care that was considered basic best practice. For example:

One of the senior nurses was showing me how they place nasogastric tubes ... and I said, 'How do you know whether that nasal gastric tube is actually in the right place?', and she said, 'We used to have litmus pH paper, but the hospital doesn't have any anymore'. And I said to her, 'How do you gauge whether you have got it in the right place?'. She said, 'Well we just have to do the whole listening to see', which is something that we [in Australia] don't do anymore because it's not reliable. She also said, 'I don't know why we don't have litmus paper anymore'. (stage one, interview two [S1, Int2])

They just didn't have the resources ... even simple stuff, like oxygen. If they don't have oxygen, then they can't give it. When they did have oxygen, they might have one oxygen concentrator, but have to use that one oxygen concentrator between two wards. They probably could have done with four or five or 10 on a ward. In the emergency department, they only had one. (S1, FG1)

An emergency department of what was really quite a busy hospital had only one blood pressure cuff and just one station where people could get their blood sugars done ... people coming in with chest pain, but there is no means of finding out what that chest pain is. There is no ECG [electrocardiogram] machine to do a read out of their chest pain to know what's causing it. (S1, Int2)

When the WANMs realised the challenges within the hospital environment, they had to adapt the education by providing information that was relevant and by using the practical resources available in the local Tanzanian context:

They didn't have the resources to be able to put into practice what they learnt. (S1, FG1)

Practical resources that are definitely going to make a huge difference, and you've got people resources that make a difference ... that coupled with the knowledge ... knowing what to do with that information. Because knowing how they might be able to bring change. For a lot of them this is what we have to work with. (S1, Int2)

You can teach them as much stuff as you like. It would be awesome for them to know and I'm sure they would have loved to have been able to do it. But they didn't have the resources to be able to put into practice what they learnt ... so I ended up talking about more conceptual things like, learn what you can, when you can, that are more than specifics at that time. (S1, FG1)

In addition to this, according to the WANMs, the TNMs' clinical skills were limited, as discussed below.

#### 4.3.2.2.2 Lack of Skills

The WA interview participants explained that TNMs moved between wards regularly. This prevented opportunities for reinforcement of skills and clinical specialisation in high acuity areas. Explanation regarding Tanzania's rostering system showed that this affected local staff's ability to provide specialised care, thereby indicating a lack of skill in specific areas:

They change through their areas very quickly. They might be working in a kids ward, and then they are in a maternity pre-eclamptic ward, and then they might be back to an adult ward. So one of the big push is for the professionalisation of midwifery in Africa, and that people can be dedicated and skilled within that area and stay in those areas for a greater length of time ... that would have a big impact. (S1, Int1)

Another example was:

The first year I was there, there was a girl who was working in the ICU [intensive care unit] at [organisation two], and everyone spent a lot of time talking to help develop her knowledge. And when I went back the second year, she was working on the dental ward—she wasn't working in the ICU any more. It turns out that she had been moved by the management—it wasn't her choice to move. So there is a lot of movement, lack of choice of movement that they get exposed to. (S1, FG1)

One of the WANMs explained:

Certainly with the nurses that we were involved with, many of them were rotating throughout the hospital. Probably a bit more specialised, so that it was actually incorporated into speciality treatment, is probably the most effective. Because you have already got people who have the knowledge, experience and enthusiasm for that area they are working in. Having said that, all of the nurses, in many of the hospitals that we were training the nurses from, actually rotated through constantly. (S1, Int2)

In addition, it was apparent that, while the TNMs were keen to learn, their critical thinking abilities were not developed, as discussed below.

#### 4.3.2.2.3 Critical Thinking Skills

Critical thinking was also seen as a limiting factor of the local staff's capacity to extend their practice. It was described that their limited ability to critically think was because of differences between the TNMs' and Australian NMs' method of learning. For example:

A lot of them are actually really keen to improve their practice and understanding. I did find that they rote learn, so they could flick out the blood values of an ABG [arterial blood gas] ... but they couldn't necessarily put it all together and relate it back to any sort of system. (S1, FG1)

Can only deal with one system, and the basics ... can't link the two and how they work. (S1, FG1)

Seemingly, this notion of critical thinking did not occur to the WANMs until their experience in Tanzania. This was because they saw critical thinking as common practice in Australia. Some examples included:

I never really thought about critical thinking until I went there. They have no critical ability to critically analyse things. (S1, FG1)

They were very literal in what they learn. (S1, FG1)

One of the big things that was quite new to them is the whole area of critical thinking. (S1, Int2)

One participant described this to be a cultural and traditional way of learning:

I am old ... it reminds me of my hospital-based training, where you learnt processes and you didn't have to think ... how to connect any of it [systems] together. So it was like, okay ... I've learnt about gastric ulcers—tick that box. (S1, FG1)

While the barriers above are numerous and broad, some of the issues identified were beyond the NMs' control. Environmental barriers (such as the lack of equipment and human resources) are system-wide issues that required action from the government and hospital administrations. However, the NMs could alter their level of productivity by the way they thought and practiced, such as applying critical thinking skills through using reflective practice. The WANMs observed the TNMs' motivation to improve their practices and make positive changes in their workplace and clinical practice. Thus, key enabling factors to overcome the apparent barriers are described further in the following section.

#### *4.3.2.3 Perceived Enablers*

The WANMs identified that, through perseverance, relationships were formed between them and the Tanzanian staff. The use of reflective practice and open communication generated a sense of trust, motivation and empowerment. These key enabling factors are described as follows.

##### *4.3.2.3.1 Reflective Practice*

Strategies such as reflective practice enabled the facilitators to gain insight to the challenges faced by the local staff in Tanzania. It also identified to the WANMs how local staff felt about their work situation. One participant who used reflective practice as part of the education learning exercise revealed an internal level of distress, such as the helplessness experienced by the TNMs:

When we got people to do reflective stories about specifically positive or negative things that had impacted them, all of a sudden, you got the understanding of what is going on under the surface. So on the surface, 'well, this is it', but actually, underneath, their personal experience is expressed in reflection that they were very distressed. They didn't have the means to be able to help this patient, or, if they had managed to get this patient for a head scan earlier, they may have saved their life. They were actually trying.

Trying to get the appropriate treatment for that patient and really there was nowhere for them to go. (S1, Int2)

In support of the statement above, another WA participant from a focus group described their observation that Tanzanian staff were trying their best under the circumstances:

Some of the handwashing soap had been so diluted that you could barely get a lather up ... and you did see some of the gloves being washed again and again. They tried where they could, so there was at least an acknowledgement that that was the right thing to do. (S1, FG1)

Another participant explained that the reflective practice enabled TNMs to examine their existing concerns and consider what can be done differently:

I think the reflective practice was good ... it generated some discussion around issues. It also supported people to take on more advocacy roles, in that they can actually report things to supervisors or they had the power to make those changes ... give people more autonomy and permission to speak out about what is and what's not right in their clinical areas. (S1, Int1)

This practice further encouraged better communication between the WA and TNMs.

#### 4.3.2.3.2 Open Communication

The reflection and open communication processes allowed NMs from both countries to understand each other, and for the WANMs to recognise what life was like as a nurse and midwife in Tanzania. A participant stated:

I think it was encouraging for them to be able to share some of their stories—share some of their struggles with other people who would understand from a nursing perspective. (S1, Int2)

This enabled them to build a good rapport, which also fostered a sense of trust and empowerment. To maintain the connection and trust built between those involved, the participants suggested that similar people from WA who had gone to Tanzania with GHAWA in the past could return to continue delivering education. Building on the established relationship was seen as significant to providing ongoing support. For example, one participant explained:

It takes time to get their trust ... I spent a lot of time developing that relationship and developing that trust ... and that comes back to ongoing support. You can't just go in because some of them potentially perceive us as another group of Western nurses coming here—we just have to listen to them for a little while and then they will be gone. It's about that ongoing support and ongoing trust. (S1, FG1)

Other participants discussed how open communication built relationships, reinforced clinical practice development, and developed trust with their counterparts in Tanzania:

Having someone there that gains the trust and respect of the people ... because things work very differently. You can't just go in and say, 'Hi, I'm such and such, and I'm here to teach you'. You need to have somebody there that goes in regularly. That builds those relationships with the people, builds this trust. It's like building blocks. It needs to be the same person or a couple of people that are doing it because as soon as you go back with somebody new, it's starting all over again. (S1, FG1)

It's about reinforcement of practice ... and it takes time to get their trust. (S1, FG1)

The influence of reflective practice not only created trusting relationships, but also gave the NMs an opportunity to have a voice and to be heard. This motivated and empowered the Tanzanian staff to consider how things could be done differently. For example:

We need to go back to basics, like the physical assessment, looking at the IV [intravenous] cannulas ... how to prevent infections in IV cannulas. Those sorts of really basic things can actually empower the nurses. (S1, FG1)

We need to empower them with the small things that they are doing, and that comes back to ongoing support. (S1, FG1)

By continually supporting the Tanzanian staff throughout their time in Dar es Salaam, the TNMs' motivation level became apparent:

Some in our group were more interested than others, and some actually became more interested as the course went along. (S1, FG1)

There may have been one or two individuals who were maybe there because there was an incentive—either financial or some other incentive for them to be there—who perhaps didn't maybe invest in the program, so wouldn't have got as much out of it. But they were the minority. (S1, FG1)

The WANMs also revealed that CE empowered the local staff:

For probably the majority of people, they did feel more empowered and able to go and do things, and to change things. (S1, Int2)

It gave them a sense of empowerment from a psychological and learning perspective. It was worth doing just from that. (S1, FG1)

As a consequence of these enablers, the evidence of the program outcomes was apparent to the WA cohort, and the findings are presented as follows.

#### *4.3.2.4 Evidence of Program Outcomes*

According to the WANMs, the NMs in Tanzania demonstrated an improved ability to provide education and further became champions of good practice, which led to clinical practice and workplace improvement. There were also indications of local NMs sharing their knowledge gained from the program. These outcomes, as identified by the WANMs, are categorised under ‘champions of good practice’, ‘change in practice’ and ‘TNMs teaching others’.

##### *4.3.2.4.1 Champions of Good Practice*

Following the CPD education, the WANMs described that the motivated TNMs felt empowered to challenge their status quo and change the way they practiced. These individuals were observed as champions of good practice. Examples of this included:

What the program did for some of the nurses, the motivated ones, was enable them to become champions within their own clinical areas and that’s a really important thing. (S1, FG1)

When you start sowing that seed where, as an individual, you can actually change practice, you can say, ‘No, we don’t do it like that anymore. We actually understand now that this is a much better way of doing it’. So if you are able to empower somebody individually with that sense of confidence to bring change and to stick at it, I think that is a really positive thing and that is something that has already happened through the GHAWA program, by going back and going back. There are particular individuals who have really taken and run with it, and said, ‘We can do this differently, we can do this better’. (S1, Int2)



These champions had an influence on their workplace by altering their practice, thereby influencing change.

#### 4.3.2.4.2 Change in Practice

The WANMs identified that there were signs of TNMs imparting the knowledge gained from the program to their peers. This led to changes in their clinical practice and work environment. Examples included:

Depending on the degree of motivation, it sparked their interest and it encouraged them to go on to look at their practice more. (S1, FG1)

From the reflective practice ... people sort of felt that they could go back to their work environment and say, 'We need some oxygen tubing'. Or skin to skin, we'll keep the babies there for a bit longer. So I did notice more basic and more women-centred care. (S1, Int1)

Certainly from the rural area what we noticed, the changes ... there was more safe practices. Also at the dispensaries and district hospital, they put in place the eclampsia box and the PPH [postpartum haemorrhage] postpartum box, so there were changes there as well. (S1, Int1)

As a result of the education provided by other previous WANMs of GHAWA, positive changes in the TNMs practice were also noted by these research participants:

Because of previous teams that had gone through, I can remember walking into one of the ward environments and the staff had everything all written down on the board because she was a very enthusiastic person for educating staff. There is no doubt that different people have been taking on board the previous education that they've had, and taking it back into the workplace and wanting to implement it in there. And that was good. (S1, Int2)

Definitely effective ... absolutely no doubt that, from the areas of midwifery and looking after emergency situations for neonates, I would say definitely there were people who were very enthusiastic, very keen to show that practice had changed and they were doing things differently. (S1, Int2)

Thus, the education helped enhance the NMs' professional development and resulted in change of practice:

It was a lightbulb moment about some of the things they were seeing in their areas. For example, [in] the eclampsia ward, they knew that the doctors did conscious state on their patients, but the nurses never did them. One of the nurses who was a manager developed a chart for the nurses to do conscious state. So depending on the degree of motivation and the degree of their sparked interest, it encouraged them to go on to look at their practice more. (S1, FG1)

According to the WANMs, these changes created a ripple effect, as local staff imparted their knowledge and skills to their peers in their respective units and organisations.

#### 4.3.2.4.3 TNMs Teaching Others

In 2013, three types of education were delivered. One participant found it advantageous to blend elements of the 'train the trainer' course with the midwifery course:

I think when we used some of the concepts from the train the trainer course and blended it into our midwifery course, and had it very targeted to maternal health care, I believe it was effective ... that was how we were successful in running the rural program. (S1, Int1)

The WANMs described that the TNMs taught and learnt in a didactic manner. Thus, the WANMs employed an interactive approach when providing education and supporting the local staff, such as using role play and clinical drills. They found that this facilitated better engagement and interaction with the Tanzanian staff who attended their courses. The TNMs who were motivated were also able to identify a different style of teaching, and deliver education themselves:

They need support in what they are teaching. Two of the educators that we worked with, they had planned to put in to their program, such as physical assessment. The way we were teaching it, it was like a revelation to them. (S1, FG1)

They actually did provide some teaching within the clinical ward environment ... with other staff members and even doctors, nurses and midwives. We actually saw them run an eclamptic drill and we also had ... a real patient. They just pretended that they were having a fit and so everybody did that drill. And what we also noticed was, those

midwives taking them to the rural area, they could actually see the changes that needed to be made in the workplace. (S1, Int1)

The findings described in this section clearly indicate the effectiveness of the program from the perspective of the WANMs, and present suggestions about sustaining the provision of CPD in Tanzania into the future. For this to occur, the WA cohort explained that ongoing support and more work is required. Their perceptions regarding the sustainability of CPD in Tanzania are covered in the section below.

#### *4.3.2.5 Sustainability of CPD*

The overall consensus from the WA cohort showed that the TNMs were benefiting from CPD. However, while gradual changes were evident, as discussed earlier, because of the diverse and compounding issues faced by the local staff, it is difficult to create sustainable change in Tanzania. The categories of ‘support from higher level’, ‘role models’ and ‘structure for CPD’ described the efforts required to sustain CPD from the perspective of the WANMs.

##### *4.3.2.5.1 Support from Higher Level*

Aside from the limited resources and skills, other issues found to be significant in maintaining CPD and ensuring its success were that there was no supervision and monitoring of practices to support and maintain standards. The participants explained:

I saw in hospitals, there is no real governing nursing body that is going to make sure that you maintain standards. So if you’ve been nursing for 20 years and you come to a course, like some of the participants in our group, you know everything is going to slide if no one is really maintaining standards. It doesn’t mean they didn’t get to learn those things in the first place—they probably did. But as soon as they entered practice, there wasn’t any standard to be maintained really for them. (S1, FG1)

It is unclear what they are expected to do, and also it’s unclear whether they were doing it. Because if they weren’t attending to what we consider basic nursing care, then I’m not sure what their role was ... whether they were doing it or not. (S1, FG1)

The participants also stated the lack of accountability observed in the hospitals. For example:

There is that tidal wave of, well, no one else is worried about that. Whereas it's about reinforcement of practices that we are trying to change. (S1, FG1)

There is not the accountability there [in Tanzania] that there is for us [in Australia]. (S1, FG1)

Thus, efforts from a higher-level healthcare system standpoint are crucial, and support for the local workforce is needed. One participant described this:

They were saying that they needed more support, so that they would become more confident ... there wasn't the mentorship and the support there, and the sort of government program structure to allow that to occur. (S1, Int1)

Consequently, support in the form of good role models was raised as a strategy to help sustain CPD.

#### 4.3.2.5.2 Role Models

While the above observations provided insight into issues regarding standards, the participants indicated that certain strategies could create sustainable change, such as mentoring local staff to be role models and providing ongoing support for CPD. The following statements highlight the WANMs' emphasis on the need for role models:

I believe ongoing mentorship in the clinical area is what's going to make it sustainable. (S1, FG1)

Role modelling and providing support because a lot of them are actually really keen to improve their practice and understanding. (S1, FG1)

I don't believe this is sustainable unless there is provision for that ongoing support and role modelling and mentorship. (S1, FG1)

It's not just delivering the information, but actually role modelling what the expectation is. (S1, FG1)

Central to role modelling was also ensuring that continuing education was supported and made available to NMs. The participants stated:

There needs to be continuing education going on because otherwise there is always the risk that the people that have been educated, if they don't pass that on to the next people,

it will eventually get watered down and lost somewhere in the system. So the revisiting and going over again what's already been done before, both with those who have been through the course, and also for new people who have joined, actually means that it gets sustained. (S1, Int2)

Sustainable is to build up the capacity of the local workforce and I think that, first, people spending a bit of time training them and mentoring them to run workshops, and then bringing out the champions to actually run the more structured courses, and going from there. We should be able to really wind back the number of people from Australia that we send, and just have a main program person there. That's why I think the environment and the mentorship is the important part there. (S1, Int1)

Considering these comments, developing an appropriate structure to facilitate opportunities (such as finding time to teach and role model) was perceived by the WANMs as important, so that CPD could become sustainable in the longer term.

#### 4.3.2.5.3 Structure for CPD

The WANMs identified that another sustainability issue to consider—that affected the TNMs' ability to extend their CPD support locally—was finding the time to provide education. Clearly the wards were busy and understaffed; thus, the situation was not conducive to CPD as the NMs did not have the time to support their colleagues and attend to all their patients' needs. One participant explained:

Resources of time, resources of people. You know, if you've got 30 babies to look after and you are the only person, you know, it's very difficult to do more than just constantly looking after 30 babies, let alone do anything else when it comes to educational change or training or anything. That would be the biggest thing, I would say. (S1, Int2)

While this is a system issue and a significant hurdle to overcome, finding ways to structure and quarantine time for CPD, as well as creating practical opportunities to ensure its sustainability in the long term, are central to improving knowledge and safeguarding best practice. Another participant addressed this as follows:

The goal of getting ... Tanzanians to teach each other, it would make it sustainable. But getting to that point, I'm not sure—that's a difficult road. (S1, FG1)

The WA cohort agreed that CE is imperative for NMs' professional development. Although some people would volunteer and offer their expertise, such as those WANMs in this study, the question of longer-term sustainability remains. Mentoring, empowering local staff to be role models and giving local people the confidence, knowledge and time to teach and support their peers are practical ways to encourage CPD. The findings show that, to achieve a sustainable shift, solving environmental issues is just as significant as developing and increasing local opportunities for CPD.

#### **4.3.3 Summary of Phase Two/Stage One**

The key messages identified from the findings in stage one indicated that the education provided was effective. Although there were many barriers related to environmental concerns, the use of reflective practice by the WANMs facilitated the TNMs' learning and stimulated them to examine their existing practices. The outcomes of the education were that it motivated and empowered the TNMs, and gave them the confidence to make changes in their workplace, including to their own clinical practice. The WA cohort articulated that the critical elements to create sustainable change included commitment for ongoing support of CPD, and mentorship through good role modelling.

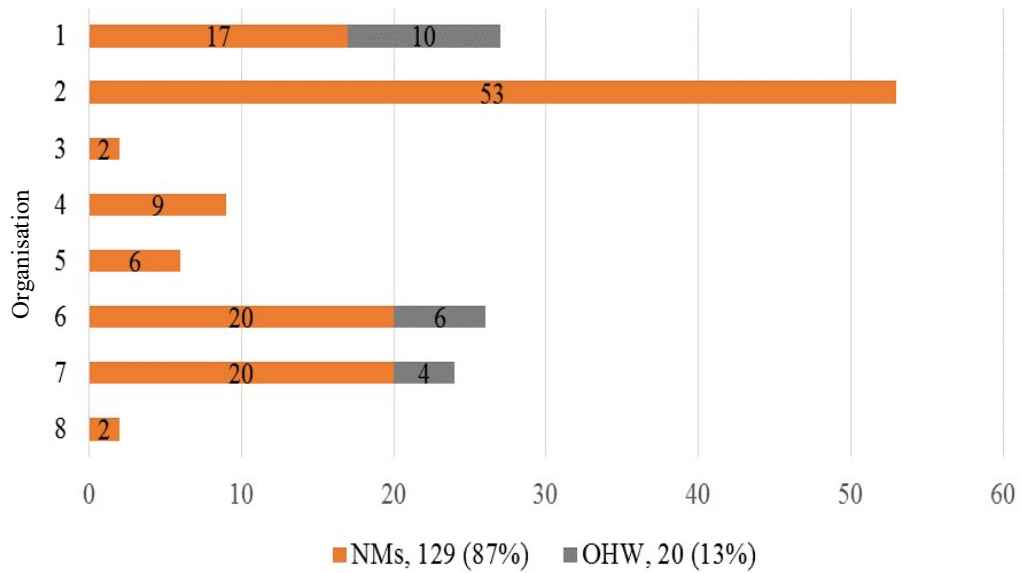
#### **4.4 Phase Two/Stage Two: TNMs**

The focus of stage two was to investigate the views of the TNMs in Dar es Salaam about CPD. This involved conducting semi-structured focus group interviews via convenience sampling with NMs who previously attended CE provided by GHAWA. Before interviews could occur, the relevant participants had to be identified, so that the demographics of these NMs could be reported. As a result, the findings from phase one (as described in Section 4.2.2) were used to facilitate this stage of the study—that is, identifying where GHAWA-related education was delivered in Dar es Salaam and from where the education attendees came. This is presented in Section 4.4.1, followed by the findings detailed in Section 4.4.2.

##### **4.4.1 Demographics**

Based on the findings from phase one (Section 4.2.2), the data indicated that 149 health staff from eight organisations in Dar es Salaam attended education sessions offered by GHAWA in 2013. These staff consisted of people working as nurses, nurses/midwives

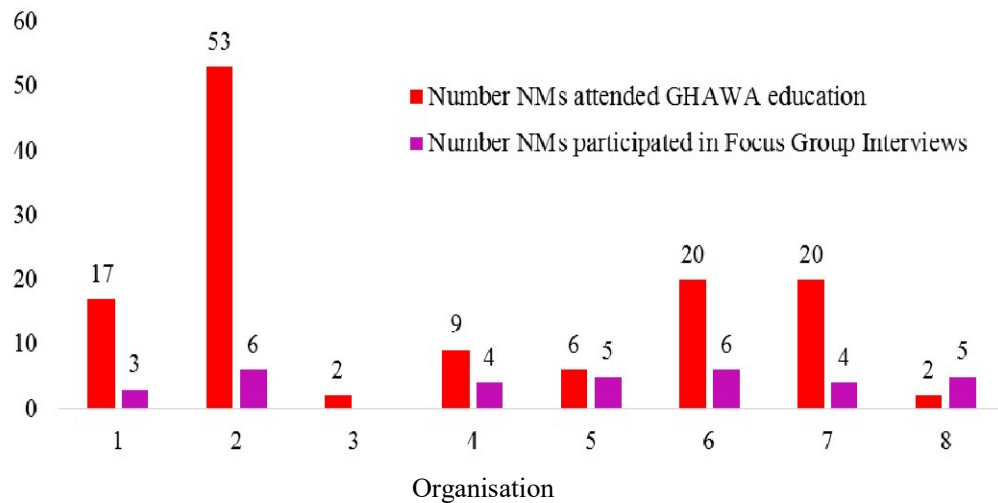
and OHWs who were non-NMs. Given that this investigation considers the views of NMs, people who identified as nurses or NMs were included in the study. Eighty-seven per cent of those who attended the CPD education were NMs. Figure 22 displays the distribution of NMs and OHWs from the respective organisations that attended GHAWA education.



**Figure 22: Designation of Tanzanian Attendees by Organisation**

The researcher originally intended to invite these NMs to participate in focus group interviews; however, because of the limited information (such as the lack of participant contact details), the researcher was unable to locate the specific individuals. Consequently, the alternative was to invite relevant NMs who had previously attended education provided by GHAWA from the eight participating organisations.

Using a convenience sampling approach (see methodology described in Chapter 3), 33 NMs from seven of the eight organisations in Dar es Salaam consented to participate in the study. One organisation (organisation number three) did not participate because they were closed and staff were away during the period when the focus group interviews were conducted. Figure 23 illustrates the distribution of NMs from the respective organisations that participated in the focus group interviews.



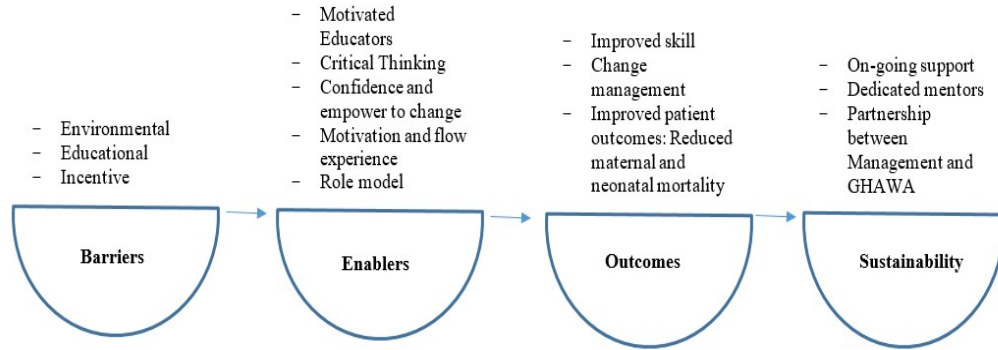
**Figure 23: TNMs—Number of Education Attendees versus Focus Group Participants**

For the participants’ convenience, all interviews were conducted onsite at the respective organisations in Dar es Salaam. Organisation numbers one, two, six and seven had a larger number of NMs that attended CPD; however, because of staffing shortages, only a limited number of NMs could attend the focus group interviews. Organisation number eight only had two staff attend CPD in 2013. This was because that was the first year GHAWA had started supporting this rural organisation. Five staff participated in the focus group interview carried out in 2015. All participants at this organisation indicated that they had attended education provided by GHAWA post-2013. Section 4.4.2 details the findings from the seven focus group interviews.

#### **4.4.2 Findings of Phase Two/Stage Two**

The data from the focus group interviews were analysed to examine the TNMs’ view of CPD in their country. This study explored the experiences of the NMs who attended the education sessions provided by GHAWA and what they did with the information. Using thematic analysis, themes emerged regarding the barriers and enablers for CPD, including evidence of the program outcomes. These NMs also commented on the need for ongoing CPD support to help sustain their development into the future. Details of the findings are discussed in Sections 4.4.2.1 to 4.4.2.4, and summarised in Figure 24.





**Figure 24: Themes Regarding CPD in Tanzania—TNMs’ Perceptions**

#### 4.4.2.1 Barriers

The key barriers to CPD identified by the TNMs were issues related to environmental, educational and incentive concerns. The findings of these were categorised accordingly and described as follows.

##### 4.4.2.1.1 Environmental Concerns

The factors that are included in environmental concerns are shortage of staff and lack of medical equipment. The most prevalent factor that limited the TNMs’ ability to participate in CE was a shortage of staff. This affected their time; thus, staff found it difficult to attend and provide CE in their workplace. Below are the participants’ comments regarding the difficulties faced by these NMs:

It’s shortage of staff. You find that maybe on the ward you are the only person. So whom can you teach when you are alone? You can work by experience, but nobody to teach. Unless you are two. You can use that single day to teach others, but we are very few in this block. (S2, FG1)

There are so many patients, so everybody is busy. Each one is our patient, so no time to teach others. (S2, FG5)

I mean, for example, when rostering, if there are three of us, at least one can go and the one that go can teach others. But because we are few, it is difficult to even do this. (S2, FG1)

The limited number of staff caring for the large number of patients identified across various organisations was raised as a major concern that further compounded the TNMs' inability to attend and provide ongoing CPD locally to their peers. The following are examples of the participants' descriptions about the dire situation of staff allocated to patients (staff to patient ratio):

In our wards, we have many patients. For example, one ward can contain maybe 40, 50, 38 patients. Maybe only one and another midwife, so there are many duties to do there. So you are looking for criteria, what is important to do first. (S2, FG1)

Sometimes may be two [staff] to 80 [patients], one to 50, or five to 100 babies at neonatal ward. (S2, FG1)

It became apparent in the focus group interviews that NMs were torn between finding the time to attend to their patients and to attend CPD. As clinical health professionals, their patients came first, and this was an obvious priority. As a result of the severe lack of human resources for health, CPD was seen to be of secondary significance. One participant explained:

The lack of human resources, because sometimes you need to attend. But because of the shortage you need, for example, teachers. You have some topics to cover within that short time and you are needed to go to CPD. So what will happen? You need to do your primary role first, and this [CPD] is secondary. (S2, FG4)

Other participants' comments regarding work prioritisation included:

Prioritise. You are going to help the patient, rather than going to education. (S2, FG1)

We have a lot of sick patients. We have no time to talk because patients are waiting for you for care. (S2, FG2)

Another environmental difficulty experienced by these NMs was the lack of medical equipment. The participants stated that this limited their ability to provide appropriate care. For example:

[We have a] lack of required equipment which will help us to provide the required and good services for our patients. For example, sometimes we have no suction machine or it is not working, and we cannot provide the good care for patients. (S2, FG1)

Some of the instrument which are supposed to be applied during the resuscitation, they are not there and, if there are, there are few. (S2, FG6)

In addition to the limited resources available to these NMs, discussions from the interviews also indicated that, after attending CPD, these NMs became aware of their lack of understanding about using the specific resources available in their workplace. This theme was called educational concern, as described in the following section.

#### 4.4.2.1.2 Educational Concern

Collectively, from the focus group interviews, this cohort recognised their limitations. One participant stated that, while they had limited resources in their workplace, there were occasions when they lacked understanding about how to use the specific resources, including their application from a best-practice standpoint. This was described as follows:

Although we do not have enough instruments to provide healthcare to our patients, but for those equipment, old instruments which we have, sometimes we didn't use it properly because we don't know how to use it. Like nasopharyngeal—that is a big change for me on how to use it. (S2, FG2)

Patients on oxygen therapy—now I can apply and know how to use it. You have to change those tubes. May be you have to give naso-tubes [nasal prongs] when the patient oxygen is low. I can change to the mask, and, if not improve, I use another type of mask. (S2, FG2)

When asked if the provision of CE existed in the workplace, the participants responded that they had good intentions to conduct education regularly and that staff were required to participate. However, it was not always possible to do so. Their rationale was again a lack of time. Such education was instead sometimes delivered by students who were on practicum at the hospital. One participant explained:

The one who plan is the block manager, but this year it has gone down. We didn't do one [CPD] last week because we are busy with patients and, most of the time, the students give the education, not nurses. The students come with their topic and they teach. (S2, FG1)

Another participant added:

Because you need to prepare the topic so you can share with colleagues. But you have lots of patients on the ward, you have to care for the patients, and when you finish you have a lot of self-activities at home and cannot prepare the topic. So you find that the time is limited. (S2, FG1)

The TNMs recognised that they needed to develop professionally, and would attend CPD and further provide education to their peers where possible. However, the findings also showed that NMs working at smaller organisations in particular did not always have regular access to CPD locally, compared with those working at larger hospitals. As one participant explained:

It is in some units only, not everywhere. Most of us don't get the education because it is not available in our workplace. (S2, FG2)

Further discussions during the interviews revealed enquiries regarding the incentive to participate in CPD. This is described in the following section.

#### 4.4.2.1.3 Incentive Issue

A separate issue regarding incentive to participate in CPD emerged towards the end of some interviews. This arose when the researcher asked, at the end of all seven interviews, if the participants had any further questions or comments to add to the study. Participants from two of the seven organisations raised the issue of financial remuneration for participating in the education. The comments below revealed that fewer staff would attend CPD if there was no remuneration:

If you tell them you have no money to give, very few will come. (S2, FG3)

You know we are given some stimulating issues, maybe money and food. Therefore, this should be increase so that to stimulate and to attract more people. (S2, FG6)

The researcher noted that the GHAWA program was provided at no charge to anyone to attend the education sessions, and while no financial remuneration was given to the attendees, refreshments were provided. This area was investigated further to gain more insight about its influencing factor. The comments highlighted that financial and food

incentives could alter NMs' attitudes towards attending CPD, and help improve participation. One participant explained that:

They attend, but they say, 'we go there, but no money'. They complain. They are reacting. But slowly they have to change—it is not all about money. (S2, FG3)

Two participants described that refreshments would be useful to encourage attendance:

If you have no money, then maybe you can have some bites. Something to eat. (S2, FG3)

When you invite someone to participate in your class, if you can encourage to have a tea inside the session. So you improve others to come and participate in the class, more people attend and will participate. (S2, FG6)

It also seemed that some participants' lack of will to participate in CPD was because of a lack of motivation. As described by a participant:

I think sometimes it's attitude. You get money if you go and attend the education ... It is related to ... lack of motivation. (S2, FG3)

The barriers identified from the focus group interviews in Tanzania paved the way to discuss factors that would improve the TNMs' productivity in their workplace through the use of CPD. This is discussed further in the following section.

#### *4.4.2.2 Enablers*

Despite the challenges faced by the TNMs, the focus group interviews also generated a significant amount of information about the enabling features of CPD. It was found that motivated educators and the application of critical thinking facilitated the TNMs' empowerment and confidence. These were categorised accordingly within the overarching theme of 'enablers', and described as follows.

##### *4.4.2.2.1 Motivated Educators*

The education facilitators played a significant role in motivating the class participants. As described below, the participants revealed that they influenced the TNMs' learning:

The kind of teacher who we're talking about, that are teaching us, they are very good motivators. (S2, FG5)

It was really helpful to us. I upgrade my knowledge and I gave my students new knowledge as well. (S2, FG4)

This was reinforced by an interview with the WA cohort (refer to section 4.3.2.4.3) in the individual's observation (see quotation from S1, Int1), where some TNMs were motivated to provide education in a non-traditional manner, such as conducting clinical drills and teaching their peers through role play. In addition, this fostered developments in critical thinking.

#### 4.4.2.2.2 Critical Thinking

It was found that the reflective practice applied by the WANMs stimulated the TNMs' critical thinking abilities. While this cohort did not specifically discuss reflective practice, they gave examples that mirrored the ability to reflect and think critically about issues in their workplace. This stimulated their thinking to alter their nursing and midwifery practice in a positive manner. One participant used the example of trouble-shooting a patient's care management with oxygen therapy:

Patients on oxygen therapy—now I can apply and know how to use it. You have to change those tubes. May be you have to give naso-tubes [nasal prongs] when the patient oxygen is low. I can change to the mask, and, if not improve, I use another type of mask. (S2, FG2)

Another participant from a separate focus group interview gave an example of their ability to manage mothers in obstructed labour differently while waiting for medical assistance:

When you are seeing the gush of blood after delivery, the placenta, first thing I remember that GHAWA told us check the uterus ... Don't run, just palpate the uterus ... can help to contract the uterus ... and when you are calling for help. Since we finish the course, we change our self and even our friend staff. Now we have good knowledge. We know what to do, and we decrease the number of neonatal and maternal event. (S2, FG5)

As a result, a sense of confidence was generated after attending CPD. This further empowered TNMs to review their practice and strive to uphold better practice.

#### 4.4.2.2.3 Confidence and Empowerment to Change

The participants acknowledged that they gained confidence from their professional development. Instead of accepting the way things were, they were empowered to be proactive and make changes in their workplace. For example:

When the course was finished, I told all staff in my unit that hand washing is very important before touching the patient. All sink and tap water is now working. Before, two taps were not running. After the training, I told them to repair it, so we can do our procedure in handwashing. (S2, FG2)

Me and the floor staff have the responsibility to bring changes. I am junior, so I told my senior in charge of the ward about the whole importance of our training, and I told them what is necessary to be done, and she listen to me and things now are working. (S2, FG2)

I will make sure that my floor staff are responsible and make sure that things like soap are ordered before we run out. (S2, FG2)

Another participant explained that their confidence enabled them to enhance their skill in supervising students. Knowledge sharing with their peers also occurred as a result:

Improvement in the supervision of students in the clinical area, and when I was demonstrating at management stage, I was very confident and I include my peers. (S2, FG4)

It was clearly reflected in the focus group interviews that the education provided to this cohort enabled the participants to examine their own skills, and gave them the confidence to improve their knowledge and clinical practice. Some additional examples of confidence derived from CPD included:

It is effective because it make us to be confident during providing some procedures. (S2, FG1)

Nowadays, we have more confidence to do things, especially for CPR [cardiopulmonary resuscitation] for the adult. (S2, FG1)

I feel very comfortable after attending the course to do my work. If I found someone not breathing properly, I can handle it effectively. It is different from the past, before

the course. When I find patient like this, difficulty breathing, I was frightened: ‘What is that?’. I then call other staff to help the patient before, but now I can help the patient. (S2, FG2)

Since the day of the course, we feel very confident to our practice. If I meet a challenge and when I go back to home, I review the notes. Then I become competent and confident to what I was having a doubt. (S2, FG6)

There has been some changes compared to the previous days when we provide the healthcare. It is very important the training for us, because it reminds us on how to provide emergency care for the patients. Because we forget some procedures on how to provide CPR, patients who are not breathing, and also I think we did procedures without using guidelines. So we gain a lot on things on how to provide health and give care to our patients. (S2, FG2)

From the newfound confidence of these TNMs, they went on to make clinical practice changes that positively affected their peers, as described in the next section.

#### 4.4.2.2.4 Motivation and Change in Practice

In addition to the positive changes implemented by the participants within their workplace, they also expressed examples of changes in their practice. The positive effects they witnessed because of their change in practice affected their morale, motivation and productivity. The participants gave examples about what they learnt from GHAWA, such as the significance of repositioning mothers during labour, rather than leaving patients lying flat on their backs. They learnt how to implement practical techniques that required no additional equipment, and only required application of their knowledge, such as getting mothers: ‘to stand up ... to squat and do simple exercises ... so the pelvic canal can open ... allow the baby to descend ... and help the baby to pass easy’ (S2, FG 5). This resulted in the NMs witnessing the following change at a particular organisation: ‘So the number of obstructed labour decreased’ (S2, FG 5).

Another NM gave a similar example, quoted below, to explain their experience of the professional development received from GHAWA. They applied what they learnt into practice and, because of others in the workplace observing their management of care for a woman in labour, their peers were motivated by the enhanced practice, and wished to learn from them. This demonstrated a flow-on effect of intrinsic motivation:



What we learn, for example, when you are doing exercise with your mothers, you feel confident, because you teach them, and they respond. They feel some difference. Even our coworkers—they want to teach their mothers how to do exercise. So everybody follow my example on how we teach their mother. (S2, FG5)

Until now, my gynaecologist in block [number], when I was learning, I was in antenatal, now I am working in labour wards. When I was in antenatal, after I finish my GHAWA program, I was always wake up the mother before ward round to do exercise. Nowadays, the gynaecologist ... is missing me: 'Where is [name]? I need exercise to mothers'. (S2, FG5)

What became evident was the development of champions of good practice and role models, as discussed in the next section.

#### 4.4.2.2.5 Role Model

Two participants raised the notion of role models, and stated that they felt undertaking CE and attending CPD enabled them to become a role model. One example indicated that the CPD has engendered collegial trust and the NM had become the 'go-to person' among colleagues in the workplace. Statements to support this are as follows:

We have to be a role model; you have to be an example to others. (S2, FG2)

I think my colleagues are trusting on me. Sometimes a staff will say, [name] has attended the wound course and they are having a problem when dressing a patient's wound, so they come to me. (S2, FG4)

The findings described in the enablers theme highlighted the factors that enabled TNMs' productivity in their workplace. This productivity provided evidence of the program outcomes. This is discussed in the following section.

#### 4.4.2.3 Evidence of Program Outcomes

The data from participants revealed positive remarks regarding CPD and the outcome of the program. The participants noted that the program was helpful in terms of education refreshing, and commented that their clinical practice transformed after attending the CE and gave them opportunities to teach their colleagues. There was also a noticeable influence on patient care outcomes and job satisfaction. One participant explained their educational perspective:

It reminded me of things which I learnt from school. So when I came here for the first time, I didn't remember some of the steps of caring for patients, and, during this course and training, it has changed me. After the training, I now know many things. For example, taking proper history of the patient, so I know what to do. I can help to relieve patient's pain. So that is some of the things I have learnt from the training. But it is a lot of things I have learnt from this training. (S2, FG2)

Some participants described the areas where knowledge enhancement and improvements were evident in their practice. For example, some noted improvements in maternal and newborn care:

We now helping mother with newborn different from before. Before we do this study from GHAWA, good experience, things that we learn from GHAWA with some we learn from our school. But we have a long time since finishing our school, so GHAWA they wake up and refresh us. (S2, FG5)

Other participants noted improvements in cardiopulmonary resuscitation (CPR) practices:

For me, I didn't know about adult CPR before. (S2, FG3)

I learn about the emergency care of patient, CPR. Before we did [CPR], but we didn't do it perfect. But after this knowledge, we are now conducting it perfectly. (S2, FG3)

Other participants noted improvements in managing a deteriorating patient:

There is improvement to resuscitation. Before we just do a few minutes, and then they are not alive, so we stop. Even management of PPH—postpartum haemorrhage. Now it is systematic. We call for help, start IV [intravenous] line, and work faster as a team. (S2, FG3)

Further, participants noted improvements in wound care practices:

Before that seminar, I never knew there are other products for dressing. You know, in this country of ours, we only have Providine, and cleaning the wound with normal saline, dressing with Providine, creams and sometimes honey. Then, after attending the course, I got to know some of the advanced material and products for dressing. We also went out to practice at [hospital name] throughout that week for a beneficial outreach intervention. Then what was very interesting to me was the style of dressing patients'

wounds by closing it everywhere on the outside. Previously, we used to put stripes across the patient's wound, and, at that time, we came across another style—closing side to side and leaving the wound just in between. (S2, FG4)

Despite the barriers identified earlier, there was evidence of the TNMs showing the ability to teach their colleagues after attending the program. For example, a participant explained:

Since we finish this refresher, we change our self and even our friend staff. After finish learning there, we came here to teach them [colleagues], to wake up them. (S2, FG5)

A participant from another focus group gave examples of their knowledge improvement in the management of maternal care:

We have gained many education. For example, for myself, I have changed my knowledge and care for mothers with shoulder dystocia from learning from GHAWA education. So I know and I am able to teach others to deliver mother with that complication and to care for mothers with postpartum haemorrhage. Also we know how to care for obstetric emergency. So GHAWA helped us to improve our knowledge. (S2, FG1)

In addition, one participant who previously attended the clinical supervision course described that, since attending this education provided by GHAWA, they applied the principles learnt in their workplace. As a result of their progressive performance, this individual has since occasionally worked as an examination supervisor, thereby demonstrating individual career advancement as an outcome of participating in the course. This was described as follows:

I learn how to give feedback from the clinical supervision course. I learn how to apply the principles, how to give strong points, and feedback. Sometimes when you get the knowledge, you get confidence. For me, sometimes I become the supervisors of exams. (S2, FG3)

Another participant explained about changing their clinical guideline regarding the insertion of cannulas. While this study did not measure how the education altered the infection rate of patients on the ward, the implementation noted below was an outcome of the CPD:

For example, about the care of IV [intravenous] line. Before the training, we would leave the cannula in-situ for seven days, but, after the training, we know we must only leave it for no more than 72 hours, three days. That is one of the big achievements. I feel very happy and I feel my patients now are safe. They will not get infection in my unit. Maybe somewhere else, but not in my unit.

#### 4.4.2.3.1 Influence on Patient Care Outcomes

The findings also identified changes in clinical practice specifically for maternal and neonatal care, which resulted in improved patient care outcomes. For example:

We have changes on healthcare of the mother and babies, especially for pregnant women and during labour—for babies, neonates, for caring the mother and how they care for their/her baby. And during labour, when there are some complications, which we make changes from the GHAWA studies. (S2, FG1)

A participant explained about improvements to manage and recognise issues during the delivery of babies and post-delivery:

We have been improving much from GHAWA education. Nowadays, we know how to examine the mothers of the delivery, we know how to diagnose babies with problem, like jaundice. When the mothers are discharged, we taught them to look for dangerous signs of their babies when the mothers go back home. (S2, FG1)

Another participant described how the education improved their ability to manage babies with asphyxia:

On my side, when their baby came, they were not breathing—baby with asphyxia. I know now how to position the baby and how to help the baby to breathe. That's why I am feeling proud. (S2, FG5)

The participants also gave examples of improved knowledge and skills related to managing emergency and resuscitation:

During the course, it taught us how to resuscitate the newborn babies. So after completion of the course, I got the knowledge and when I am now back at the ward, I know how to resuscitate the baby. Even resuscitation of the adults. So we know the difference between resuscitation of the child and adult. (S2, FG1)

This program teach us more on lifesaving skills, we know for the case of saving lives of the mother and the children. (S2, FG1)

For me, I participated in three courses—maternal and neonatal care, resuscitation and the clinical supervision course. I working in maternity block since 2012, so neonatal resuscitation is almost every day. It is our practice to do the neonatal resuscitation because we conduct deliveries. And for maternal emergency, as you know, in Tanzania, we have a lot of emergency, like postpartum haemorrhage, we have antepartum haemorrhage, pre-eclampsia. So for me it is helpful, I use the knowledge to save the life of mothers. (S2, FG3)

Participants from an organisation that provided education to nursing and midwifery students—including clinical supervision of students who were on practicum at various hospitals—gave explanations that indicated evidence of TNMs using the knowledge gained from the program related to maternal care. This demonstrated that the NMs who attended the GHAWA program were practising what they had learnt. For example:

We had learned about the exercises for the mother during labour. Because otherwise they just lay on the bed, so the labour comes very prolonged. But the exercise we have been taught have been applied in the ward. The exercises have given very good results. And also when we went to [organisation seven], it is also what they did there. I give them a discussion and told them about the importance of the exercises, and that they are no bad effects to them. It will help them because the baby in their tummy is like this and this, so when they stand to do the exercises, the baby is going to go down and, from there, you are going to have more quick, short period delivery. The mothers are appreciative for that at [organisation six], [organisation one] and here at [organisations four and five]. (S2, FG4)

Also the other mothers became very much interested with that, and those who are interested with the exercise they too start singing ... it helped them very much with their delivery. (S2, FG4)

As a result of the education and change in practices after attending CPD, the most significant finding was decreased neonatal mortality at two organisations—a large urban hospital and small rural hospital. The participants stated:

It has reduced neonatal death. It has gone down. Here, in 2013, the neonatal death was high. In 2014, at least it has gone down. I don't know about the other hospitals, but in [organisation two], it has gone down. (S2, FG1)

The course was helpful for the newborn baby. They were dying at the previous, but now after the course we study about resuscitation of the newborn, we know the standard and procedure to resuscitate the newborn. Now the death of the newborn has decreased compared with previous. Approximately, for the month was 10 [deaths]. Now we have maybe three or nothing. (S2, FG6)

Many of the aforementioned remarks highlighted that CE enhanced the participants' clinical knowledge and skills. In addition, it gave the NMs a sense of satisfaction in their work.

#### 4.4.2.3.2 Job Satisfaction

The outcomes also generated a sense of fulfilment and job satisfaction among the participants:

We feel proud ... Among the program of GHAWA, the influencing of the course has facilitated us to improve our practice. (S2, FG6)

We thank GHAWA for giving us the knowledge because it helps us to give care and reduce maternal mortality rate. (S2, FG1)

The findings from the Tanzanian cohort indicated that the outcomes of the GHAWA program were positive and effective. Most importantly, the evidence indicated that, when applied in practice, the influence of CPD resulted in reduced mortality. This was a significant finding of this study. To maintain the momentum of CPD and advance these positive outcomes, the participants were asked about how CPD can be sustainable in Tanzania. The findings are discussed in the next section.

#### 4.4.2.4 Sustainability of CPD

The final question during the focus group interviews explored whether knowledge sharing among the TNMs occurred after attending CPD sessions, and how they viewed CPD could be sustained into the future. The factors that could help sustain CPD included nurses teaching others, TNMs creating a regular schedule to provide education locally, education

materials that are up to date, support from management, and ongoing assistance from dedicated clinical education mentors. The participants' comments revealed that CPD was occurring, both in the teaching and clinical settings. The participants stated that they were applying the knowledge and using the education materials provided by GHAWA. For example:

I upgrade my knowledge and I gave my students new knowledge as well. (S2, FG4)

Some of my students who are in-services students, they also apply it in our environment. And, you know, our university is very close to these hospitals, [hospital name] and sometimes when I go to visit my students in [hospital name], I do see their nurses doing the patients' dressing in the very same style. So that workshop was very useful. We are teaching nursing students, and even for MD [Doctor of Medicine] students, they are somehow interested. They come to seek information from us. Because they usually meet with our nursing students in the clinical area, and they see the new technique from our student. So I think, even for the MD, they come together to get this new knowledge. (S2, FG4)

The participants also gave examples of allocating time to deliver CPD, and how this was provided:

Yes, we shared them, the management of our problem, and we make a program to explain what we studied at our course. (S2, FG6)

On Wednesday every week, during the morning after the report, we do 30 minutes with the others who did not attend the course. The subject is according to the curriculum which was in the course. We follow the theories according to our course; therefore, from the first one to the last one. (S2, FG6)

We make it as a point that we use the knowledge that we gain from GHAWA, and make an effort to at least teach once a week to even a few people. (S2, FG1)

However, because of their limited human resources and heavy patient workload, as detailed in Section 4.4.2.1, ongoing provision of CPD was not always possible. According to one participant:

Sometimes, we are very busy. No time to teach others, that's why, but if you have enough time, we teach others. (S2, FG5)

In addition, the participants commented that, when they were able to provide education, teaching materials would be beneficial. For example:

[We need] posters, so that you can get teach on seeing. (S2, FG5)

I think the most we need are resources. You know, when GHAWA come to us, they always come with their material. And once they go away, they leave some of the material with us, and when we have finish the resources, we have nothing ... I think GHAWA should continue and GHAWA is not only for us and other organisations. Maybe they should also discuss with our government to buy enough material. (S2, FG4)

The participants recognised that, for CPD to become sustainable in their workplace, they needed ongoing support. There was consensus and suggestions from participants specifying the continuation of education provided thus far, as well as follow-up from GHAWA:

It should continue and it should be a sustainable program. (S2, FG6)

I think make follow-up by GHAWA and between us. You have to continue and continue. (S2, FG3)

We will try to make a work plan so that we can use that to go on amongst all of us, with other colleagues, to continue teaching, with a bit of follow-up from GHAWA. (S2, FG1)

For me, I see not to remove, but to increase, so that we improve and support. Support for those people who do not know, but need to understand the course. So there is a need for the education, and to support the person. (S2, FG6)

I think to have a sustainable program is there will be continual supervision. So let's say for every two months or three months, you can supervise from one ward to the next, or one department to the next. Conduct a session about the mother and child care. This will help to sustain the program. (S2, FG6)

In addition, one participant suggested that having dedicated mentors to facilitate the provision of ongoing CPD could help sustain the delivery of CE:

Another one maybe GHAWA and the hospital management should select two or three peer group educator or a mentor, who will be known and given responsibility to conduct that. (S2, FG6)



The findings demonstrated that the TNMs wanted CPD and understood its significance. In response to the existing barriers, a pragmatic approach to staff development, such as the suggestions above, is a starting point to facilitate the sustainability of CPD in Tanzania.

#### **4.4.3 Summary of Phase Two/Stage Two**

In summary, the second and final stage of the focus group interviews was conducted in Dar es Salaam, Tanzania, with 33 NMs at seven organisations. Through using thematic analysis to explore the effectiveness and sustainability of CPD for these NMs, the key barriers and enablers of CPD were identified. The outcomes of the CPD showed that, while the participants faced numerous challenges within their workplace, they were motivated by the CPD and empowered to make changes in both their work environment and clinical practice. As a result, these TNMs expressed that there had been a decrease in maternal and neonatal mortality within their relevant organisations. For CE to be sustainable, ongoing support for CPD and dedicated mentors to continue providing education were significant points identified. This was an important finding from this stage of the study.

### **4.5 Summary**

This chapter has presented the findings from the two phases conducted in this study—the quantitative and qualitative phases. Phase two was divided into two stages, where focus group interviews were undertaken with NMs in WA and Tanzania.

During phase one, a review of the GHAWA program for the year 2013 identified data and information about the education delivered. The findings enabled the researcher to plan for the next phase of this study.

Phase two involved gaining qualitative data about the effectiveness and sustainability of CPD from the perspective of the NMs from WA and Tanzania who participated in the program with GHAWA. To progress the focus group interviews with relevant participants, this phase was separated into two stages. The first stage was conducted in WA, while the second stage was conducted in Tanzania.

A rich collection of data revealed information that was consistent throughout phase two. The findings described the two cohorts' opinions of CPD in Tanzania. The data highlighted similar themes regarding the perceived barriers identified by the WA cohort, the real barriers experienced by the Tanzanian cohort, the enablers and outcomes of CPD, and how CE can be sustained into the future. Chapter 5 presents a comparison of these findings, including how they compare with the existing literature and relevant theory.

## **Chapter 5: Discussion of Findings**

### **5.1 Introduction**

The purpose of this research was to evaluate the effectiveness and sustainability of CPD from the perspective of the NMs who participated in the CE programs offered by GHAWA. The NMs from WA who went to Tanzania in 2013 as education facilitators of GHAWA, and the TNMs who participated as education attendees of the program were the research participants of this study. The findings that emerged from the one-on-one and focus group interviews indicated themes related to the barriers and enablers for providing CPD education in Tanzania. In addition, the outcomes of the program and views regarding the sustainability of CPD in Tanzania were identified.

As described in Chapter 3, this evaluative study used quantitative and qualitative designs informed by a mixed-method approach. Two phases were implemented. Phase one was undertaken through a descriptive quantitative method, where the focus was to review and confirm the range of education programs provided by GHAWA in Tanzania during 2013. This was followed by phase two, which employed one-on-one and focus group interviews, and was divided into two stages. Stage one was completed with a selected group of WANMs, while stage two was completed with relevant TNMs.

The findings were used to describe the research participants' perceptions and experiences of CPD in Dar es Salaam, Tanzania. This chapter discusses a summary of the findings from both cohorts. A comparison of the WANMs' and TNMs' perspectives will follow, which will then be further compared with the literature.

### **5.2 CPD from the Perspective of WANMs and TNMs**

The findings from the interviews are detailed in the three subsections below. First, the opinions of the WANMs are summarised, followed by the views of the TNMs. A comparison of the findings from the two groups is undertaken towards the end of this section.

### **5.2.1 WANMs' Perceptions of CPD in Tanzania**

A total of 12 NMs from WA were identified as GHAWA educators who provided CE in Dar es Salaam, Tanzania in 2013. Of this, six consented to participate in this study. Through focus group and one-on-one interviews, the WANMs described that they were initially faced with issues related to language barriers. Although the TNMs are educated in English, the language issue was mainly limited to the NMs who worked in the peripheral areas of Dar es Salaam. This made it challenging for the WANMs to provide education. The findings also indicated that, because of a sense of disparity regarding race and resources, some of the TNMs who attended the education sessions showed initial resistance to their international counterparts. This was explained in Chapter 4.

The WANMs approached the challenge with open communication. After some perseverance, this communication process created a level of connection with their Tanzanian peers. The application of reflective practice further helped them unearth factors related to the barriers and enablers associated with CE and CPD, and the limitations in the TNMs' ability to provide best practice and CE in their workplace.

As described in Chapter 4, the initial challenges encountered by these WANMs in Tanzania were minor compared with the tough conditions in which the TNMs worked. The NMs in Tanzania were confronted by extreme lack of resources associated with staff, time and equipment. The shortage of staff, insufficient medical supplies and large patient workloads hampered their ability to care for patients in an appropriate and timely manner. These conditions further inhibited the local NMs' ability to extend themselves to provide education to their peers. The NMs were expected to facilitate the provision of CPD in their workplace within the existing structure that had no supervision and monitoring of practice to maintain standards. This was identified as a major issue that could hamper building workforce capacity and further prevent the sustainability of CPD in Tanzania.

It was also expressed that the NMs in Dar es Salaam did not have a choice about where they worked. They were regularly moved to work in different areas within their hospitals. The findings suggested that this arrangement minimised the opportunity for clinical specialisation. The findings also indicated that the TNMs had limited critical thinking skills, which suggested an area of weakness that narrowed the local staff's capacity to extend their practice.

Despite these barriers, the WANMs felt the education programs offered by GHAWA for CPD gave opportunities for local NMs in Dar es Salaam to examine their existing practices. Through reflective practice and upon establishing relationships, the enthusiasm of the local NMs amplified, and those NMs who were motivated felt empowered by their learning, and demonstrated notable evidence of positive changes that were observed by the WANMs during their short stay. While the WANMs stated that the education provided should be basic and relevant to the local context, it nonetheless gave the local NMs the confidence to make changes in their workplace, including to their own clinical practice. Role modelling and a commitment to ongoing support of CPD to reinforce practice were further perceived as significant elements to create sustainable change from the perspective of WANMs.

### **5.2.2 TNMs' Perceptions of CPD**

Based on the quantitative findings, a retrospective review of the data showed that 129 NMs from eight organisations in Dar es Salaam, Tanzania, attended CE provided by GHAWA in 2013. These organisations comprised two teaching institutions and eight healthcare services. The focus group interviews conducted in Dar es Salaam with this cohort occurred in December 2015. As per the sampling process described in Chapter 3, 33 NMs from seven (of the eight) organisations participated in this study. The reason for conducting interviews with this cohort was to ascertain their personal experiences and perceptions of the CPD that was offered to them by the WANMs.

The TNMs described the extreme shortage of staff, lack of equipment and heavy workload of 'many sick patients' as the major issues limiting them from attending CPD sessions. However, they were keen and motivated to learn and impart their learning gained from CPD with their peers. As a result of the situation in their healthcare system, they could not always afford the time 'to do more' than give care to their patients. To them, attending and providing CPD was secondary to their clinical role. Moreover, access to CPD was limited or unavailable in some organisations. However, despite these hurdles, they recognised the importance of CPD, particularly in relation to understanding how to use medical equipment appropriately and provide best practice in nursing and midwifery. The majority wished to learn and valued education. A small number of participants stated that financial and food incentives, such as refreshments, could enhance the rate of staff attending education sessions.

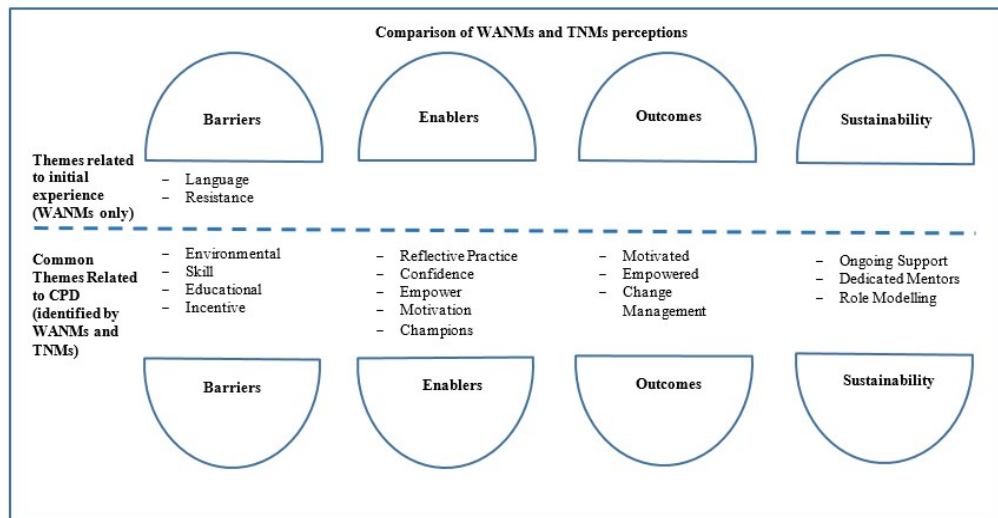
Given that all the participants of this study had previously attended CE provided by GHAWA, prominent and positive effects on the individuals and their practice were evident in this study. Various examples were given in Chapter 4, which demonstrated that CPD gave the TNMs the tools to think critically about their practice, manage the available resources in their unit more effectively, demonstrate the confidence to question, apply necessary skills and changes in their workplace, and initiate practices that required no additional cost or resources (such as performing CPR correctly and implementing best practice in their delivery of nursing and midwifery care). The participants stated that they were empowered, proud and motivated because they saw a tangible difference in their patients' outcomes. As a consequence of applying the knowledge and implementing best practice gained from the education, they witnessed reduced mortality at their respective organisations, such as in the area of maternal and neonatal care.

With regard to the issue of sustaining CPD into the future, the participants raised the need for ongoing support and supervision at ward levels. They felt that the CE sessions provided by GHAWA were essential and 'should continue'. As described earlier, because of the challenges faced by these NMs, their capacity was limited based on how much they could physically achieve in their workday. They suggested that dedicated personnel—identified in collaboration with the hospital management and GHAWA as 'peer group educators and mentors'—could be an important way of enabling staff development so that NMs' capacity building and professional development could become sustainable.

### **5.2.3 Comparing Both Cohorts' Perspectives of CPD and its Effect on Nursing and Midwifery Practice in Tanzania**

The interviews with the WA cohort, followed by the Tanzanian cohort, enabled a rich understanding of these NMs' perceptions and experiences of CPD in Tanzania. Consequently, a comparison of both views was undertaken. This eliminated any bias from a one-sided view, and removed any generalisations about what NMs from developed nations perceive CPD to be in developing nations, versus the real experience of those living in a developing nation, such as Tanzania. Four common themes related to CPD emerged from analysing the interviews with the two cohorts: barriers, enablers, outcomes and sustainability of CPD. While the two cohorts had different roles—as education facilitators and attendees—the findings identified some external factors under the barriers themes that were unique to the WA cohort's experience. Nonetheless, the Tanzanian

cohort shared similar views to those expressed by the WA cohort. This section compares the findings for each theme.



**Figure 25: Themes of CPD in Tanzania—WANMs’ and TNMs’ Perceptions**

### 5.2.3.1 Barriers

Insufficient resources related to staff, basic medical equipment and heavy patient loads were overwhelming issues that emerged from the findings of both cohorts. These were seen as environmental barriers that restricted the TNMs’ ability to provide safe and best practice. Dire issues—particularly a shortage of staff and disproportionate staff to patient ratio—were major barriers that restricted the time that TNMs had to attend, prepare and present CE within their organisations. In some smaller hospitals, such as those in rural areas, CPD was not readily available for staff to attend.

Meanwhile, the WANMs voiced a different set of challenges that were unique to them, as educators and foreigners providing education in Dar es Salaam. Language barriers and resistance from some staff were described as the initial barriers. However, through open communication and perseverance, these issues were quickly overcome when relationships were forged with their peers in Tanzania. The other barriers identified were associated with limited skills and understanding about best practice. The TNMs who had a good command of the English language assisted their fellow course participants by translating and clarifying aspects of the education in Kiswahili. However, this occurred mainly in the peripheral settings.

In addition, among a very small number of TNMs, monetary incentive was raised as a factor that could affect the attendance of CPD, with more NMs potentially attending if this was available. Some viewed this as a barrier to CPD, and felt they should be paid to participate in CPD. This is a debatable topic. GHAWA did not provide remunerations, but provided refreshments for people attending CE. To ensure ease, affordability and accessibility for all health professionals, including NMs, this education was provided free of charge at various local organisations. Although no financial incentives were provided for participating, considering the study in its entirety, the outcomes and influence of CPD on staff development and patient outcomes demonstrated that the benefits of CPD outweigh the issue of remuneration. The majority of TNMs did state that they attended CPD because they recognised their need for skill and knowledge improvement.

#### *5.2.3.2 Enablers*

The implementation of reflective practice by the WA cohort indicates that the process encouraged TNMs to pause and reflect on their existing situation. This enabled individuals to evaluate and refocus their thinking about their practice, and the TNMs later confirmed that this strategy cultivated critical thinking abilities. Ongoing support is necessary in this area, particularly because it was seen as a new concept to reinforce learning and practice.

Clearly evident throughout the analyses and findings of both cohorts was the vast need and call to continue the delivery of education. As a result of the barriers discussed in the previous theme, NMs who worked at various organisations in Dar es Salaam did not have regular access—and in some cases had limited to no opportunity—to attend CE locally. Consequently, one of the key enablers for accessing CPD was the increased availability of CE made possible by GHAWA. Individuals who were motivated was an important attribute and asset to be ward ‘champions’. These NMs were good role models who demonstrated the ability to influence and empower others through facilitating knowledge and clinical practice enhancement. Changes in practice resulting in positive outcomes were confirmed by the participating NMs in Tanzania.

The findings also indicated that there were good intentions to provide CPD and that organisational education programs were planned at most local hospitals. However, this did not always occur because of their existing limitations. As a way forward, both cohorts



stated that fundamental to enabling CPD locally is a structured staff development initiative delivered by designated local staff, who also have the dedicated time to fulfil such duties. While such an initiative could take some time to achieve, collaboration between local organisations and GHAWA (in the case of this study), as well as ongoing support and supervision of NMs, are significant enablers to continue provision of CE in the short to medium term. This would also facilitate the development of a more confident workforce.

#### *5.2.3.3 Outcomes of CPD*

The effects of CPD identified in this study showed that it resulted in a confident, motivated and empowered group of TNMs. By fostering critical thinking, one of the biggest outcomes was the change management that occurred in the NMs' clinical practice and workplace. For instance, they recognised how best to conduct CPR and be competent in their nursing and midwifery practice, including the appropriate use of medical equipment, ensuring hospital fixtures were repaired, and using best practice when giving care. In addition, the NMs witnessed an astounding direct effect and change in outcomes for their patients. The TNMs were proud of their efforts, stating a reduction in mortality incidents of mothers and babies in their respective organisations. This was a major outcome regarding the effect of CPD.

#### *5.2.3.4 Sustainability of CPD*

This evaluative study showed that the education programs offered by GHAWA for TNMs were effective. As discussed in the earlier themes, the NMs were generally keen, motivated and empowered, and understood the importance of CPD. The need for ongoing support was raised on numerous occasions as essential to sustaining professional development and to 'give good care' (best practice) into the future. While the intention and momentum exists to continue the delivery of education by local NMs in Tanzania, it was not apparent whether monitoring and maintenance of practice and standards of NMs exists. For the reasons noted in the barriers theme, there was also a lack of designated staff that could provide CE locally—not because the NMs did not want to, but simply because they could not afford the time because of the complex issues faced in the workplace. Thus, CPD in Tanzania is not sustainable in its present form. As such, a robust organisational structure that has dedicated staff (such as 'peer group educators/mentors')

and time allocated to support the ongoing provision of education and manage staff development is fundamental to ensuring the sustainability of CPD within these organisations. This was the crux of building the capacity and capability of the nursing and midwifery workforce in Tanzania, thereby highlighting the potential to sustain CPD.

#### **5.2.4 Section Summary**

Section 5.2 has summarised a discussion of the findings from the interviews undertaken in this study. Many of the perceived views identified by the WA cohort regarding CPD in Tanzania were deliberated and confirmed by the Tanzanian cohort. Central to this study, the next section discusses and compares with the literature common topics about workplace constraints, matters related to CPD and the changes that resulted from CPD.

### **5.3 Comparison of Findings with the Literature**

A review of the existing literature found there were similarities and gaps between nursing and CPD in Tanzania. This section compares the study findings with the literature, focusing on specific information relevant to the research topic and how this study fits within the established knowledge. The discussions covered in this section include:

- the *workplace constraints* found to be a major barrier
- the significance of *CPD and CE* in developing nations
- *reflective practice and critical thinking* as enablers from an international context
- *change management* and its sustainability.

#### **5.3.1 Workplace Constraints**

Acute and persistent issues related to insufficient medical equipment, unreliable supplies, extreme staff shortages resulting in an inadequate ratio of health workers to patients, its effect on skill mix, inadequate skills and clinical knowledge are apparent in hospitals across Tanzania and Sub-Saharan Africa (Kaaya et al., 2012; Kwesigabo et al., 2012; Shemdoe et al., 2016). Major cutbacks of resources were experienced in Tanzania during the 1990s, and, according to Kwesigabo et al. (2012), this adversely affected health training institutions and skills development for human resources in Tanzania's healthcare system. Consequently, there was a workforce crisis, which caused a critical shortage of staff and workplace challenges across various levels of health service delivery around the

country. Leshabari et al. (2008) stated that health workers in Tanzania, including NMs, often face the limited availability of protective gear and safety equipment that safeguards them from infectious disease. These workplace constraints have also generated discussions regarding the detrimental effect on the recruitment and retention of staff, and the morale of health workers (Leshabari et al., 2008; Shemdoe et al., 2016).

A study of 29 RNs in Tanzania by Haggstrom et al. (2008) indicated that, because of understaffing, work overload and the difficulties faced on a daily basis, Tanzanian nurses were suffering from workplace distress and ethical dilemmas. They identified that, irrespective of whether good care was provided, patients' survival was dependent on what resources were available in the given situation. According to Haggstrom et al. (2008), the prioritisation of care in some instances is based on patients' societal status, where care is provided to the wealthy, rather than the poor, because they can afford to pay for healthcare. They also found that CE was not available to nurses, which meant they could not keep up with contemporary knowledge developments and provide proven methods of care to their patients. These challenges triggered feelings of discomfort and job stress. Similarly, in the current study, the WANMs' interviews revealed findings regarding workplace limitations that led to the TNMs experiencing an internal level of distress. While the scope of this study did not include an examination of workplace distress, the overall findings, including environmental workplace constraints, fit within the established study by Haggstrom et al. (2008).

Kitua, Mashalla, and Shija (2000) argued that these constraints are among the top issues faced by health services in Tanzania. This is even more difficult in rural health sites, including dispensaries and small health centres, where water supplies are unreliable or unavailable, and poor sanitation is regularly encountered (Kahabuka, Moland, Kvale, & Hinderaker, 2012). Consistent with the barriers identified in the current study, one research participant (post-CPD participation) explained their initiation and discussion with their manager about repairing several sinks and taps that had not functioned in their unit for some time. They needed to be repaired so that hand washing and infection prevention and control could be ensured. This finding highlights the difficult situation NMs face in Tanzania. NMs in developed nations take for granted that the basic fixtures, utilities and mechanical services of any healthcare facility should be functional and regularly maintained.

All the workplace constraints combined have major implications for Tanzania's healthcare system, increasing the burden and overwhelming the capacity of the NMs working in these settings. However, not all problems are insurmountable. As demonstrated in the above research finding, the analogy about repairing taps at a unit in one Tanzanian organisation showed that the participant who attended CPD understood the significance of hand hygiene and infection prevention, and was empowered to initiate change in the workplace. The old saying that 'knowledge is power' was true in this regard. The NMs who continually developed through knowledge acquisition from CPD demonstrated the ability to be empowered and achieve positive results. To this end, the next section describes the extent of research regarding CPD in developing nations, such as Tanzania.

### **5.3.2 CPD and CE**

CE is central to enhancing the CPD of NMs (ANMC, 2009; Dickerson, 2010; NMBA, 2010). CE is well recognised as an essential element to developing a skilled workforce, advancing practices and achieving health outcomes (Hosey, Kalula, & Joachim, 2016; International Confederation of Midwives, 2014; International Council of Nurses, 2012; WHO, 2016). As discussed in Chapter 2, CPD is a continual process, where developments are contingent on each individual's area of interest. Knowledge and skills development gained through support and ongoing commitment facilitates the understanding of best practice. This results in the ability to give quality care, and contributes to the wellbeing and health outcomes of patients. As illustrated in Figure 2, the continual process of CPD and education promotes professional development (Aiga & Kuroiwa, 2006; Gallagher, 2007; Manzi et al., 2012).

In the current study, NMs in Tanzania who attended CE provided by GHAWA identified a serious need for CE in their workplace to improve their clinical practice and help save lives. Based on the CPD and education process model (Figure 2), using the knowledge and skills gained through ongoing support and commitment enabled practical changes to be made to their clinical practice. These NMs were able to give quality care and witnessed life-changing outcomes in their patients. Psychologically, this also created a strong sense of empowerment and boosted morale. However, to sustain this, it is vital to gain system-related support from the government and health administrators to ensure the stability of providing CE locally. This can occur through a centralised approach, by coordinating

hospital and region to form a centre of excellence with designated nursing positions responsible for staff development education, including ‘train the trainer’ concepts. Campbell-Yeo et al. (2014) supported this argument when examining the educational and clinical practice of nurses caring for sick neonates in India, and recommended the establishment of a similar goal. Campbell-Yeo et al. stated this would lead to streamlined management of resources, and, through developing nursing expertise, would improve outcomes.

Another study examined health workers’ motivation in rural health facilities by assessing the underlying issues that affected staff’s level of motivation in their provision of health services in Zambia (Mutale, Ayles, Bond, Mwanamwenge, & Balabanova, 2013). The research consisted of 96 participants, including nurses (the majority), clinical workers, health technicians and untrained workers who attended to patients daily. The Zambian health context shares the same challenges as Tanzania, including shortage of healthcare human resources, poor pay, stress and work overload. One of the critical findings Mutale et al. (2013) highlighted in their study was that health workers who had attended education or training of some form in the preceding 12 months of working in the facilities showed higher motivation scores than did those workers who did not attend any training. This supported the notion and need for continuous ‘systematic refresher training’ as a course for skills enhancement and motivation (Mutale et al., 2013, p. 7). A key aspect of health performance is related to staff who are motivated. This is reinforced by the WHO (2016) emphasis on the need to develop capable, motivated health workers.

Given the shortages of NMs in Sub-Saharan Africa and Tanzania, Shortell and Kaluzny (2006) suggested that it is highly desirable to develop ways to improve knowledge and skills without removing staff from the workplace. A qualitative study with midwives in Mozambique further highlighted that all CE provided should be relevant to the local settings and resources (Pettersson, Johansson, Pelembe, Dgedge, & Christensson, 2006), thereby ensuring that the content and context are meaningful and appropriate to the educational needs of the health workers. This is supported by the Tanzania MoHSW (2003) in its policy document, *Strengthening Continuing Education/Continuing Professional Development for Health Workers in Tanzania*. While there are good intentions to strengthen CPD, the practicality and gaps for health workers (including NMs) to access locally available CE remain problematic.

Kaaya et al. (2012) reported that Tanzania lacks a formal system for CPD. Once health professionals are given their licence to practice, individuals are not required to update or improve their skills or knowledge. This adversely affects the professional standards, health workers' motivation, and health outcomes of the population. To improve NMs' performance in providing safe and competent care, in 2014, the TNMC issued national CPD guidelines for NMs in Tanzania. The document promotes CPD as a lifelong learning journey for professional growth and career progression (TNMC, 2014). The National Council stipulated that employers of public and private institutions, including healthcare settings, in Tanzania are obligated to provide, support and sustain the provision of CPD for NMs. This is a positive step in promoting and encouraging CPD across the country; however, more work is still required in this area. In 2014, in its strategic plan, the Tanzania MoHSW acknowledged that the concept of CPD was not adequately emphasised and integrated in the healthcare system. It also stated that a culture of lifelong learning was not instilled in health workers, including its significance into the future for individuals' practice and career development. The document further highlighted that, while some health workers have attended additional CPD training, it is not uncommon to find staff who have not attended CPD for five years or more. There is also little follow-up to establish the issue of performance and the effects of CPD training (MoHSW, 2014).

Previous literature findings and the findings of this study indicate that limited opportunities and barriers for NMs to access CE continue to be an issue in Tanzania (Kaaya et al., 2012; Prytherch, Kakoko, Leshabari, Sauerborn, & Marx, 2012; Tanaka, Horiuchi, Shimpuku, & Leshabari, 2015). This concern is also shared in other parts of Africa, such as Madagascar, Kenya and Lesotho. However, CPD is of growing interest across Sub-Saharan Africa, and various efforts have been undertaken to support CE, including collaborations with benevolent aid agencies around the world.

The WHO (2016) asserted that a well-supported and regulated nursing and midwifery profession can transform health actions and healthcare delivery. NMs play a critical part in strengthening the health system and, within the recently released WHO document, *Global Strategic Directions for Strengthening Nursing and Midwifery 2016–2020*, CPD and collaborative partnerships to maximise NMs' capacities and potentials are considered an integral approach to strengthen the profession. In short, CE enhances the CPD of NMs (International Confederation of Midwives, 2014; International Council of Nurses, 2012;

WHO, 2016). The yielded benefits for staff and ultimately patients are significant, and this notion is widely accepted. However, CPD's sustainability in Tanzania will require significant coordinated efforts by the government, regulatory bodies, hospitals and training institutions to reform the staff development of NMs in Tanzania. As identified in this study, investment in designated staff who are good mentors can enable accessibility to CE in the work environment. Fostering NMs' reflective practice and critical thinking skills will also add value to the overall workforce's capacity and capability, as further discussed in the next section.

CPD sustainability can be enhanced by system-related support, including considerations for a centralised approach to access CPD locally by region and hospital, the prospect for career progression, and equitable remuneration (Campbell-Yeo et al., 2014). However, in the context of this study, the word 'remuneration' must not be confused with 'per diem'. The notions of appropriate remuneration that leads to career progression, versus per diem to attend CPD or education and training of any form, are separate and different. While both are associated with monetary incentives, recent studies have raised questions regarding the sustainability of international development project interventions and the ongoing provision of per diem. Ridde (2010) stated that per diem arose in the 1970s, when the growth of development aid started, and it was introduced mainly out of the motivation to ensure activities would occur. The pervasive use of per diem in certain countries—such as Malawi, Mali, Mozambique, Nigeria, Tanzania and Ethiopia—has become entrenched and expected in these societies, thereby creating a per diem culture that is harmful to healthcare organisations in Africa (Ridde, 2010; Skage, Soreide, & Tostensen, 2015). An obstacle for international development program in recent instances has been how to counter the pitfalls connected with per diems to incentivise participation.

Some of the comments and findings in this study showed that payment to attend CPD could increase the rate of participation. As previously discussed, this raises questions about the quality of people attending CPD sessions and their motivation for participation. A study by Sanner and Saebo (2014) in Malawi regarding the implementation of an information and communication technology project showed that the use of per diem and its expectation had a negative effect on the long-term capacity building and sustainability of project efforts. Not only can this quickly erode access to international donor's funding, but this approach also attracts the wrong people to attend workshops and training sessions

(Sanner & Saebo, 2014). Instead, to strengthen local institutions' capacity, Sanner and Saebo (2014) recommended creating partnerships with ministerial officials, such as the Ministry of Health, to establish a shared pool of resources (including financial resources), and prioritising short-term projects over long-term restructure to achieve set goals. This achieves capacity building and sustainability in the longer term, beyond the lifespan of the international development project.

### **5.3.3 Reflective Practice and Critical Thinking**

The concept that reflective practice improves critical thinking has been around for decades. Aspects of reflective practice foster the idea of rational thinking (Bulman & Schutz, 2013) and learning through reflection (Sherwood & Horton-Deutsch, 2012). The ancient Greek philosopher, Aristotle, initiated this notion of practical wisdom, and, in the 1980s, philosopher Donald Schön influenced the development of reflection in professional education (Sherwood & Horton-Deutsch, 2012). There is a growing body of knowledge about reflective practice, critical thinking in nursing, and the facilitation of students' learning through reflection. While the concept is not new, there is a dearth of published literature about the effect of this pedagogical approach on NMs in developing nations (Kabuga, 1977; Mangena & Chabeli, 2005; Thompson, 2010).

Reflective pedagogy is a learning tool and way of guiding learners' thinking to develop autonomy, critical thinking, practical understanding and open-mindedness (Caldwell & Grobbel, 2013; Sherwood & Horton-Deutsch, 2012). It enables learners to build upon their clinical experiences and develop knowledge, so they can become fully aware of issues in their clinical environment, such as safety (Sherwood & Horton-Deutsch, 2012). A literature review of studies between 2001 and 2012 by Caldwell and Grobbel (2013) indicated that nurses who reflected regularly had a better understanding of their actions, which consequently developed their professional skills and enabled better nursing care. The emphasis leads to health staff thinking more about safe practices, thereby creating a safe environment for their patients and peers. Thus, reflection is an implicit and essential skill in professional nursing practice (Sherwood & Horton-Deutsch, 2012).

It was evident in the current study that the WANMs did not even think about the concept of reflection until their time in Tanzania, where they felt that the TNMs' critical thinking abilities were lacking. This implied that the WANMs used reflection as a normal and



habitual part of their practice. They assumed that what they knew was obvious to other nurses and required no consideration (Price, 2015). Their application of reflective practice, which was then applied as part of the CE process in Tanzania, indicated that the TNMs responded positively with motivation, confidence and empowerment. As a result, it heightened their critical thinking ability. The WANMs also gained insight about how to improve the TNMs' practice and clinical environment, which was later confirmed by the TNMs. This showed that reflection has the potential to augment NMs' practice development. Gustafsson and Fagerberg (2004) supported this view in their qualitative study, where four RNs were interviewed with the aim of determining the nurses' experiences of reflection, and its relation to nursing care and professional development. The results showed that using reflection as a tool stimulated courage and empowered these nurses to meet the needs of their patients. The nurses in the study felt that 'reflection allowed them to develop and mature professionally' (Gustafsson & Fagerberg, 2004, p. 276). Reflective practice provided these nurses the opportunity to learn from their reflection, and further enhanced their capability to teach others (Gustafsson & Fagerberg, 2004).

A Tanzanian study by Haggstrom et al. (2008) also supported the idea of reflection. The study reviewed 29 Tanzanian nurses' written responses to questions. The aim was to gain insight to the nurses' views of workplace distress and ethical dilemmas in Tanzanian healthcare. The results indicated that these nurses felt their work was filled with difficulties, and that they were suffering from work-related stress while trying to maintain good-quality care. The conclusion indicated that better equipment and support for staff were required. It also determined that, to minimise stress overload, it was vital to guide Tanzanian nurses to gain insight and be able to reflect on their situations. This study did not specifically consider reflective practice, yet suggested that reflective practice has a role in supporting nurses to cope with their daily work.

In another study, Bulman, Lathlean, and Gobbi (2012) used an interpretive ethnographic approach to examine the concept of reflection from the perspective of nursing students and teachers in the United Kingdom. The students reported that the process of reflection nurtured a deeper level of thinking, which led to changing and improving their practice. The opportunity to think critically helped develop their self-awareness in recognising their limitations. As their confidence to question their practice grew, they became

comfortable in their role and were better able to face the challenges in their clinical practice (Bulman et al., 2012).

These studies consistently show that reflective practice can improve nurses' critical thinking ability, and one of the ways to achieve professional development is through reflection (Bulman et al., 2012; Caldwell & Grobbel, 2013; Gustafsson & Fagerberg, 2004; Haggstrom et al., 2008; Sherwood & Horton-Deutsch, 2012). Encouraging nurses to reflect on their practice stimulates recognition for a call to action that ultimately promotes better nursing care (Bulman et al., 2012; Gustafsson & Fagerberg, 2004). As a result of this action, a change or transition occurs, as shown in this study. This leads to the subject of change management, as discussed in the following section.

### **5.3.4 Change Management and Sustainability**

Change management in general is a topic widely discussed in the literature (Crossan, 2003; Scott, 1999; Shanley, 2007; Stonehouse, 2012). Change management from a nursing professional context and organisational perspective is often explored separately (Bellman, 2003; Murphy, 2006; Shanley, 2007; Stonehouse, 2012); however, these are interrelated. From a broad holistic sense, the performance of a healthcare organisation, for example, is complex and reliant on multifaceted factors, some of which include the health facilities and healthcare workers' practices and services in the organisation. For the purpose of this study, this section explores organisational learning and the people within the organisation as the driving forces of change through education and training.

Organisational learning is the development of collective education that affects an organisation's operation, performance and outcomes (Ratnapalan & Uleryk, 2014). Kirwan (2013) purported that this is linked to the area of human resource development and adult education. In 1978, Chris Argyris and Donald Schön who began to develop the concepts of learning, described the concept of organisational learning as a knowledge translation phenomena that involves individual and team learning in the workplace, including experts and novices from diverse backgrounds (Gagnon et al., 2015; Ratnapalan & Uleryk, 2014). This social process of knowledge sharing can result in organisational change (Ratnapalan & Uleryk, 2014). From a nursing practice perspective, a case study of eight Canadian nurses by Gagnon et al. (2015) posited that an organisation committed to learning created a culture of learning among nurses at work. In this study, novice nurses

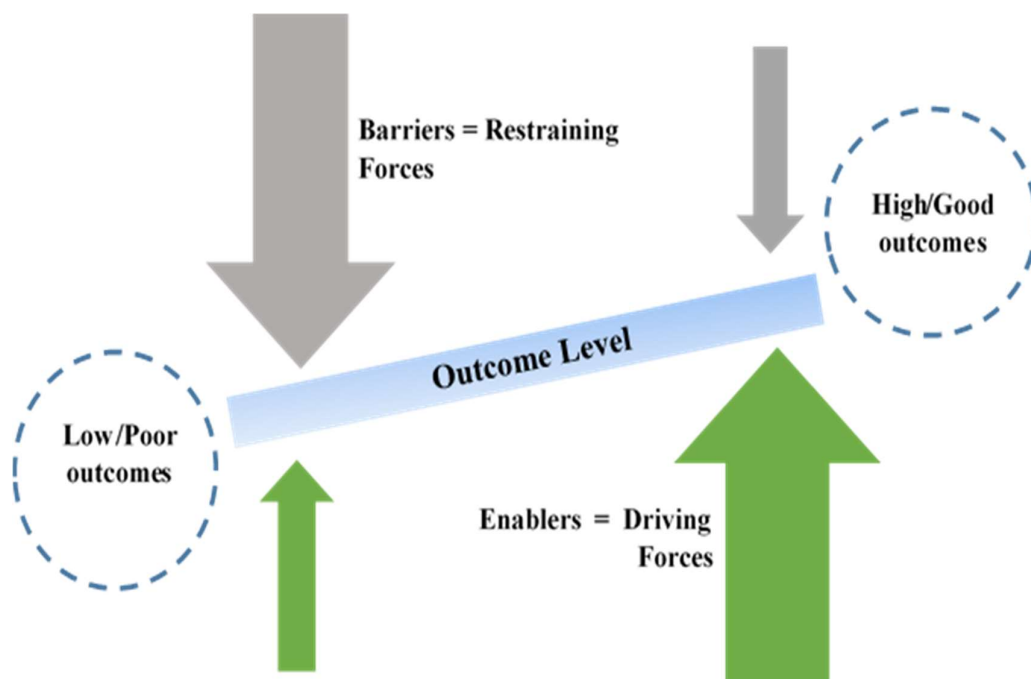
were paired and supported by experienced colleagues in their specific field. Gagnon et al. (2015) explained that this was done to enable knowledge transfer of their work. Routine assessments of the novice nurses' practice were further undertaken by nurse-educators to ensure standards were maintained and to ascertain their integration of knowledge progression and acquisition. Ratnapalan and Uleryk (2014) added that the performance and action of staff in such organisations improves safe patient care.

On reflection, while the NMs in Tanzania did not have nurse-educators to routinely support and maintain their professional development in the workplace, the support of the WANMs offered by GHAWA provided evidence that the TNMs who participated in CE changed and improved their practice. One of the key findings indicated that this change resulted in reduced maternal and neonatal mortality incidents. However, the gap is the question of sustainability and, as demonstrated in the findings, ongoing support with the prospect of 'dedicated group educators/mentors' is proposed. Gagnon et al.'s (2015) example offers a potential strategy to the issue experienced in Tanzania. It seems that the driving force of NMs who are keen to make positive changes in their practice, coupled with organisational support, could lead to sustainable changes in CPD. This strategy would also help maintain sustainable outcomes and performance in the organisation. Frost (2010) advocated that this increases the effectiveness and efficiency of healthcare providers and organisations.

The nursing literature regarding organisational learning supports the importance of CPD and better knowledge management in healthcare (Gagnon et al., 2015; Hovlid, Bukve, Haug, Aslaksen, & von Plessen, 2012). Berta et al. (2015) postulated that this organisational learning framework has the potential to encourage higher-order learning and to sustain modest adaptations to work routines and processes within organisations. Ratnapalan and Uleryk (2014) noted that managing the learning requirements to execute functions and transferring the flow of information will ultimately enhance patient care. Collectively, as an interconnected system, education and learning should occur at all levels in the healthcare system, including the individual, team, inter-professional and organisational levels. The application of this concept in the context of NMs specifically suggests that it can facilitate shared knowledge and experience over time, where changes are more likely to be sustained (Hovlid et al., 2012). This can be further enhanced by motivated nursing educators. The findings in the current study specifically indicated that

the WANMs, as enablers of CPD and adult education, were pragmatic and open in their approach to support their learners. Bahn (2007) noted this to be a desirable attribute, as it enriches the effectiveness of the teaching and learning interaction. Educators with a fundamental understanding of lifelong and adult learning could provide support and help reduce barriers to learners' participation in a challenging environment (Bahn, 2007).

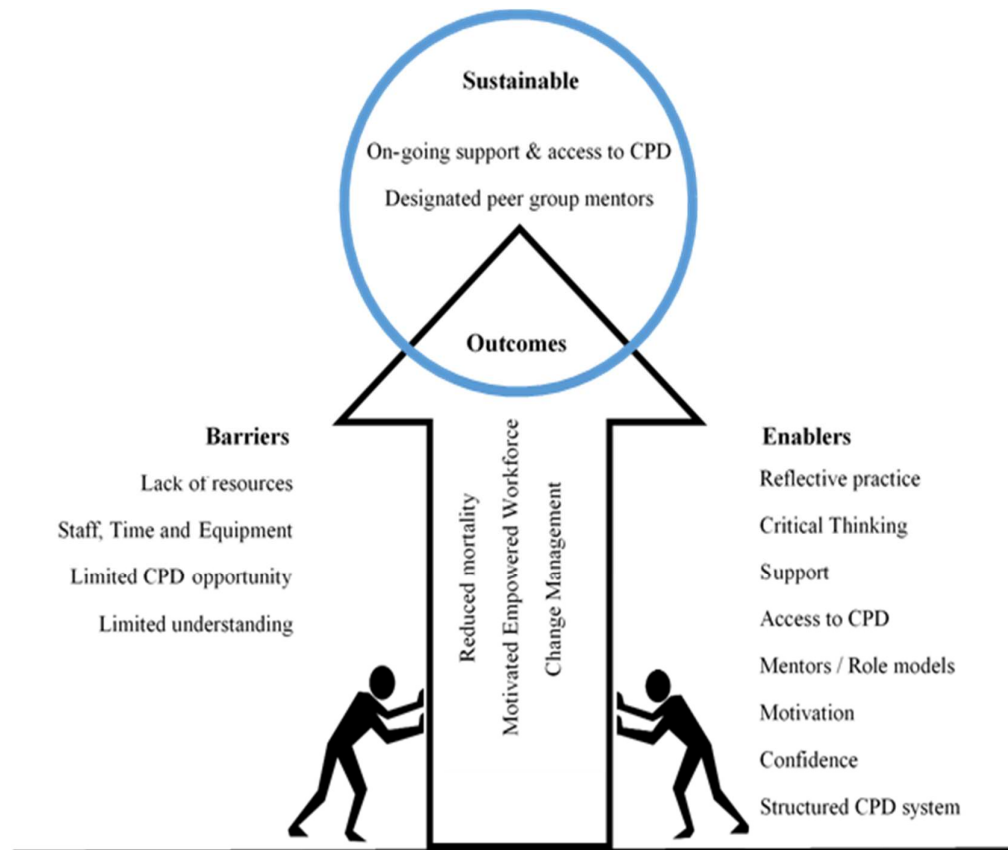
Change is a common feature of any organisation. It requires the open-mindedness and flexibility of individuals at all levels to foster a sense of unity and team learning (Bellman, 2003; Murphy, 2006; Scott, 1999). Trofino (1997) stated that this helps people cope with the change, and shifts the paradigm to avoid reverting to the old practices. After all, change is only positive if it can be maintained. Central to the process of change, the model of organisational change can be traced back to Kurt Lewin's 'force field analysis' (Connolly, 2016). Lewin used the concept of a push between two opposing sets of forces—driving and restraining forces—that directly affect outcomes. The driving force (enablers) is said to promote change, while the restraining force (barriers) attempts to maintain the status quo and is an obstacle to change. Lewin proposed that, whenever the driving forces are stronger than the restraining forces, the existing situation will change (Connolly, 2016). See Figure 26 for a simplified illustration of this model.



**Figure 26: Kurt Lewin's Force Field Analysis (Adapted from Connolly, 2016)**

Baulcomb's (2003) study explained that introducing Lewin's force field analysis in a busy haematology unit in the United Kingdom successfully changed a small-scale staff allocation to accommodate an increased number of patients with no additional cost. This was achieved by removing key obstacles within the existing rostering system (barrier), and helping staff increase their clinical skills and understand their role (enabler). This empowered the staff to think, organise and plan for themselves (outcome). The staff also became more focused on their job.

In the case of the current study, the researcher argues that there are merits to applying Lewin's force field analysis concept to help sustain CPD in Tanzania. While this theory was beyond the scope of this study, the findings thus far mirror Lewin's force field analysis, whereby the enablers identified in the study could serve as the driving forces, while the barriers fit within the restraining forces. In this instance, CPD altered the status quo to generate positive outcomes and identify significant results, such as reduced maternal and neonatal mortality. The goal of manifesting sustainability is to help stabilise the equilibrium, which, in this case, is to have ongoing support and develop 'dedicated peer group educators/mentors' to progress CE, thereby creating the opportunity for local sustainable change into the future. Figure 27 illustrates this study, based on Lewin's force field analysis.



**Figure 27: Illustration of Findings for This Study, Adapted from Lewin's Force Field Analysis**

## 5.4 Limitations of this Research

The main limitation of this study was that the NMs came from within one region of Tanzania (Dar es Salaam) and that only those who participated in the GHAWA program at seven public and private organisations located in urban and rural Dar es Salaam were interviewed. There are 30 regions in Tanzania; as such, caution should be taken when generalising the findings to other regions across Tanzania.

Another limitation was that the researcher found that published sources of information and studies related to CPD in developing countries, including Tanzania, were limited. Thus, to be informed by the lessons learnt in this study, it was necessary to rely on comparisons with information from developed nations.

Finally, this study evaluated the effect of CPD for TNMs from the perspective of those NMs in WA and Tanzania who participated in the GHAWA program. However, it did

not link the findings identified (barriers, enablers, outcomes and sustainability) to an established theory. This was not within the scope of the current study. Thus, it is recommended that this topic be examined further, using different types of theorists to understand its causal link to change.

## **5.5 Summary**

This chapter has presented a comparison of the findings from both the WA and Tanzania cohorts. The common areas were then compared with other findings from the literature. The severe shortage of human resources, lack of medical equipment and restricted access to CPD were commonalities identified in the literature that indicated reasons as to how and why hospital staff's ability to provide best practice and quality care in developing countries is hampered. Various studies undertaken in developing countries have emphasised the need for inter-project collaboration among healthcare organisations, the government and international development programs to strengthen the capacity of the workforce and progress sustainable change in the longer term.

This study contributes valuable information to the current body of knowledge about CPD and its priorities to help sustain CE in Tanzania into the future. The findings also offer insights for health service managers, hospital administrators and the MoHSW when developing strategies to enhance CPD and potentially implement a staff development model in Tanzania's healthcare organisations. As a way forward that considers sustainable outcomes for NMs and relevant healthcare systems in Tanzania, the knowledge gained from this study can recommend a staff development CPD model for NMs in Tanzania—one that can support capacity building and sustain the NM workforce to become an effective and efficient component of the Tanzanian healthcare system. Chapter 6 discusses the implications of this study and presents recommendations for supporting CPD, including the future staff development of NMs.

## **Chapter 6: Conclusions and Recommendations**

### **6.1 Introduction**

This study has generated new and more in-depth understandings of the effectiveness of CPD, and strategies to sustain it into the future, from both a Tanzanian and international development support context. By attaining the perceptions of the NMs from WA and Tanzania who participated in the GHAWA program, it was possible to compare the views of the Western educators and Tanzanian participants of CPD. The mixed-methods approach applied in this study resulted in identifying the barriers faced by these participants in the healthcare setting, and the limitations to providing CE in their workplace. Meanwhile, the outcomes of the GHAWA program and suggestions regarding the suitability of CPD in these health organisations were also determined as enabling factors for ongoing education. The one-on-one and focus group interviews with both cohorts allowed this study to describe the research participants' views about CPD in Dar es Salaam, Tanzania. This concluding chapter outlines the key findings generated from this study, and discusses their implications for clinical education, practice development, health organisations and research.

### **6.2 Salient Features of the Study**

The overview of relevant literature demonstrated that CPD and CE play a significant role in enhancing NMs' knowledge and skills. This is widely acknowledged among studies in both developed and developing nations, including Tanzania (Kwesigabo et al., 2012; Nartker et al. 2010; TNMC, 2014; Leshabari et al., 2008). Studies have also indicated that the shortage of human and medical resources for healthcare affects health workers' clinical practice and performance. To address these challenges, efforts to train and educate health workers through CPD would guide the delivery of safe and competent care, and strengthen NMs' professional growth. However, prior to this study, little evidence-based research was available about the effectiveness and sustainability of CPD in Tanzania.

The findings of this study indicated that, as a result of participating in CPD, the NMs articulated that they felt empowered and were inspired to take action by changing their practices and voicing concerns about their work environment. For example, one



participant ensured simple fixtures were repaired, so that basic practices could be possible, such as handwashing and infection prevention. The rich data that emerged during the second phase of this mixed-methods study provided greater understanding and knowledge of the outcomes of attending the CPD programs provided by GHAWA. The knowledge generated from this research highlighted tangible opportunities to help maintain and sustain the future direction of CE in Tanzania. As illustrated in Figure 28, it is necessary to consider the development of a CPD model that involves input from staff, healthcare organisations, policy makers, government administrators, similar aid development programs and research programs.



**Figure 28: Possible Model of Various Stakeholders to Develop Sustainable CPD**

CPD is fundamental for staff working in healthcare organisations to provide best practice and optimal patient outcomes. To implement CPD change in Tanzania, it is necessary to involve policy makers and government administrators to help maintain and sustain CPD into the future. Strategic development programs and research also plays a key role in developing a sustainable model. This study represents and contributes important findings about CPD for NMs from an evidence-based global and developing nation context. The next section discusses the implications for various stakeholders to develop sustainable CPD in Tanzania.

## **6.3 Significance of the Findings for Nursing and Midwifery in Tanzania**

The most significant finding from this research—the reduction of maternal mortality noted by the TNMs—indicates that CPD and education have the ability to alter clinical practice, and consequently improve patient care and outcomes. While some of these NMs had the will and aptitude to support their colleagues and be potential mentors in the workplace, they did not have the means and capacity to do so, as they worked in a society in which they were severely short of staff, and too busy with their daily clinical work to perform additional tasks. As such, this study highlights the below implications.

### **6.3.1 Implications for Clinical Education**

This study acknowledges the breadth of the challenges faced by NMs in Tanzania, including the lack of human resources and medical resources. However, this study demonstrates that the motivated staff supported their colleagues by sharing their knowledge gained after participating in CPD. The effects generated a sense of efficiency in the workplace, which positively altered the status quo among coworkers and patients. This led to the question of how to sustain CPD for the current and future of Tanzania, which was examined in this study. Among other things, sustainable CPD will require the following.

- First, it is necessary to provide ongoing support for clinical education. A tangible way to achieve this is to capitalise on local NMs who are dedicated and committed to enhancing the professional development of the NM workforce within the organisation.
- Second, the issue of understaffing is recognised in this study, yet the issue of professional development is equally critical. This study suggests a trial in which motivated individuals could be, for example, rostered to one shift per fortnight specifically to teach (without any patient load that day). When undertaking the role of a staff development nurse midwife or clinical educator/mentor, dedicated time should be set aside to prepare and deliver education, including clinical supervision support of staff to maintain standards. This would minimise the existing nursing and midwifery workload concerns, as well as the dilemma of having to care for patients and perform the additional task of teaching. This

strategy could help augment the current CPD situation and enhance the NMs' overall clinical practice and knowledge.

- Third, the findings of this study raised the potential question of what motivated these NMs to attend CPD. While this was not within the scope of the study, the need to understand NMs' thinking in this area is central to stimulating learning and motivating staff to attend clinical education.
- Finally, appropriate remuneration by the organisation for providing clinical education to fellow coworkers could further encourage a pathway for career development, and serve as a retention strategy in an already overwhelmed workforce.

### **6.3.2 Implications for Clinical Practice**

As identified in this study, staff development for NMs in Tanzania is ad hoc and unstructured, and it remains unclear how standards are monitored and maintained.

- Consequently, there is a serious need for CE in the workplace to improve local capacity and clinical practice, and subsequently help save lives.
- Parallel to the above recommendations for clinical education, the presence of a staff development nurse midwife or clinical educator/mentor on the wards could help assess staff's clinical competencies and ensure that the individual needs of clinical areas are met.

In turn, this would create a supportive environment that fosters a culture of lifelong learning to improve clinical practice. This notion aligns with the national guidelines for professional practice and requirement for NM re-licensure to practice in Tanzania.

### **6.3.3 Implications for Health Organisations, Policy Makers, Training Institutions and Aid Development Programs**

The findings of this study have provided valuable insights from a group of TNMs who were adaptable, made changes, gave quality care, and subsequently witnessed life-changing outcomes in their patients. From a workforce morale perspective, this created a sense of empowerment, enthusiasm and motivation. Thus, a key consideration for health organisations is to find a way to maintain this momentum. This could be achieved in the following ways.

- First, it is advisable to capitalise on the capabilities of specific NMs who display the attributes of good clinical educators (in consideration of those recommended in Sections 6.3.1 and 6.3.2). Therefore, central to moving Tanzania’s nursing and midwifery workforce forward in embracing CPD, creating local opportunities for CE, and ensuring CPD’s sustainability into the future, it is critical to invest in a strategic professional development model that is supported by healthcare organisations.
- Second, government and policy makers can significantly influence the stability and sustainability of providing CE locally. This recommendation needs to be further tested.
- Third, when implementing a model, a centralised or cluster approach should be considered, whereby hospitals within a region could form a centre of excellence for CPD that is staffed with designated positions, who are responsible for centrally coordinating and delivering staff development education, including ‘train the trainer’ skills, clinical skills support and competency assessment. As supported by Campbell-Yeo et al. (2014), this strategy would facilitate the development of nursing expertise, streamline human resource management, and ultimately improve outcomes. In areas of high need, where support is required, it would also be beneficial to have centralised partnerships with appropriate training institutions and foreign aid programs to develop and facilitate professional development education to meet the unique needs of the health organisation. Keane (2016) also supported a centralised nurse education service model, which was described as a cost-effective model for health organisations that allows for consistency of training and reduces duplication and scales of economy.

#### **6.3.4 Implications for Research**

The views of the NMs from Australia who served as CPD educators and the NMs from Tanzania who were attendees of the education have been captured and compared in this study, thereby giving greater insight into the current state of CPD in Tanzania. However, further research in this area is still necessary. Some recommendations include:

- Examining the views about CPD of nursing and midwifery managers, hospital executives, and the registration and government authorities responsible for the NM workforce. Using a qualitative approach could provide a broader perspective

of CE in the country, and help uncover potential challenges when developing the centralised model suggested in this study.

- Trialling a strategic CPD education model across one hospital or region—for example, by using a mixed-methods approach, undertake a pre- and post-study to determine the effect of the model on staff and patient outcomes. Examination of staff productivity and the costs associated with the model could also be incorporated.
- Undertaking projects that use theories—such as lifelong learning theory, motivational theory, organisational learning theory and force field analysis theory—to better understand the causal links of workplace constraints and CPD to change within health organisations should be considered.
- Undertaking patient outcomes research by measuring, for instance, the clinical incidents and patient outcomes before and after attending CPD in a specific area would be a worthwhile study.
- Evaluating the awareness of the registration and renewal of licensure policy implemented by the TNMC (in 2014) among NMs in Tanzania. This could provide insight into the effectiveness of the policy and identify adherence to CPD in the country.

## **6.4 Conclusions**

New information about CPD and CE in Tanzania has resulted from the findings of this study. While workplace challenges are acknowledged, so are the benefits of CPD. The results demonstrate that CPD directly influenced several aspects, including staff efficiency, staff morale, and, importantly, the end users of hospitals—with patients' lives saved because of improved knowledge and practice. As the TNMs became better able to provide quality care after attending CPD, they became keener to engage in CPD and were empowered to impart their knowledge with their coworkers to provide high-quality care. The struggle and frustration for them was that, while they acquired new knowledge and were better equipped in their skills, their abilities were hampered by the lack of resources and infrastructure to support them. The recommendations identified in this chapter could help assist some of the concerns raised in this study. The NMs' explanations emphasised the importance of ongoing education and the need for designated staff development peer group educators and mentors as fundamental to sustaining CPD into the future. Thus,

further research in this area, including the proposed recommendations, must be explored and evaluated in the future. Appropriate policy to regulate CPD and adequate funding to enable the practicalities of CE are, in addition, central to implementing changes that can be more sustainable.

## **6.5 Final Personal Reflection**

As the author and researcher of this study, it has been a privilege to be a part of this incredible journey. Today, while I reflect at the end of this study and experience, it is gratifying to learn that my peers in Tanzania have gained much from the education, and the results have positively affected the lives of their patients. It is most humbling to recognise that the experience has taught me a great deal. Through embarking on this higher degree education journey, not only have I gained a good understanding about research and the various methodologies involved, I have also gained a greater appreciation about being a global citizen, where CPD is central to our personal and professional growth. To my fellow TNMs, despite the daily challenges, you demonstrated that you are capable of achieving great things, including influencing change and leading the future direction of CPD. I appreciate that navigating a pathway to implement the recommendations of my study will require significant commitment by all concerned; however, I truly believe that, with a united approach, positive change can be enacted. Thus, to this end, in the words of Clare Fagin (as cited in Quotery, 2014), ‘Knowledge will bring you the opportunity to make a difference’. Embrace the opportunity and keep moving forward.

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# Appendices

## Appendix A: UNDA Research Proposal Approval Letter



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11 December 2014

Jenni Ng  
173 Stock Road  
Palmyra WA 6157

Dear Jenni

On behalf of the School of Nursing & Midwifery, I write to advise you of approval of your research proposal and full candidacy in your Masters studies.

The Research Office congratulates you on this achievement and wishes you well for your research program. Please do not hesitate to contact the Research Office or your Supervisors if you have any questions about your candidacy.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Peta Sanderson', written in a cursive style.

**Professor Peta Sanderson**  
Pro Vice Chancellor – Research

cc: Dr Karen Clark-Burg, Acting Dean, School of Nursing & Midwifery  
Assoc. Prof Caroline Bulsara, Chair, SRC  
Dr Mark Jones, Principal Supervisor  
Prof Selma Allix, Co-Supervisor  
Dr Julia Alessandrini, Higher Degree by Research Education Coordinator

## Appendix B: UNDA Ethics Approval Letter



11 September 2014

Professor Selma Allix & Ms Jenni Ng  
School of Nursing & Midwifery  
The University of Notre Dame Australia  
Fremantle Campus

19 Mount Street (PO Box 1225)  
Fremantle, Western Australia 6959

Telephone: +61 8 9433 0555

Facsimile: +61 8 9433 0544

Email: enquiries@nd.edu.au

Internet: www.nd.edu.au

AEN: 69 336 643 216

CIRCOS PROVIDER CODE: 01032F

Dear Selma and Jenni,

**Reference Number: 014149F**

**Project Title: "The effectiveness and sustainability of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A mixed method study."**

Your response to the conditions imposed by a sub-committee of the university's Human Research Ethics Committee, has been reviewed and based on the information provided has been assessed as meeting all the requirements as mentioned in *National Statement on Ethical Conduct in Human Research (2007)*. Therefore, I am pleased to advise that ethical clearance has been granted for this proposed study.

***All research projects are approved subject to standard conditions of approval. Please read the attached document for details of these conditions.***

On behalf of the Human Research Ethics Committee, I wish you well with your study.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Natalie Giles'.

Dr Natalie Giles  
Research Ethics Officer  
Research Office

cc: Dr Karen Clark-Burg, Acting Dean, School of Nursing & Midwifery;  
Dr Caroline Bulsara, SRC Chair, School of Nursing & Midwifery.

## **Appendix C: Discussion Paper to WAHNMAC and Email Correspondence from Committee Members Supporting the Study**

### **DISCUSSION PAPER**

**TO:** Members WA Health Nursing and Midwifery Advisory Council (WAHNMAC)  
**FROM:** Jenni Ng, GHAWA Program Manager, Nursing and Midwifery Office  
**DATE:** 12 October 2015  
**RE:** Global Health Alliance WA Program Research

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### **PROPOSAL**

To undertake an evaluation of the effectiveness and sustainability of continuing professional development (CPD) from nurses and midwives who participated in education programs offered by Global Health Alliance Western Australia.

### **BACKGROUND**

- In 2010, the Global Health Alliance Western Australia (GHAWA) program was initiated as an outcome of the Deputy Premier, Minister for Health, Dr. Kim Hames' visit to Tanzania.
- GHAWA is a health capacity building initiative administered under the auspices of the Nursing and Midwifery Office within the Department of Health (DOH) Western Australia (WA).
- The core objective of the program is to assist underserved communities and countries by enhancing the capability and capacity of the nursing and midwifery workforce, in this case Tanzania. This is achieved by professional development education delivered by WA expert volunteers from the nursing and midwifery profession.
- There is a wealth of information to draw from program participants, both in WA and Tanzania, to establish and evaluate the effectiveness and sustainability of the program.
- In 2013, the concept of training the trainer was introduced as part of GHAWA course deliverables.

### **DISCUSSION**

- Embedded in the program is a yearly review of the courses conducted by GHAWA and reported to the Minister of Health and other key stakeholders, including the Department of Foreign Affairs AustraliaAID.
- To facilitate a deeper understanding, Jenni Ng intends to conduct scholarly research as part of a Master of Philosophy with the University of Notre Dame Australia (UNDA).
- The study has several aims. These include:
  - explore the perception and effectiveness of CPD of the GHAWA program,
  - describe the suitability of CPD in Tanzania



- identify whether the sharing of knowledge amongst the Tanzanian nurses and midwives occurs beyond attending GHAWA's program.
- The use of quantitative and qualitative designs informed by a mixed method approach will be utilised for this evaluative study.
- To achieve these aims past participants will be invited to:
  - participate in focus groups (Tanzanian nurses and midwives)
  - participate in focus groups and one-on-one interviews (WA Health nurses and midwives)
- These participants represent the 2013 cohort who experienced or delivered the training the trainer model.
- This evaluative strategy will identify the effectiveness of the programs delivered by GHAWA, and clarify any barriers or enablers.
- Ethics approval has been granted by the UNDA HREC (attached). In addition, approval to conduct research in Tanzania has also been approved by a Tanzanian University and the Tanzania Commission for Science and Technology (the peak body responsible for ethics and review of activities concerning research development in Tanzania and authorisation of research activity by foreign nationals). See attached for ethics approval.


## **RECOMMENDATION**

- WAHNMAC members support/endorse the project and give permission for the researcher to invite staff from their respective health services, who previously volunteered during the 2013 program, to receive an invitation to participate in this study.

### *Attachments:*

1. *UNDA Research Ethics Approval*
2. *COSTECH Permit to conduct research in Tanzania*
3. *Hubert Kairuki Memorial University - Tanzanian University Ethics Clearance*

## Appendix D: COSTECH Research Permit

TANZANIA COMMISSION FOR SCIENCE AND TECHNOLOGY (COSTECH)	
	Ali Hassan Mwinyi Road P.O. Box 4362 Dar es Salaam Tanzania
Telephones: (255 - 022) 2775335 - 6, 2700745/6 Director General: (255 - 022) 2700750/4, 2775335 Fax: (255 - 022) 2775313 Email: rclearance@costech.or.tz	
<b>RESEARCH PERMIT</b>	
No. 2015-97-NA-2015-36	10 <sup>th</sup> August 2015
1. Name :	Jenni Yan Ing Ng
2. Nationality :	Australian
3. Title :	<b>The Perceived Effectiveness and Sustainability of Continuing Professional Development in Australia and Tanzania Following Nurses and Midwives Participation in Continuing Education Programs Offered by Global Health Alliance Western Australia (GHAWA): a Mixed Method Study</b>
4. Research shall be confined to the following region(s):	<b>Dar es Salaam</b>
5. Permit validity from:	<b>10<sup>th</sup> August 2015 to 09<sup>th</sup> August 2016</b>
6. Contact /Collaborator:	<b>Dr. Sebald Leshabari, MUHAS, Dar es Salaam</b>
6. Researcher is required to submit progress report on quarterly basis and submit all Publications made after research.	
 M. Mushi for: <b>DIRECTOR GENERAL</b>	

TANZANIA COMMISSION FOR SCIENCE AND TECHNOLOGY  
(COSTECH)



Telephones: (255 - 022) 2775155 - 6, 2700745/6  
Director General: (255 - 022) 2700750&2775315  
Fax: (255 - 022) 2775313  
Email: [clearance@costech.or.tz](mailto:clearance@costech.or.tz)

*In reply please quote: CST/RCA 2015/36*

Ali Hassan Mwinyi Road  
P.O. Box 4302  
Dar es Salaam  
Tanzania

10<sup>th</sup> August 2015

Director of Immigration Services  
Ministry of Home Affairs  
P.O. Box 512

DAR ES SALAAM

Dear Sir/Madam,

**RESEARCH PERMIT**

We wish to introduce Jenni Yan Ing Ng from Australia who has been granted Research Permit No. 2015-97-NA-2015-36 dated 10<sup>th</sup> August 2015

The permit allows him/her to do research in the country "The Perceived Effectiveness and Sustainability of Continuing Professional Development in Australia and Tanzania Following Nurses and Midwives Participation in Continuing Education Programs Offered by Global Health Alliance Western Australia (GHAWA): a Mixed Method Study"

We would like to support the application of the researcher(s) for the appropriate immigration status to enable the scholar(s) begin research as soon as possible.

By copy of this letter, we are requesting regional authorities and other relevant institutions to accord the researcher(s) all the necessary assistance. Similarly the designated local contact is requested to assist the researcher(s).

Yours faithfully

A handwritten signature in blue ink, appearing to be 'M. Mushi', is written over a circular stamp or seal.

for: **DIRECTOR GENERAL**

CC:

1. Regional Administrative Secretary: Dar es Salaam
2. Local contact: Dr. Sebald Leshabari, MUHAS, Dar es Salaam
3. Co-Researcher: None

## Appendix E: HKMU Ethical Research Committee Clearance Letter

**THE HUBERT KAIRUKI MEMORIAL UNIVERSITY (HKMU)**  
Incorporated in The Mission Mikocheni Health and Education Network (MMHEN)

Tel: 255-22-2700021/4  
Fax: 255-22-2775591  
E-mail: [info@hkmu.ac.tz](mailto:info@hkmu.ac.tz)  
or [secvc@hkmu.ac.tz](mailto:secvc@hkmu.ac.tz) Dar  
web: [www.hkmu.ac.tz](http://www.hkmu.ac.tz)



322 Regent Estate,  
P. O. Box 65300,  
Dar es Salaam,  
TANZANIA

REF: HK/ERC/015-416

Date: 22<sup>nd</sup> July, 2015

**RE: ETHICAL CLEARANCE FOR YOUR STUDY TITLED** *"The Effectiveness and Sustainability of Continuing professional Development from the Perspective of Nurses and Midwives who Participated in Continuing Education Programs Offered by Global Health Alliance Western Australia: A Mixed Method Study"*

**Principal Investigator:**

M/S Yan Ing (Jenni) Ng,

This is to inform you that the Hubert Kairuki Memorial University Ethical Review Committee (ERC) has under the mandate of SOP 06 of its operating procedures reviewed and considered your application for ethical clearance of the above mentioned study and approved the following items:

- (1) Study Protocol titled *"The Effectiveness and Sustainability of Continuing professional Development from the Perspective of Nurses and Midwives who Participated in Continuing Education Programs Offered by Global Health Alliance Western Australia: A Mixed Method Study"* Version: November, 2014
- (2) Informed Consent Forms – English and Swahili Versions

Conditions that apply are clearly itemized on the Ethical Clearance Approval Form HK/ERC 04-02, Appendix 4 in our files. Your study is therefore cleared and may proceed until the next review date of this study, which will be 21<sup>st</sup> July, 2016 when this clearance becomes invalid.

Sincerely,



Prof. Sylvester L.B. Kajuna  
Chairperson, Ethical Review Committee  
Hubert Kairuki Memorial University

## Appendix F: MUHAS Letter of Support to Conduct Research



MUHIMBILI UNIVERSITY OF HEALTH AND  
ALLIED SCIENCES

SCHOOL OF NURSING  
OFFICE OF THE DEAN

P. O. BOX 65004 □ DAR ES SALAAM □□TANZANIA

TELEPHONE: 255-22 2150302-6 Ext. 245  
Direct line: + 255-22-2152467  
E-mail: seolesh@yahoo.com; sleshabari@muhas.ac.tz

Date: 15/06/2015

Tanzania Commission for Science and Technology  
Dar es Salaam, Tanzania

Dear Sir/Madam,

I provide this letter in support of Jenni Yan Ing Ng's intention to conduct research in Dar es Salaam, Tanzania, to examine *'The effectiveness and sustainability of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A Mixed Method Study'*.

The aim of the research is to consider the effectiveness of professional development programs, through provision of education and training, offered by the Global Health Alliance Western Australia Program (GHAWA) to nurses and midwives in Tanzania. This study will assist with evaluating the benefits of continuing education and determine the sustainable impact on the nurses and midwives in Tanzania as a result of participating in the program education. This important piece of work will further help inform the significance of continuing professional development, its impact on nurses and midwives in Tanzania and the sustainable development.

Please do not hesitate to contact me with questions if need be: seolesh@yahoo.com

Yours Sincerely,

Dr. Sebalda Leshabari  
Dean, School of Nursing

## Appendix G: Information Sheet for Phase Two/Stage One



### Information Sheet for WA nurses and midwives

#### Project Title

The effectiveness and sustainability of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A Mixed Method Study.

#### Project Aim

The aim of this study is to examine the effectiveness of professional development programs offered by GHAWA to nurses and midwives in Tanzania. Through the provision of education and training, GHAWA supports health professionals to improve health care outcomes in developing countries, such as Tanzania. This study will assist with evaluating the benefits of continuing education and determine the sustainable impact on the nurses and midwives in Tanzania as a result of participating in the education.

We would like to get your perception of how you think by taking part in the GHAWA course has impacted on the nurses and midwives in Tanzania.

#### Approval

This project has been approved by the Human Research Ethics Committee at University of Notre Dame Australia (approval number 014149F). The project is also supported by its collaborative university partner HKMU and MUHAS, with ethics approval being sought from the Tanzania Commission for Science and Technology (COSTECH).

If you have any concerns about the project, have any complaint regarding the manner in which a research project is conducted or wish to verify the approval, please contact the Executive Officer of the Human Research Ethics Committee, Research Office, The University of Notre Dame Australia, PO Box 1225 Fremantle WA 6959, phone (08) 9433 0943, [research@nd.edu.au](mailto:research@nd.edu.au).

Any complaint or concern will be treated in confidence and investigated. You will be informed of the outcome.

#### Procedures

This project is being conducted by Jenni Ng (Registered Nurse) under the supervision of Adjunct Prof. Mark Jones and Prof. Selma Allieux. It will form the basis for the degree of Master of Philosophy at The University of Notre Dame Australia. The researcher successfully gained an academic research grant from the Nursing and Midwifery Office, Department of Health Western Australia to conduct this project.

Information for this research will be collected in 2 phases during 2015.

The first phase will involve a review of GHAWA program. This is to look at what was delivered, where, when and how many people attending the program in 2013. Educators and participants involved in the program including mentoring and training the trainer concept education are invited to take part in this study. Facilitated focus group discussions (phase 2) will be conducted in Perth, Western Australia and advance notice will be provided.



With your permission to be a part of this research, focus group interviews seeks to identify your perception of continuing education, its relevance to you, your colleagues and patients in Tanzania, and how CPD may have impacted on the Tanzanian nurses and midwives' work role. The option for one-on-one interview is available if you wish to be interviewed individually or is not able to attend the focus group interview session.

Your information and opinions expressed will be used in a research report, relevant journal publications and conference presentations. You will not be identified in anyway. An overview of the results will be presented following research completion.

Should you agree to participate in these activities, you will be required to complete a written consent form.

#### **Risks, Discomforts and Benefits**

Your participation is entirely voluntary and you may withdraw at any time. There are no risks involved with your participation. There will be no disadvantage to yourself if you refuse to participate.

#### **Confidentiality**

Information gathered about you will be held in strict confidence. This confidence will only be broken in instances of legal requirements such as court subpoenas, freedom of information requests, or mandated reporting by some professionals.

Identifying markers will be removed prior to data analysis occurring. All data will be kept on a password protected computer and backed up on a password protected external hard drive. Should the research lead to publication participants would be unable to be identified due to the de-identification of participant's answers early in the process. Data following the conclusion of the study will be stored securely in the School of Nursing & Midwifery at The University of Notre Dame Australia for a period of five years and then will be destroyed as per the University of Notre Dame's policy.

#### **Further Information**

If you have any questions regarding the project you can contact Jenni Ng via email at [Jenni.ng@health.wa.gov.au](mailto:Jenni.ng@health.wa.gov.au)

#### **To Participate**

Please reply to this email and return the signed consent form. Thank you.

Yours Sincerely,

Jenni Ng

## Appendix H: Phase Two/Stage One—Focus Group Interview Questions

### Interview / Focus Group: WA Nurses and Midwives Questions

- Welcome and thank you for your participation
- Short brief regarding confidentiality, reminder re audio tape, and gather all consent form prior to starting
- Purpose of the study is to evaluate the effectiveness of continuing education and determine the sustainable impact on the nurses and midwives in Tanzania as a result of participating in PD short courses delivered by GHAWA

### Questions

1. Aim: To ascertain your opinion as to how Tanzanian nurses and midwives altered their practice as a result of engaging with GHAWA delivered education programs.

You all delivered education programs in Tanzania, do you think the nurses and midwives who came along got anything out of it?

Prompts: Do you think attending the program resulted in any practice changes?

1.1 If yes, what do you think improved their professional practice and role in their work place?

1.2 If no, what do you think would improve their professional practice and role in their work place?

*Prompts: Improve practice and patient care delivery, enhance the role of the nurse/midwife, self/staff motivation, work promotion*

2. What do you identified as the factors/elements of the education program that impacted on their professional development?

3. From your experience/observation during your placement period: what do you think influenced their ability to provide professional nursing care?

*Prompt for Q2 and 3: confidence, personality, self-determination, managerial support, peer support*

*If I can give you a few prompts... how do you think their confidence influenced their ability to provide professional nursing care? ... How do you think confidence impacted on their ability to improve their professional practice?*

*Why do you think that is? Can you tell me more.*



4. What do they need to provide and implement PD education/sessions in their workplace?

*Prompt: Did they mention anything? What do you think enables them to continue providing CPD education sessions in their own workplace?*

5. What do you think prevents/stop them from being able to continue providing PD education in their own workplace?

*Prompt Q5 and 6: lack of resources, lack of confidence, lack of support from management, lack of confidence, funding issues, continual CPD support from GHAWA or other NGO is necessary*

6. After participating in PD sessions what changes did you observed in their work place, their functions, roles or practices?

7. In your view, what has been the outcome of the GHAWA program for the Tz N/M i.e. participating the education sessions which you delivered as part of the GHAWA program?

*Prompt: Do you think the education program has been effective or ineffective?*

8. What do you consider to be a sustainable program?

*Prompt: What indicators/signs? How can the GHAWA program be sustained? Do you think the GHAWA program is providing a sustainable impact on Tanzanian NM? How so?*

*END of Interview/Focus group*

- Prior to conclusion - Seek if there is anything additional the participant would like to add.
- Question if the participant is happy with how the interview progressed and what was asked/covered.
- Note what will occur with findings –Analyses the interview, de-identified (no names or hospitals). Only use quotes and the themes.
- Thank them for their time.

## Appendix I: Information Sheet for Stage Two/Phase Two



### Information Sheet for Tanzanian nurses and midwives

#### Project Title

The effectiveness and sustainability of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A Mixed Method Study.

#### Project Aim

The aim of this study is to examine the effectiveness of professional development programs offered by GHAWA to nurses and midwives in Tanzania. Through the provision of education and training, GHAWA supports health professionals to improve health care outcomes in developing countries, such as Tanzania. This study will assist with evaluating the benefits of continuing education and determine the sustainable impact on the nurses and midwives in Tanzania as a result of participating in the education.

We would like to get your perception of how you think by taking part in the GHAWA course has impacted you as the nurse and midwife in Tanzania.

#### Approval

This project has been approved by the Human Research Ethics Committee at University of Notre Dame Australia (approval number 014149F), and the Tanzania Commission for Science and Technology (COSTECH permit number 2015-97-NA-2015-36). The project is also supported by its collaborative university partner HKMU and MUHAS.

If you have any concerns about the project, have any complaint regarding the manner in which a research project is conducted or wish to verify the approval, please contact the Executive Officer of the Human Research Ethics Committee, Research Office, The University of Notre Dame Australia, PO Box 1225 Fremantle WA 6959, phone (08) 9433 0943, [research@nd.edu.au](mailto:research@nd.edu.au).

Any complaint or concern will be treated in confidence and investigated. You will be informed of the outcome.

#### Procedures

This project is being conducted by Jenni Ng (Registered Nurse) under the supervision of Adj. Prof. Mark Jones and Prof. Selma Allieux. It will form the basis for the degree of Master of Philosophy at The University of Notre Dame Australia. The researcher successfully gained an academic research grant from the Nursing and Midwifery Office, Department of Health Western Australia to conduct this project.

Information will be collected in 2 phases during 2015.

The first phase will involve a review of GHAWA program. This is to look at what was delivered, where, when and how many people attending the program. Educators and participants involved in the program including mentoring and training the trainer concept education are invited to take part in this study. Facilitated focus group interviews (phase 2) will be conducted in Dar es Salaam, Tanzania and advance notice will be provided.

With your permission to be a part of this research, focus group interviews seeks to identify your perception of continuing education, its relevance to you, your colleagues and patients, and how this may have impacted on your work role. The option for one-on-one interview is available if you wish to be interviewed individually or is not able to attend the focus group interview session.

Your information and opinions expressed will be used in a research report, relevant journal publications and conference presentations. You will not be identified in anyway. An overview of the results will be presented following research completion.

Should you agree to participate in these activities, you will be required to complete a written consent form.

#### **Risks, Discomforts and Benefits**

Your participation is entirely voluntary and you may withdraw at any time. There are no risks involved with your participation. There will be no disadvantage to yourself if you refuse to participate.

#### **Confidentiality**

Information gathered about you will be held in strict confidence. This confidence will only be broken in instances of legal requirements such as court subpoenas, freedom of information requests, or mandated reporting by some professionals.

Identifying markers will be removed prior to data analysis occurring. All data will be kept on a password protected computer and backed up on a password protected external hard drive. Should the research lead to publication participants would be unable to be identified due to the de-identification of participant's answers early in the process. Data following the conclusion of the study will be stored securely in the School of Nursing & Midwifery at The University of Notre Dame Australia for a period of five years and then will be destroyed as per the University of Notre Dame's policy.

#### **Further Information**

If you have any questions regarding the project you can contact Jenni Ng via email at [Jenni.ng@health.wa.gov.au](mailto:Jenni.ng@health.wa.gov.au)

The researcher will be in Dar es Salaam in December 2015 to introduce the project, and present the objectives and process of study for conducting the focus group interviews.

#### **To Participate**

Please return the signed consent form to the researcher on the day of the focus group interview.

Yours Sincerely,

Jenni Ng

## Appendix J: Focus Group Interview Questions—Phase Two/Stage Two

### Interview / Focus Group: TZ Nurses and Midwives Questions

- Gather the group to seat closer around the table. Shut the door to minimise noise disturbance. Check recorder is working.
- Welcome and thank you for your participation
- Short brief regarding confidentiality, reminder re audio tape, and gather all consent form prior to starting
- Purpose of the study is to evaluate the effectiveness of continuing education and determine the sustainable impact on the Tanzanian nurses and midwives as a result of participating in PD short courses delivered by GHAWA

### Questions

1. Aim: To ascertain how you (Tanzanian nurses and midwives) altered your practice as a result of engaging with GHAWA delivered education programs.

You participated in the education programs in Tanzania; can you tell me what did you get out of the program?

Prompts: Do you think attending the program resulted in any practice changes? What were there?

1.1 If yes, what do you think improved your professional practice and role in the work place?

1.2 If no, what do you think would help improve your professional practice and role in the work place?

*Prompts: Improve practice and patient care delivery, enhance the role of the nurse/midwife, self/staff motivation, work promotion*

2. What do you identified as the factors/elements of the education program that impacted on your professional development?

3. What do you think influenced your ability to provide professional nursing care?

*Prompt for Q2 and 3: confidence, personality, self-determination, managerial support, peer support*

*If I can give you a few prompts... how do you think confidence influenced your ability to provide professional nursing care? ... How do you think confidence impacted on your ability to improve professional practice?*

*Why do you think that is? Can you tell me more.*

4. What do you need to provide and implement PD education/sessions in the workplace?

*Prompt: What enables you to continue providing CPD education sessions in your own workplace?*

5. What do you think prevents/stop you and your colleagues from being able to continue providing PD education in the own workplace?

*Prompt Q5 and 6: lack of resources, lack of confidence, lack of support from management, lack of confidence, funding issues, continual CPD support from GHAWA or other NGO is necessary*

6. After participating in PD sessions, did you make any changes in your workplace, functions, roles or practices? What are they?

7. In your view, what has been the outcome of the GHAWA program for you, and your colleagues? I.e. having participated in the GHAWA education sessions?

*Prompt: Do you think the education program has been effective or ineffective? How so?*

8. What do you consider to be a sustainable program?

*Prompt: What indicators/signs? How can the GHAWA program be sustained? Do you think the GHAWA program is providing a sustainable impact on Tanzanian NM? How so?*

*END of Interview/Focus group*

- Prior to conclusion - Seek if there is anything additional the participant would like to add.
- Question if the participant is happy with how the interview progressed and what was asked/covered.
- Note what will occur with findings –Analyses the interview, de-identified (no names or hospitals). Only use quotes and the themes.
- Thank them for their time.

## Appendix K: Phase Two/Stage One Consent Form



### Project Title

The effectiveness and sustainability of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A Mixed Method Study.

### Informed Consent Form

I, (participant's name) \_\_\_\_\_ acknowledge that I have read and understood the information sheet provided and give my consent to participate in this study.

- I have read and understood the Information Sheet about this project and any questions have been answered to my satisfaction.
- I understand that I will be audio-taped during the focus group and one-on-one interviews.
- I understand that all information gathered by the researcher will be treated as strictly confidential, except in instances of legal requirements such as court subpoenas, freedom of information requests, or mandated reporting by some professionals.
- I understand that I may withdraw from participating in the project at any time without prejudice.
- I understand that the protocol adopted by the University Of Notre Dame Australia Human Research Ethics Committee for the protection of privacy will be adhered to and relevant sections of the *Privacy Act* are available at <http://www.nhmrc.gov.au/>
- I agree that any research data gathered for the study may be published provided my name or other identifying information is not disclosed.

If I have questions about the research, I may contact Jenni Ng.

Participant's Signature:  Date:
Researcher's Signature: Researcher's Full Name:  Date:

*If participants have any complaint regarding the manner in which a research project is conducted, it should be directed to the Executive Officer of the Human Research Ethics Committee, Research Office, The University of Notre Dame Australia, PO Box 1225 Fremantle WA 6959, phone (08) 9433 0943, [research@nd.edu.au](mailto:research@nd.edu.au)*

## Appendix L: Phase Two/Stage Two Consent Form

English version



### Project Title

The effectiveness and sustainability of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A Mixed Method Study.

### Informed Consent Form

I, *(participant's name)* \_\_\_\_\_ acknowledge that I have read and understood the information sheet provided and give my consent to participate in this study.

- I have read and understood the Information Sheet about this project and any questions have been answered to my satisfaction.
- I understand that I will be audio-taped during the focus group and one-on-one interviews.
- I understand that all information gathered by the researcher will be treated as strictly confidential, except in instances of legal requirements such as court subpoenas, freedom of information requests, or mandated reporting by some professionals.
- I understand that I may withdraw from participating in the project at any time without prejudice.
- I understand that the protocol adopted by the University Of Notre Dame Australia Human Research Ethics Committee for the protection of privacy will be adhered to and relevant sections of the *Privacy Act* are available at <http://www.nhmrc.gov.au/>
- I agree that any research data gathered for the study may be published provided my name or other identifying information is not disclosed.

If I have questions about the research, I may contact Jenni Ng.

Participant's Signature:

Date:

Researcher's Signature:

Researcher's Full Name:

Date:

*If participants have any complaint regarding the manner in which a research project is conducted, it should be directed to the Executive Officer of the Human Research Ethics Committee, Research Office, The University of Notre Dame Australia, PO Box 1225 Fremantle WA 6959, phone (08) 9433 0943, [research@nd.edu.au](mailto:research@nd.edu.au)*



#### Kichwa cha habari kuhusu Mradi

Ufanisi na uendeleu wa kuendelea maendeleo ya kitaaluma kutokana na mtazamo wa manesi na wakunga ambao walishiriki katika kuendelea mipango ya elimu inayotolewa na Global Health Alliance Australia Magharibi: Mixed Method Utafiti.

#### Maridhiano

Mimi, (jina mshiriki) \_\_\_\_\_ Nakiri kwamba Nimesoma na kuelewa taarifa zilizotolewa na kutoa idhini yangu ya kushiriki katika utafiti huu.

- Nimesoma na kuelewa Karatasi Habari kuhusu mradi huu na maswali yoyote nimekuwa nikijibu kwa kuridhika kwangu
- Naelewa kwamba nitakuwa na mahojiano ya mmoja kwa mmoja na kurekodiwa sauti wakati wa kundi mwelekeo.
- Naelewa kwamba taarifa zote zilizokusanywa na mtafiti zitashughulikiwa kama siri, isipokuwa wakati wa matukio ya mahitaji ya kisheria kama vile subpoenas, mahakamani, uhuru wa maombi ya taarifa au mamlaka kutoa taarifa kwa baadhi ya wataalamu.
- Naelewa pia naweza kujitoa kushiriki katika mradi wakati wowote bila kuathiri.
- Naelewa kwamba itifaki liyopitishwa na Chuo Kikuu cha Notre Dame Australia Binadamu Utafiti Kamati ya Maadili kwa ajili ya ulinzi wa faragha itakuwa kuzingatiwa na sehemu husika ya Sheria ya faragha zinapatikana katika <http://www.nhmrc.gov.au/>
- Ninakubali kwamba data zozote utafiti wamekusanyika kwa ajili ya utafiti inaweza kuwa na kuchapishwa zinazotolewa jina langu au nyingine kutambua habari siwazi.

Kama nina maswali kuhusu utafiti, Nitawasiliana na Jenni Ng.

Mshiriki Sahihi:
Tarehe:
Mtafiti Sahihi:
Mtafiti Jina kamili:
Tarehe:

Kama washiriki wana malalamiko yoyote kuhusu namna ambayo mradi wa utafiti huo unafanyika, wapeleke malalamiko kwa Afisa wa Utafiti Binadamu Kamati ya Maadili, Ofisi ya Utafiti, Chuo Kikuu cha Notre Dame Australia, PO BOX 1225 Fremantle WA 6959, simu (08) 9433 0943, [research@nd.edu.au](mailto:research@nd.edu.au)



## **Appendix M: Introduction Email to WA Cohort—Phase Two/Stage One**

Correspondence – Invitation to participate in research

Dear

GHAWA has been delivering short professional development courses for the past few years in Tanzania and since joining the GHAWA team it has been my intention to evaluate the effectiveness of the program.

I am presently undertaking a research study through the University of Notre Dame Australia and its forms the basis for a higher degree Master of Philosophy.

I am writing to seek your support in conducting this important piece of work. The details of my research is as follow, and I wish to invite volunteers of the 2013 group to participate in a focus group interview.

### Project Title

The effectiveness and sustainability of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A Mixed Method Study.

### Project Aim

The aim of this study is to examine the effectiveness of professional development programs offered by GHAWA to nurses and midwives in Tanzania. Through the provision of education and training, GHAWA supports health professionals to improve health care outcomes in developing countries, such as Tanzania. This study will assist with evaluating the benefits of continuing education and determine the sustainable impact on the nurses and midwives in Tanzania as a result of participating in the education.

The small focus group interview will be held on date and venue. It should take about 1 to 1.5 hr.

I have attached here, the information sheet and consent form for your information and completion, participation is voluntary. Feel free to get in touch if you have any questions. The option for one-on-one interview is available if you wish to be interviewed individually or not able to attend the focus group interview session.

Thank you in advance and I look forward to hear from you.

Regards,

Jenni Ng

Attach <Consent form>

Attach <Information Sheet for nurses and midwives>

## **Appendix N: Introduction Letters to Tanzanian Health Services for Phase Two/Stage Two**

Director/Principal of Nursing Services/Medical Officer in Charge – Name of Hospital/Institution

Dear Sir/Madam,

The Global Health Alliance Western Australia (GHAWA) program has been delivering short professional development education and training courses for the past few years.

To evaluate the program, I am writing to seek your support in conducting an important piece of work; that is to examine the effectiveness and sustainability of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by GHAWA.

I wish to inform that local Tanzanian research permission has been sought and approved (COSTECH permit number 2015-97-NA-2015-36).

Thank you for your invaluable support of encouraging staff within your organisation to participate in GHAWA's continuing education program, and I would very much appreciate your continued assistance to encourage nurses and midwives who previously attended our program (especially those from 2013 so as to enable a richer understanding of the progress and outcome) to participate in a focus group meeting.

In December 2015, I will be travelling to Tanzania and I wish to arrange a suitable time on site to conduct focus group meeting with nurses and midwives from your hospital. The meeting will take approximately 45 minutes to a maximum of 1.5 hours.

It is my hope that the discussion will assist with evaluating professional development education and determine the impact on the local nurses and midwives as a result of participating in the education. The WHO Nursing and Midwifery Strategic Direction highlights that investment in human resources for health is important in enhancing knowledge, practice and care outcomes. This is in line with GHAWA's objective to assist the capacity and capability building of Tanzanian nurses and midwives working in Dar es Salaam.

I trust you will agree that the findings will be invaluable and will provide recommendations to help shape the way forward.

Please find enclosed a copy of the information sheet and consent form relating to this study.

A colleague of mine in Tanzania will follow up with you to arrange a suitable time on site for the focus group meeting.

Asante sana.

Yours Sincerely,

Jenni Ng

## Appendix O: Confidentiality Agreement—Transcriptionist

### Confidentiality Agreement

#### Transcriptionist

I, \_\_\_\_\_ transcriptionist, agree to maintain full confidentiality in regards to any and all audiotapes and documentations received from Jenni Ng related to her research study on the researcher study titled: The effectiveness and sustainability of continuing professional development from the perspective of nurses and midwives who participated in continuing education programs offered by Global Health Alliance Western Australia: A Mixed Method Study.

Furthermore, I agree:

1. To hold in strictest confidence the identification of any individual that may be inadvertently revealed during the transcription of audio-taped interviews, or in any associated documents.
2. To not make copies of any audiotapes or computerized titles of the transcribed interviews texts, unless specifically requested to do so by the researcher, Jenni Ng.
3. To store all study-related audiotapes and materials in a safe, secure location as long as they are in my possession.
4. To return all audiotapes and study-related materials to Jenni Ng in a complete and timely manner.
5. To delete all electronic files containing study-related documents from my computer hard drive and any back-up devices.

I am aware that I can be held responsible for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information contained in the audiotapes and/or files to which I will have access.

Transcriber's name (printed) \_\_\_\_\_

Transcriber's signature \_\_\_\_\_

Date \_\_\_\_\_

## Appendix P: Focus Group Interview Schedule in Dar es Salaam, Tanzania

Focus group schedule in Tanzania

No	Date	Start Time	Duration	Location	On Site Venue	FREQUENCY from 2013 data	PARTICIPANTS - Attended FG session 2015	Notes
1			31 Mins 32 Sec		Maternity Block	53	6	RNM x6
2			41 Mins 34 Sec		Conference Room	24	4	EN x2, RNM x2 All attended 2015 ACC
3			35 Mins 38 Sec		Matron Office	26	6	RNM x6 (1 working at the OPD, all others working at Midwifery ward)
4			35 Mins 54 Sec		KH Meeting Room	9/6	9	4 lecturers/5 RNM
5			28 Mins 15 Sec		Maternity Block Meeting Room	27	3	RNM x3 ( 1 working at surgical ward)
6			36 Mins 01 Sec		Meeting Room	2	5	EN 1 Nursing Attendant 1 RNM 3 All 2015 GHAWA Midwifery course attendees - delivered by MNH staff

Total 33 participants

## Appendix Q: Description of Organisations in Tanzania

Organisations where CPD was provided by GHAWA in 2013

Organisation Code Number	Description
Organisation One	Public hospital located in the urban area within Dar es Salaam
Organisation Two	Public teaching hospital where major trauma and complex care are referred. It is located in the urban area of Dar es Salaam
Organisation Three	Public maternity school, co-located within the grounds of Organisation Two
Organisation Four	Private health education institution located in the urban area of Dar es Salaam
Organisation Five	Private teaching hospital located within the urban area of Dar es Salaam, and is co-located together with Organisation Four above
Organisation Six	Public hospital located in the outer urban area of Dar es Salaam
Organisation Seven	Public hospital located in the outer urban area of Dar es Salaam
Organisation Eight	Public hospital located in the rural area of Dar es Salaam